State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
6612C015	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ALAN CUMMINGS
304-558-2402

VENDOR
*709022308 614-486-8994
NOXIOUS VEGETATION CONTROL INC
PO BOX 21757

COLUMBUS OH 43221-0757

RECEIVED JAN 23 2012

SHIP TO
DIVISION OF HIGHWAYS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/18/2012				

BID OPENING DATE: 03/14/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		675-85		

HERBICIDES, ADJUVANTS, AND OTHER ITEMS

OPEN END CONTRACT

THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS FOR AN OPEN END CONTRACT TO PROVIDE HERBICIDES, ADJUVANTS, SAFETY AND OTHER MISCELLANEOUS ITEMS FOR ALL TEN DISTRICTS PER THE ATTACHED SPECIFICATIONS.

TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO ALAN CUMMINGS IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA FAX AT 304-558-4115 OR VIA EMAIL AT ALAN.W.CUMMINGS@WV.GOV.

DEADLINE FOR TECHNICAL QUESTIONS IS 02/17/12 AT THE CLOSE OF BUSINESS.

ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM TO BE ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.

A MANDATORY PRE-BID MEETING WILL BE HELD ON 2/23/12 AT 11:00 A.M., IN THE WEST VIRGINIA STATE PURCHASING DIVISION LOCATED AT 2019 WASHINGTON STREET EAST, CHARLESTON, WV 25305. ALL INTERESTED PARTIES ARE REQUIRED TO ATTEND THIS MEETING. FAILURE TO ATTEND THE MANDATORY PRE-BID SHALL RESULT IN DISQUALIFICATION OF THE BID. NO ONE PERSON MAY REPRESENT MORE THAN ONE

RECEIVED
2012 MAR 13 AM 9:56
WV PURCHASING DIVISION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
Mark Jones	(614)486-8994	3/9/12

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Area Manager	31-4444304	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.

2. The State may accept or reject in part, or in whole, any bid.

3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required $125 fee.

4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.

5. Payment may only be made after the delivery and acceptance of goods or services.

6. Interest may be paid for late payment in accordance with the ***West Virginia Code***.

7. Vendor preference will be granted upon written request in accordance with the ***West Virginia Code***.

8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.

10. The laws of the State of West Virginia and the ***Legislative Rules*** of the Purchasing Division shall govern the purchasing process.

11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.

12. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.

13. HIPAA BUSINESS ASSOCIATE ADDENDUM: The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at **www.state.wv.us/admin/purchase/vrc/hipaa.html** and is hereby made part of the agreement provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

14. CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf.

15. LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

16. ANTITRUST: In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.

2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.

3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.

4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130

5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).

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15. LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

16. ANTITRUST: In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

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304-558-2402

VENDOR
*709022308 614-486-8994
NOXIOUS VEGETATION CONTROL INC
PO BOX 21757

COLUMBUS OH 43221-0757

SHIP TO
DIVISION OF HIGHWAYS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/18/2012				

BID OPENING DATE: 03/14/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

BIDDER.

AN ATTENDANCE SHEET WILL BE MADE AVAILABLE FOR ALL POTENTIAL BIDDERS TO COMPLETE. THIS WILL SERVE AS THE OFFICIAL DOCUMENT VERIFYING ATTENDANCE AT THE MANDATORY PRE-BID. FAILURE TO PROVIDE YOUR COMPANY AND REPRESENTATIVE NAME ON THE ATTENDANCE SHEET WILL RESULT IN DISQUALIFICATION OF THE BID. THE STATE WILL NOT ACCEPT ANY OTHER DOCUMENTATION TO VERIFY ATTENDANCE.

THE BIDDER IS RESPONSIBLE FOR ENSURING THEY HAVE COMPLETED THE INFORMATION REQUIRED ON THE ATTENDANCE SHEET. THE PURCHASING DIVISION AND THE STATE AGENCY WILL NOT ASSUME ANY RESPONSIBILITY FOR A BIDDER(S) FAILURE TO COMPLETE THE PRE-BID ATTENDANCE SHEET. IN ADDITION, WE REQUEST THAT ALL POTENTIAL INCLUDE THEIR PHONE AND FAX NUMBERS.

ALL POTENTIAL BIDDERS ARE REQUESTED TO ARRIVE PRIOR TO THE START TIME FOR THE PRE-BID. BIDDERS WHO ARRIVE LATE, BUT PRIOR TO THE DISMISSAL OF THE TECHNICAL PORTION OF THE PRE-BID WILL BE PERMITTED TO SIGN IN. BIDDERS WHO ARRIVE AFTER CONCLUSION OF THE TECHNICAL PORTION OF THE PRE-BID BUT DURING ANY SUBSEQUENT PART OF THE PRE-BID WILL NOT BE PERMITTED TO SIGN THE ATTENDANCE SHEET.

EXHIBIT 10

REQUISITION NO.: .....

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
Alan Cummings	(614)486-8994	3/9/12

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Area Manager	31-4444304	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

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ADDENDUM NO.'S:

NO. 1 ✓

NO. 2 ✓

NO. 3

NO. 4

NO. 5

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.

VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.

Mark Cummings
SIGNATURE

NOVCO Inc.
COMPANY

3/9/12
DATE

NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE BID.

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
Mark Cummings	(614) 486-8994	3/9/12

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Area Manager	31-4444304	

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REV. 09/21/2009

EXHIBIT 3

LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE ON AWARD AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE.

UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT BY THE STATE OF WEST VIRGINIA, ITS AGENCIES, OR POLITICAL SUBDIVISIONS, THE TERMS, CONDITIONS, AND PRICING SET FORTH HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.

RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.

CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.

OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
[signature]	(614) 486-8994	3/9/12

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Area Manager	31-4444304	

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AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANSPORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.)

QUANTITIES: QUANTITIES LISTED IN THE REQUISITION ARE APPROXIMATIONS ONLY, BASED ON ESTIMATES SUPPLIED BY THE STATE SPENDING UNIT. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACT SHALL COVER THE QUANTITIES ACTUALLY ORDERED FOR DELIVERY DURING THE TERM OF THE CONTRACT, WHETHER MORE OR LESS THAN THE QUANTITIES SHOWN.

ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN STATE CONTRACT ORDER (FORM NUMBER WV-39) TO THE VENDOR FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL COPY OF THE WV-39 SHALL BE MAILED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT, A SECOND COPY MAILED TO THE PURCHASING DIVISION, AND A THIRD COPY RETAINED BY THE SPENDING UNIT.

BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.

THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED DOCUMENTS SUCH AS PRICE LISTS, ORDER FORMS, SALES AGREEMENTS OR MAINTENANCE AGREEMENTS, INCLUDING ANY ELECTRONIC MEDIUM SUCH AS CD-ROM.

REV. 01/17/2012

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
Alan Cummings	(614) 486-8994	3/9/12

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Area Manager	31-4444304	

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EXHIBIT 4

LOCAL GOVERNMENT BODIES: UNLESS THE VENDOR INDICATES IN THE BID HIS REFUSAL TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO COUNTY, SCHOOL, MUNICIPAL AND OTHER LOCAL GOVERNMENT BODIES, THE BID SHALL EXTEND TO POLITICAL SUBDIVISIONS OF THE STATE OF WEST VIRGINIA. IF THE VENDOR DOES NOT WISH TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO ALL POLITICAL SUBDIVISIONS OF THE STATE, THE VENDOR MUST CLEARLY INDICATE SUCH REFUSAL IN HIS BID. SUCH REFUSA SHALL NOT PREJUDICE THE AWARD OF THIS CONTRACT IN ANY MANNER.

REV. 3/88

PURCHASING CARD ACCEPTANCE: THE STATE OF WEST VIRGINI CURRENTLY UTILIZES A VISA PURCHASING CARD PROGRAM WHICH IS ISSUED THROUGH A BANK. THE SUCCESSFUL VENDOR MUST ACCEPT THE STATE OF WEST VIRGINIA VISA PURCHASING CARD FOR PAYMENT OF ALL ORDERS PLACED BY ANY STATE AGENCY AS A CONDITION OF AWARD.

NOTICE

A SIGNED BID MUST BE SUBMITTED TO:

DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
BUILDING 15
2019 WASHINGTON STREET, EAST
CHARLESTON, WV 25305-0130

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
[signature]	(614) 486-8994	3/9/12

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Area Manager	31-4444304	

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THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:

SEALED BID

BUYER: ALAN CUMMINGS - FILE 33

RFQ. NO.: 6612C015

BID OPENING DATE: 03/14/2012

BID OPENING TIME: 1:30 P.M.

PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:

(614) 486-7531

CONTACT PERSON (PLEASE PRINT CLEARLY):

Michael Jennings

ANY INDIVIDUAL SIGNING THIS BID IS CERTIFYING THAT: (1) HE OR SHE IS AUTHORIZED BY THE BIDDER TO EXECUTE THE BID OR ANY DOCUMENTS RELATED THERETO ON BEHALF OF THE BIDDER, (2) THAT HE OR SHE IS AUTHORIZED TO BIND THE BIDDER IN A CONTRACTUAL RELATIONSHIP, AND (3) THAT THE BIDDER HAS PROPERLY REGISTERED WITH ANY STATE AGENCIES THAT MAY REQUIRE REGISTRATION.

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
Michael Cummings	(614) 486-8994	03/09/2012

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Area Manager	31-4444304	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

Highways. The labels shall provide pertinent information regarding product storage and handling or this information shall otherwise be provided with each shipment.

3. TRAINING AND TECHNICAL ASSISTANCE

In order to bid on and be awarded items on this contract, the vendor must have a representative, holding a valid Category 7 certification in West Virginia, available to provide training and technical assistance as required or upon request by Division of Highways personnel, including but not limited to, an annual Division of Highways Vegetation Management Seminar and this person is encouraged to attend the mandatory pre-bid meeting. Each bidder shall submit the name and telephone number of their representative with bid. The company shall have a valid Category 12 certification in West Virginia. Copies of these certifications shall be submitted with the bid.

The vendor's failure to submit the above certification information with their bid, shall result in the total disqualification of the vendor's bid.

NAME OF REPRESENTATIVE	PHONE NUMBER	ADDRESS
Michael Jennings	(614) 486-8994	PO Box 21757 Columbus OH 43221

4. CONTRACT AWARD

It is the intent to award a contract for each product listed on the Bid Schedule. Qualified vendors who submit a valid low bid will be awarded a contract for those products for which their bid is low, provided that the vendor has listed the trade name and EPA Registration Number on the Bid Schedule for each product bid, as indicated in Section 2. Failure to list this information will result in the disqualification of the vendor's bid on that product.

The award for each product will be based on the bid price per unit of measure as requested on the Bid Schedule. Vendors are cautioned that the quantities on the Bid Schedule are estimates and only used for evaluation purposes.

The State of West Virginia reserves the right to make multiple awards on this contract when it is in the best interest of the State to do so.

5. ACCEPTANCE PLAN

With each delivery of herbicide products to the Division of Highways, the vendor shall certify that the products delivered conform to the properties described in the EPA Registration.

Material failing to comply with the quality requirement will not be accepted.

1. SPECIFICATIONS

The following sections of the West Virginia Department of Transportation, Division of Highways Standard Specification Roads and Bridges, adopted 2010, as modified by the January 1, 2011 Supplemental Specifications shall apply to the administration of this Contract: 101, 102.4, 102.5, 105.1, 105.3, 105.4, 105.10, 105.11, 105.12, 105.13, 106.3, 106.4, 106.5, 106.6, 106.7, 106.9, 107.1, 107.2, 107.3, 107.14, 107.19, 107.20, 108.8, 109.1, 109.2, and 109.20

The terms "Contractor" and "Vendor" used in the above specifications or this contract are interchangeable. Contractor shall mean Vendor and Vendor shall mean Contractor.

West Virginia Department of Transportation, Division of Highways Standard Specifications Roads and Bridges, adopted 2010 and the January 1, 2011 Supplemental Specifications may be obtained from:

West Virginia Division of Highways
Contract Administration
Building 5, Room 722
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305
Phone: 304-558-2885

http://www.transportation.wv.gov/highways/contractadmin/specifications/2010StandSpec/Pages/default.aspx

Herbicide furnished under this contract shall conform to the physical and chemical properties set out in the EPA Registration of the product provided by the Vendor.

2. BIDDING INSTRUCTIONS

Vendors may bid on any or all of the products listed on the Bid Schedule. Vendors may quote Product Name requested or provide "an equal to" product.

The vendor shall list the trade name and EPA Registration Number on the Bid Schedule for each product bid. Failure to list this information on the Bid Schedule will result in the disqualification of the vendor's bid on that product.

The vendor shall provide the label from the item being bid as "an equal to" the product requested to eliminate any confusion in determining equivalency to product item requested with their bid. The final determination of equivalency will be made by the Division of Highways.

Equivalency, chemical name or equivalent, shall mean equal and not necessarily identical. Prior to award of low bid the Division of Highways may require product samples for evaluation to determine equivalency. Product specifications and technical information should be submitted with bid and may also be used to determine equivalency.

The successful vendor shall furnish two product labels, for each product awarded, to the Division of

6. TESTING PROCEDURES

Upon award of contract, the successful vendor(s) shall supply the Division of Highways, Materials Control, Soil and Testing Division, 190 Dry Branch Road, Charleston, WV 25306, the proper testing procedures to determine the presence and concentration of the Herbicide in flowing water.

7. BID QUANTITIES

Vendors are cautioned that the quantities listed on the Bid Schedule are estimates only. Actual requests will be placed to the awarded vendor from the Division of Highways by an Agency Release at the time of need.

8. DELIVERY

Materials under this contract are to be shipped prepaid F.O.B. delivery to Division of Highways District Storerooms as follows:

District One	Charleston
District Two	Huntington
District Three	Parkersburg
District Four	Clarksburg
District Five	Burlington
District Six	Moundsville
District Seven	Weston
District Eight	Elkins
District Nine	Lewisburg
District Ten	Princeton

Materials should be shipped to the location and in the quantity specified in the Agency Release within 20 days after the Agency Release is issued by the Division of Highways.

9. VENDOR'S INVOICES

Vendor's invoices must be submitted in original and four copies and contain the following:

a. Division of Highways Agency Release Number and Contract Number.

b. Total quantity and unit price with the total cost of each type of item furnished.

Note: Under no circumstance will the Division of Highways accept, or pay for, quantities of material in excess of the quantity stated on the Agency Release.

10. RESTRICTED AND NON-RESTRICTED HERBICIDES

Herbicide products which have been declared RESTRICTED in their use by the Environmental Protection Agency (EPA) must be applied under the supervision of a licensed herbicide applicator. The Department reserves the right to disallow the use of RESTRICTED herbicides when non-restricted herbicides are available to achieve the same objective.

11. PURCHASING CARD ACCEPTANCE

The State of West Virginia currently utilizes a VISA Purchasing Card Program which is issued through a bank. The successful vendor(s) must accept the State of West Virginia VISA Purchasing Card for payment of all orders placed by any State agency as a condition of award.

12. MANDATORY PRE-BID

There will be a mandatory pre-bid meeting on Thursday, February 23, 2012 – this date coincides with the 2078 Vegetation/Herbicide Management Seminar.

Location: **Purchasing Division Conference Room**
2019 Washington Street, East, Building 15
Charleston, WV 25305

NOTE: Vendors should type Bid Schedules

The "Bid Schedule" is available for download on Purchasing's Web site at www.state.wv.us/admin/purchase

13 Herbicide Bid Schedule

6612C015

Item #	HERBICIDES Description	% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-1H	Water Soluble Emulsifiable Concentrate Containing: Ammonium Salt of Fosamine with Surfactant	4 lbs/gallon				
	Product Trade Name: Krenite S or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		3000	gallon	N/A	
	B) Supplied in 15 gallon returnable/refillable containers		3000	gallon	N/A	
DOH-2H	Water Soluble Emulsifiable Concentrate Containing: Isopropylamine Salt of Glyphosate Phosphate Ester Surfactant	50.20%	NO BID			
	Product Trade Name: Roundup Pro Concentrate or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 30 gallon plastic returnable drums.		6000	gallon		
	B) Supplied in 2.5 gallon containers in lots of 5 gallons		6000	gallon		
	C) Supplied in 15 gallon returnable/refillable containers		6000	gallon		
	D) Supplied in 250 gallon returnable/refillable shuttle.		6000	gallon		
DOH-3H	Dispersible Granules Containing: Sulfometuron Methyl	75%	NO BID			
	Product Trade Name: Oust XP or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 3 pound containers in lots of 24 pounds		100	pound		
	B) Supplied in 3 pound jug		100	pound		
DOH-4H	Water Soluble Aqueous Suspension Containing: Oryzalin	4 lbs/gallon				
	Product Trade Name: Oryzalin 4 Pro or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		250	gallon		
DOH-5H	Aqueous Solution Containing: Imazapyr	2 lbs/gallon				
	Product Trade Name: Arsenal Powerline or equal Alligare Imazapyr 2SL					
	EPA Registration Number: 81927-23					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		150	gallon	68.32	10252.50
	B) Supplied in 15 gallon drums		150	gallon		

13 **Herbicide Bid Schedule** 6612C015

Item #	HERBICIDES Description	% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-6H	Aqueous Carrier Containing: Pendimethalin	3.8 lbs/gallon				
	Product Trade Name: Pendulum AquaCap or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		600	gallon		
DOH-7H	Water Soluble Concentrate Containing: Triciopyr	3 lbs/gallon				
	Product Trade Name: Garlon 3A or equal Element 3A					
	EPA Registration Number: 62719-37					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		500	gallon	44.59	22295.00
	B) Supplied in 30 gallon containers		500	gallon	44.59	22295.00
	C) Supplied in 15 gallon continuum returnable/refillable containers in pallets of 9 containers.		500	gallon		
DOH-8H	Water Soluble Concentrate Containing: Triciopyr	4 lbs/gallon				
	Product Trade Name: Garlon 4 Ultra or equal Element 4					
	EPA Registration Number: 62719-40					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		250	gallon	50.00	12500.00
	B) Supplied in 30 gallon containers		250	gallon	50.00	12500.00
	C) Supplied in 15 gallon continuum returnable/refillable containers in pallets of 9 containers.		250	gallon		
DOH-9H	A Water Soluble Dispersible Granule Containing: Diuron	80.00%				
	Product Trade Name: Karmex XP or equal Alligare Diuron 80DF					
	EPA Registration Number: 66222-51-74477					
	A) Supplied in 5 pound bags in lots of 10 bags		2000	pound	4.14	8280.00
	B) Supplied in 25 pound bags		2000	pound	4.14	8280.00
DOH-10H	Water Soluble Liquid Containing: Dimethylamine Salt of 2, 4-D acid	3.8 llbs/gallon				
	Product Trade Name: DM A4 or equal DMA4					
	EPA Registration Number: 62719-3					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		100	gallon	14.72	1472.00
	B) Supplied in 30 gallon containers		100	gallon	14.32	1432.00
	C) Supplied in 15 gallon returnable/refillable containers in pallets of 9 containers.		100	gallon	N/A	N/A

Herbicide Bid Schedule

6612C015

Item #	HERBICIDES Description	% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-11H	Water Soluble Liquid Containing: Ammonium Salt of Imazapic	23.60%				
	Product Trade Name: Plateau or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 1 gallon containers in lots of 2 gallons		50	gallon		
	B) Supplied in 1.44 ounce packets in lots of 14 packets		4444	packet		
	C) Supplied in 1 quart containers in lots of 4 quarts		200	quart		
	D) Supplied in 15 gallon containers		4	containers		
DOH-12H	A Dispersible Liquid Containing: Hexazinone	2 lbs/gallon				
	Product Trade Name: Velpar L or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		50	gallon		
DOH-13H	Dry Flowable Containing: Metsulfuron Methyl	60%				
	Product Trade Name: Escort XP or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 16 ounce containers in lots of 8 pounds (8-16 oz ctrs)		2400	ounce		
	B) Supplied in 16 ounce jugs		2400	ounce		
	C) Supplied in 64 ounce jug returnable/refillable		2400	ounce		
DOH-14H	Water Soluble Granule Herbicide Containing: Ammonium Salt of Glyphosate	71.40%				
	Product Trade Name: Roundup Pro Dry or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 23.25 pound box		25	box		
DOH-15H	Dry Flowable Containing: Chlorsulfuron	75%				
	Product Trade Name: Telar XP or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 8 x 16 ounce containter to a case		160	ounce		

Item #	HERBICIDES Description	% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-16H	A Liquid Solution Containing: Isooctyl ester of 2.4 Dichlorophenoxyacetic Acid 2-ethylhrxyl ester of +R-2-(2,4-Dichlorophenoxy Propionic Acid Dicamba (3, 6-Dicholoro-o-anisic Acid)	32.48% 15.90% 5.38%				
	Product Trade Name: BK-800 or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		100	gallon		
	B) Supplied in 30 gallon drums		100	gallon		
DOH-17H	Dry Flowable Containing: Tebuthiuron	80%				
	Product Trade Name: Spike 80 DF or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 4 pound bags in lots of 24 pounds		50	pound		
	B) Supplied in 25 pound bags		50	pound		
DOH-18H	A Water Soluble Emulsfiable Concentrate Containing: Clopyralid	3 lbs/gallon				
	Product Trade Name: Transline or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		25	gallon		
	B) Supplied in .5 gallon containers in lots of 2 gallons		25	gallon		
DOH-19H	Aqueous Solution Containing: Isopropylamine Salt of Imazapyr	27.60%				
	Product Trade Name: Stalker or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 1 quart containers in lots of 4 quarts		200	quart		
DOH-20H	Aqueous Solution Containing: Diglycolamine Salt of 3, 6-Dichloro-0-Anisic Acid	4 lbs/gallon				
	Product Trade Name: Vanquish or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		300	gallon		
	B) Supplied in 15 gallon returnable/refillable containers in pallets of 9 containers.		300	gallon		

13 **Herbicide Bid Schedule** **6612C015**

Item #	HERBICIDES Description	% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-21H	Aqueous Solution Containing: Triciopyr	.75 lbs/gallon				
	Product Trade Name: Pathfinder II or equal _____					
	EPA Registration Number: 62719-176					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		300	gallon	41.20	12360.00
DOH-22H	A Water Soluble Emulsfiable Concentrate Containing: Isopropylamine Salt of Glyphosate	53.80%				
	Product Trade Name: Rodeo or equal _____					
	EPA Registration Number: 62719-324					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		100	gallon	15.80	1580.00
	B) Supplied in 30 gallon plastic returnable drums		100	gallon	15.40	1540.00
DOH-23H	A Liquid Containing: Aminopyralid	40.60%				
	Product Trade Name: Milestone VM or equal _____					
	EPA Registration Number: 62719-537					
	A) Supplied in 1 quart containers, 12 containers per lot		200	quarts	296.00	59200.00
	B) Supplied in 2.5 gallon containers in lots of 5 gallons		50	gallon	291.00	14550.00
DOH-24H	Water Dispersible Granular Material Containing: Prodiamine	65%				
	Product Trade Name: Endurance or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 10 pound containers, 50 pounds per lot		100	pound		
DOH-25H	Emulsifiable Concentrate Containing: Quizalofop P-Ethyl	.88 lbs/gallon				
	Product Trade Name: Assure II or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 1 gallon containers in lots of 4 gallons		16	gallon		
DOH-26H	Emulsifiable Concentrate Containing: Fluazifop-P-butyl	6.75%				
	Product Trade Name: Ornamec or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 1 gallon containers in lots of 4 gallons		16	gallon		

Item #	HERBICIDES Description	% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-27H	A Dispersible Granule Containing: Imazapyr Diuron	 7.78% 62.22%				
	Product Trade Name: Sahara DG or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 10 pound bags in lots of 40 pounds		50	pound		
DOH-28H	A Water Soluble Dry Granule Containing: Sulfosulfuron	75%				
	Product Trade Name: Outrider or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 20 ounce bottles in lots of 200 ounce		400	ounce		
DOH-29H	A Liquid Containing: Diuron	40%				
	Product Trade Name: Direx 4L or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		50	gallon		
DOH-30H	A Liquid Containing: Fluroxypyr	26.20%				
	Product Trade Name: Fluroxypyr or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		100	gallon		
DOH-31H	A Liquid Containing: Fluroxypyr	45.52%				
	Product Trade Name: Vista XRT or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		100	gallon		
DOH-32H	Wettable Granule Formulation Containing: Sodium Salt of Diflufenzopy: 2-[1-({3.5-Difluorophenylamino} Carbony}] Hydrazono} Ethyl)-3-Pyridinecarboxylic Acid, Sodium Sodium Salt of 3.6-Dicholoro-o-anisic Acid	 21.40% 55.00%				
	Product Trade Name: Overdrive or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 7.5 pound jugs, 30 pounds per case		100	pound		

HERBICIDES		% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
Item #	Description					
DOH-33H	Dispersible Granules Containing: Sulfometuron Methyl Chlorsulfuron	 56.25% 18.75%				
	Product Trade Name: Landmark XP or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 4 pound jugs in lots of 32 pounds		100	pound		
	B) Supplied in 64 ounce jug, returnable/refillable		1600	ounce		
DOH-34H	Dispersible Granules Containing: Sulfometuron Methyl Metsulfuron Methyl	 56.25% 15.00%				
	Product Trade Name: Oust Extra or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 4 pound jugs in lots of 32 pounds		400	pound		
	B) Supplied in 64 ounce jug, returnable/refillable		6400	ounce		
	C) Supplied in 12 pound jugs		400	pound		
DOH-35H	A Dry Flowable Granule Containing: Bromacil Diuron	 40% 40%				
	Product Trade Name: Krovar I DF or equal Alligare Bromacil 40/40					
	EPA Registration Number: 81927-3					
	A) Supplied in 6 pound containers in lots of 8 containers		50	pound	8.70	435.00
DOH-36H	A Liquid Containing: Imazapic Glyphosate	 8.13% 21.94%				
	Product Trade Name: Journey or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		100	gallon		

Item #	HERBICIDES Description	% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-37H	A Liquid Containing: Dimethylamine Salt of 2,4-Dichlovophenoxyacetic Acid Dimethylamine Salt of Dicamba (3,6-Dichloro-o-Anisic Acid)	 24.58% 12.82%				
	Product Trade Name: Veteran 720 or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		100	gallon		
	B) Supplied in 30 gallon drums		100	gallon		
DOH-38H	Dispersible Granules Containing: Chlorsulfuron Sulfometuron Methyl Sulfentrazone	 9% 18% 48%				
	Product Trade Name: Throttle XP or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 3.9 pound containers, 8 containers per case		100	pound		
DOH-39H	Water Soluble Dispersible Extruded Paste Granule Containing: Aminocyclopyrachlor	 39.50%				
	Chlorsulfuron	15.80%				
	Product Trade Name: Perspective™ or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 20 ounce containers in lots of 240 ounces		240	ounces		
	B) Supplied in 20 ounce jug		40	ounces		
	C) Supplied in 5 pound containers in lots of 40 pounds		80	pounds		
	D) Supplied in 5 pound jug		20	pounds		
DOH-40H	Water Soluble Dispersible Extruded Paste Granule Containing: Aminocyclopyrachlor	 39.50%				
	Metsulfuron methyl	12.60%				
	Product Trade Name: Streamline™ or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 3 pound containers in lots of 24 pounds		96	pounds		
	B) Supplied in 3 pound jug		96	pounds		

13 **Herbicide Bid Schedule** **6612C015**

HERBICIDES		% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
Item #	Description					
DOH-41H	Water Soluble Dispersible Extruded Paste Granule Containing:					
	Imazapry	31.60%				
	Aminocyclopyrachlor	22.80%				
	Metsulfuron methyl	7.30%				
	Product Trade Name: Viewpoint™ or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 5 pound containers in lots of 40 pounds		100	pounds		
	B) Supplied in 5 pound jug		100	pounds		

TOTAL $_____

ADJUVANTS Item #	Description	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-1A	A Water Soluble Blue Liquid Spray Pattern Indicator				
	Product Trade Name: Bullseye or equal _____				
	A) Supplied in 2.5 gallon containers in lots of 5 gallons.	100	gallon		
DOH-2A	A Miscible-Dispersible Liquid Defoamer (30% Active Ingredient)				
	Product Trade Name: _____				
	A) Supplied in _____ containers in lots of _____.	100	gallon		
DOH-3A	A Diluent with Emulsifiers				
	Product Trade Name: Hygrade EC or Arborchem Basal Oil or Bark Oil EC or				
	Alenza Basal Oil or Penevator or equal _____				
	A) Supplied in _____ containers in lots of _____.	100	gallon		
DOH-4A	Non-Ionic Surfactant (90% Active Ingredient)				
	Product Trade Name: _____				
	A) Supplied in _____ containers in lots of _____.	100	gallon		
DOH-5A	A Granular/Flake Drift Control Agent				
	Product Trade Name: _____				
	A) Supplied in _____ containers in lots of _____.	100	pound		
DOH-6A	A Liquid Drift Control Agent				
	Product Trade Name: _____				
	A) Supplied in _____ containers in lots of _____.	100	gallon		
DOH-7A	Aquatic Surfactant				
	Product Trade Name: _____				
	A) Supplied in _____ containers in lots of _____.	100	gallon		
DOH-8A	A Water Soluble Liquid Spray Pattern Indicator				
	Product Trade Name: Blueprint Plus or equal _____				
	A) Supplied in 2.5 gallon containers in lots of 5 gallons.	100	gallon		
DOH-9A	A Non-Ionic Sticker Spreader				
	Product Trade Name: Nu-Film-IR or equal _____				
	A) Supplied in 2.5 gallon containers in lots of _____.	100	gallon		
DOH-10A	A Ready-to-Use Formula Containing Paraffinic Oil Emulsifiers				
	Product Trade Name: Thinvert RTU or equal _____				
	A) Supplied in 2.5 gallon containers in lots of 5 gallons per case.	100	gallon		
	B) Supplied in 15 gallon drum.	100	gallon		

13 **Herbicide Bid Schedule** 6612C015

ADJUVANTS					
Item #	Description	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-11A	A Concentrate Formula Containing Paraffinic Oil Emulsifiers and Surfactants				
	Product Trade Name: Thinvert RTU or equal _____				
	A) Supplied in 2.5 gallon containers in lots of 5 gallons per case.	100	gallon		
	B) Supplied in 15 gallon drum.	100	gallon		

SAFETY EQUIPMENT					
Item #	Description	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-1S	Emergency Spill Kit Containing:				
	15 Universal Plus Sorbent Pads				
	3 Cobra Coils				
	1 Pair Safety Goggles				
	1 Pair Latex Gloves				
	1 Large Refuse Bag				
	1 List of Environmental Compliance Telephone Numbers				
	Size: 18"x18"x4" Vacuum				
	Packed in Puncture Resistant Foil				
	Product Trade Name: _____				
	A) Supplied by the kit.	1	each		
DOH-2S	A Granular/Flake Spill Absorbent				
	Product Trade Name: _____				
	A) Supplied in _____ containers in lots of _____.	1	pound		
DOH-3S	32 ounce Eye Wash Bottle				
	Product Trade Name: _____				
	A) Supplied per each.	1	each		

MISCELLANEOUS					
Item #	Description	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-1M	Pressure Rinser				
	Product Trade Name: Easy Rinse or equal _____				
	A) Supplied per each.	1	each		
DOH-2M	Hand Soap with Citrus Oil				
	Product Trade Name: Zep or equal _____				
	A) Supplied in 32 ounce containers in lots of 20 containers per case	1	container		
DOH-3M	A Biostimulant Containing				
	Soluble Potash 1.00%				
	Iron 0.36%				
	Manure Extract 79.30%				
	Humic and Fulvic Acid Extract 9.00%				
	Kelp Extract 1.20%				
	Organo-Modified Silaxane Surfactant 0.36%				
	Product Trade Name: Launch or equal _____				
	A) Supplied in 2.5 gallon containers in lots of 5 gallons	2.5	gallon		
DOH-4M	Nitri-Solve 100% - 15 mil 13" Nitrile Gloves - Compliance EPA 40 CFR 170				
	A) Supplied size Small.	1	pair		
	B) Supplied size Medium.	1	pair		
	C) Supplied size Large.	1	pair		
	D) Supplied size X-Large.	1	pair		
	E) Supplied size XX-Large.	1	pair		
DOH-5M	A 5-gallon Backpack Sprayer				
	Product Trade Name: Birchmeier or equal _____				
	A) Supplied per sprayer	1	each		
	B) Gasket Set for Sprayer Pump	1	set		
	C) Hose Valve and Wand Repair Kit	1	kit		
DOH-6M	2-Quart Handheld Pressure Sprayer				
	Product Trade Name: Tolco or equal _____				
	A) Supplied per sprayer	1	each		

13 Herbicide Bid Schedule 6612C015

MISCELLANEOUS					
Item #	Description	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
DOH-7M	Closed System Backpack Sprayer				
	Product Trade Name: Birchmeier BCS or equal _____				
	A) Supplied per sprayer	1	each		
	B) Gasket Set for Sprayer Pump	1	set		
	C) Hose Valve and Wand Repair Kit	1	kit		

TOTAL $_____

GRAND TOTAL $_____

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
6612C015	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ALAN CUMMINGS
304-558-2402

VENDOR
MICHAEL JENNINGS
NOVCO INC
P O BOX 21757
COLUMBUS OH 43221

RECEIVED MAR 05 2012

SHIP TO
DIVISION OF HIGHWAYS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
02/28/2012				

BID OPENING DATE: 03/14/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				ADDENDUM NO.02		
				ISSUED TO ADD ITEM #DOH-24(B) TO THE BID SCHEDULE AND TO ADVISE BIDDERS OF THE DIVISION OF HIGHWAYS' INTENTION WITH THE NEW CONTRACTS, 6612C015 VERSUS THE CURRENT CONTRACTS, 6611C023.		
				BID OPENING DATE AND TIME REMAIN UNCHANGED AS: 3/14/2012 AT 1:30 P.M.		
0001	1	EA		675-85		
				HERBICIDES, ADJUVANTS, AND OTHER ITEMS		
				****** THIS IS THE END OF RFQ 6612C015 ****** TOTAL:		

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE (614)486-8994 DATE 03/01/2012

TITLE Area Manager FEIN 31-4444304 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

13 **Herbicide Bid Schedule** **ADDENDUM #2 6612C015**

HERBICIDES		% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
Item #	Description					
DOH-24H	Water Dispersible Granular Material Containing: Prodiamine	65%				
	Product Trade Name: Endurance or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 10 pound containers, 50 pounds per lot		100	pound		
	B) Supplied in 5 pound containers, 50 pounds per lot		**100**	**pound**		

In addition to adding Item DOH-24H(**b**), this addendum is to make bidders aware of the following:

1 Upon award of the new Herbicide contracts 6612C015, there will be no new Agency Releases issued toward current Herbicide contracts 6611C023.

2 All Agency Releases toward current Herbicide contracts 6611C023, issued and outstanding prior to the new award date of Herbicide contracts 6612C015, will be honored.

3 To allow completion of outstanding Agency Releases, current Herbicide contracts 6611C023 will not be cancelled, but will expire at their original expiration date of June 30, 2012.

These guidelines should allow a clean separation of the contracts and a transition to a single contract next year. The intent is to simplify administrative processes for all parties.

Bid opening date will remain the same, March 14, 2012.

PRE-BID CONFERENCE

SIGN IN SHEET

Request for Quotation Number: **6612C015** Date: **2/23/2012 11:00**

Project Description: **Herbicides**

PLEASE PRINT LEGIBLY. THIS INFORMATION IS ESSENTIAL TO CONTACT THE ATTENDEES IN A TIMELY MANNER. FAILURE TO DO SO MAY RESULT IN DELAYS IN YOUR COMPANY GETTING IMPORTANT BID INFORMATION.

Firm Name:	John Deere Landscapes
Firm Address:	attn: Bid Department.
	1385 East 36th Street
	Cleveland, Ohio 44114
Represenative Attending:	Matthew Marshall
Phone Number:	614-419-6141
Fax Number:	614-863-4028
Email Address:	mmarshall@johndeerelandscapes.com

Firm Name:	NOVLCO Inc.
Firm Address:	PO Box 21757
	Columbus OH 43221
Represenative Attending:	Michael Jennings
Phone Number:	614 486-8994
Fax Number:	614 486-7531
Email Address:	mikejennings@novcoinc.com

Firm Name:	WVDOH
Firm Address:	
Represenative Attending:	EUGENE TUCKWILLER
Phone Number:	304-487-5233
Fax Number:	
Email Address:	EUGENE.R.TUCKWILLER@WV.GOV

Firm Name:	CWC CHEMICAL INC.
Firm Address:	214 Simmons Dr.
	CLOVERDALE, VA 24077
Represenative Attending:	BOBBIE TURNER
Phone Number:	800.380.9903
Fax Number:	540.992.5601
Email Address:	BTURNER@CWC-CHEMICAL.COM

Firm Name:	Summit Helicopters INC (C3m)
Firm Address:	P.O. Box 39
	Clarendale Va. 24077
Represenative Attending:	Barry W. Clinevell
Phone Number:	540-992-5500
Fax Number:	540-992-5503
Email Address:	summitsales@rbnet.com

Firm Name:	Crop Production Services, Inc
Firm Address:	1850 Touchstone Road
	Colonial Heights, VA 23834
Represenative Attending:	Charlie Smyth
Phone Number:	804 520-0789 m 804 513-7185
Fax Number:	804 520-0089
Email Address:	Charles.Smyth@cpsag4.com

PRE-BID CONFERENCE

SIGN IN SHEET

Request for Quotation Number: **6612C015** Date: **2/23/2012 11:00**

Project Description: **Herbicides**

PLEASE PRINT LEGIBLY. THIS INFORMATION IS ESSENTIAL TO CONTACT THE ATTENDEES IN A TIMELY MANNER. FAILURE TO DO SO MAY RESULT IN DELAYS IN YOUR COMPANY GETTING IMPORTANT BID INFORMATION.

Firm Name:	Arborchem Products
Firm Address:	943 Wixon Dr Mechanicsburg, PA 17055
Represenative Attending:	Joe Lentz
Phone Number:	215 760 9420
Fax Number:	717 766 6661
Email Address:	jolentz@arborchem.com

Firm Name:	
Firm Address:	
Represenative Attending:	
Phone Number:	
Fax Number:	
Email Address:	

Firm Name:	DOH
Firm Address:	1900 Kanawha Blvd, E Bldg 5, A350 Charleston WV 25305
Represenative Attending:	Syble Atkins
Phone Number:	304-558-9495
Fax Number:	304-558-2915
Email Address:	Syble.a.atkins@wv.gov

Firm Name:	
Firm Address:	
Represenative Attending:	
Phone Number:	
Fax Number:	
Email Address:	

Firm Name:	
Firm Address:	
Represenative Attending:	
Phone Number:	
Fax Number:	
Email Address:	

Firm Name:	
Firm Address:	
Represenative Attending:	
Phone Number:	
Fax Number:	
Email Address:	

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
6612C015	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ALAN CUMMINGS
304-558-2402

VENDOR
*709022308 614-486-8994
NOXIOUS VEGETATION CONTROL INC
PO BOX 21757

COLUMBUS OH 43221-0757

SHIP TO
DIVISION OF HIGHWAYS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
02/05/2012				

BID OPENING DATE: 03/14/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				ADDENDUM NO.01		
	ADD ITEM # DOH-24H TO THE BID SCHEDULE.					
	BID OPENING DATE AND TIME REMAIN UNCHANGED AS: 3/14/2012 AT 1:30 P.M.					
0001	1	EA		675-85		
	HERBICIDES, ADJUVANTS, AND OTHER ITEMS					
	****** THIS IS THE END OF RFQ 6612C015 ******				TOTAL:	

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE (614) 486-8994 DATE 03/09/2012

TITLE Area Manager FEIN 31-4444304 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

13 Herbicide Bid Schedule ADDENDUM #1 6612C015

HERBICIDES		% Concentration/ Pounds per Gallon of Active Ingredients	Estimated Quantity	Unit of Measure	Cost Per Unit of Measure	Extended Cost
Item #	Description					
DOH-42H	A Liquid Containing: Indaziflam	19.05%				
		(1.67 pounds per gal)				
	Product Trade Name: ESPLANADE 200SC or equal _____					
	EPA Registration Number: _____					
	A) Supplied in 2.5 gallon containers in lots of 5 gallons		50	gallons		
	B) Supplied in 1 quart containers in lots of 1 gallon		50	gallons		

Rev. 09/08

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with ***West Virginia Code***, §5A-3-37. (Does not apply to construction contracts). ***West Virginia Code***, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the ***West Virginia Code***. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. **Application is made for 2.5% resident vendor preference for the reason checked:**
   ____ Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**
   ____ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**
   ____ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or,**

2. **Application is made for 2.5% resident vendor preference for the reason checked:**
   ____ Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

3. **Application is made for 2.5% resident vendor preference for the reason checked:**
   ____ Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

4. **Application is made for 5% resident vendor preference for the reason checked:**
   ____ Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or,**

5. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
   ____ Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or,**

6. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
   ____ Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: NOVCO INC. **Signed:** [signature]

Date: 03/09/2012 **Title:** Area Manager

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

RFQ No. 6612C015

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:
"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (***West Virginia Code*** §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: Noxious Vegetation Control Inc

Authorized Signature: [signature] Date: 03/09/2012

State of Ohio

County of Franklin, to-wit:

Taken, subscribed, and sworn to before me this 9th day of March, 2012.

My Commission expires 03/21, 2012.

AFFIX SEAL HERE

NOTARY PUBLIC Josephine Speroni

Please use this document for technical questions, posing in a question format

Please refer to the section your question is in reference to.

Technical questions for RFQ# _____

Vendor Name:_____

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

ALLIGARE

IMAZAPYR 2 SL

SPECIMEN LABEL

Alligare Imazapyr 2 SL controls undesirable vegetation in non-cropland areas such as railroad, utility, pipeline and highway rights-of-way, utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, non-irrigation ditchbanks and under paved surfaces. **Alligare Imazapyr 2 SL** may also be used in grass pastures and rangeland, and for establishing and maintaining wildlife openings, except in the state of California.

ACTIVE INGREDIENT:

Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-3-pyridinecarboxylic acid)*	27.8%
OTHER INGREDIENTS:	72.2%
TOTAL:	100.0%

*Equivalent to 22.6% 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-3-pyridinecarboxylic acid or 2 pounds acid equivalent per gallon.

Letter(s) in lot number correspond(s) to superscript in EPA Est. No.

EPA Reg. No. 81927-23

(ALB) EPA Est. No. 42750-MO-001
(BT) EPA Est. No. 37429-GA-001
(CSI) EPA Est. No. 53883-TX-002
(A) EPA Est. No. 11603-ISR-001

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCION

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • **DO NOT** induce vomiting unless told to do so by the poison control center or doctor. • **DO NOT** give anything by mouth to an unconscious person.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergencies involving this product, call 1-800-424-9300.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION! Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE):
Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistant category selection chart.

Applicators and other handlers must wear:
- Long-sleeve shirt and long pants.
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:
Users Should:
- Wash hands before eating, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of **Alligare Imazapyr 2 SL** should be mixed, stored and applied only in stainless steel, fiberglass, plastic and plastic-lined steel containers.

DO NOT mix, store or apply **Alligare Imazapyr 2 SL** or spray solutions of **Alligare Imazapyr 2 SL** in unlined steel (except stainless steel) containers or spray tanks.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Alligare Imazapyr 2 SL should be used only in accordance with recommendations on the label attached to the container. Keep containers closed to avoid spills and contamination.

GENERAL INFORMATION

Alligare Imazapyr 2 SL is an aqueous solution intended to be mixed with water and surfactant(s) for application to non-cropland areas such as railroad, utility, pipeline and highway rights-of-way, utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, non-irrigation ditchbanks, including grazed or hayed areas within these sites. **Alligare Imazapyr 2 SL** is also recommended for the release of unimproved Bermudagrass and Bahiagrass. It may also be used beneath certain paved surfaces. Additionally, **Alligare Imazapyr 2 SL** may be used on grass pastures and rangeland, as well as for establishing and maintaining wildlife openings.

When applied either preemergence or postemeregence to weeds, **Alligare Imazapyr 2 SL** will control most annual and perennial grasses and broadleaf weeds in addition to many brush and vine species. **Alligare Imazapyr 2 SL** will provide residual control of labeled weeds which germinate in the treated areas. Postemergence application with a surfactant is the method of choice in most situations, particularly for perennial weeds. For maximum affect, weeds should be growing vigorously at postemergence application and the spray solution should include a surfactant (See **ADJUVANT** Section for recommendations). **Alligare Imazapyr 2 SL** solutions may be broadcast by using ground or aerial equipment, or may be applied as a spot treatment by using low-volume techniques. In addition, **Alligare Imazapyr 2 SL** may be used for stump and cut stem treatments.

Alligare Imazapyr 2 SL controls vegetation by absorbtion through leaves, stems, and roots, from which it is translocated throughout the plant, where it accumulates in rapidly-growing meristematic tissue. Treated plants stop growing soon after treatment. Chlorosis (yellowing of plant tissue) first appears in the newest leaves and necrosis spreads from this point. In perennials, **Alligare Imazapyr 2 SL** is translocated into and kills underground storage tissues to prevent regrowth. Chlorosis and tissue necrosis may not be apparent in some plant species until two weeks after application. Complete kill of plants may not occur for several weeks. Applications of **Alligare Imazapyr 2 SL** are rain-fast one hour after treatment.

When applying **Alligare Imazapyr 2 SL** as a tank mix, follow the more restrictive directions and restrictions on the labels for all products used. Do not tank mix **Alligare Imazapyr 2 SL** with any product that prohibits such mixing.

PRECAUTIONS FOR AVOIDING INJURY TO NON-TARGET PLANTS

Alligare Imazapyr 2 SL can occasionally affect non-target or untreated plants by root uptake of the herbicide. Injury or loss of non-target plants may result if **Alligare Imazapyr 2 SL** is applied onto or near desirable plants, or to areas where their roots extend, or in areas where treated soil may be washed or moved within their drip line.

IMPORTANT

DO NOT use on food crops. **DO NOT** treat irrigation ditches or water used for irrigation of crops or for domestic purposes. Keep away from fertilizers, insecticides, fungicides and seeds. **DO NOT** drain or flush equipment on or near desirable plants, or onto areas where their roots may extend, or in locations where the chemical may be washed or moved within their drip line. **DO NOT** use on lawns, walks, driveways, tennis courts or similar areas where roots of desirable vegetation may extend and be exposed to potential injury and/or mortality from root uptake of **Alligare Imazapyr 2 SL**. **DO NOT** side trim desirable vegetation with this product unless severe injury or plant death is acceptable. Exercise precautions to prevent spray drift onto desirable plants.

Clean application equipment immediately after using this product by thoroughly flushing with water.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of **48 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
- Coveralls
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Non-crop weed control is not within the scope of the Worker Protection Standard. See the **GENERAL INFORMATION** section of this label for a description of non-crop sites.

DO NOT enter treated areas without protective clothing until sprays have dried.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Spray drift from applying this product may damage sensitive plants adjacent to the treatment area. Only apply this product when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or non-target crops) is minimal. **DO NOT** apply when the following conditions exist that increase the likelihood of spray drift from intended targets: high or gusty winds, high temperatures, low humidity, temperature inversions.

The best drift management strategy and most effective way to reduce drift potential are to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (**see WIND, TEMPERATURE AND HUMIDITY AND TEMPERATURE INVERSIONS**).

Controlling Droplet Size:

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – **DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles – use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift. **DO NOT** use nozzles producing a mist droplet spray.

Application Height: Making applications at the lowest possible height (aircraft, ground driven spray boom) that is safe and practical reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. aircraft, ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.)

Wind: Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud, which can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Wind Erosion: Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

Aerial Application Methods and Equipment: Use 2 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

Managing Spray Drift from Aerial Applications: Applicators must follow these requirements to avoid off-target drift movement: 1) boom length – the distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor, 2) nozzle orientation – nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees, and 3) application height – without compromising aircraft safety, applications should be made at a height of 10 feet or less above the crop canopy or tallest plants. Applicators must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

Ground Application (Broadcast): Use 5 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

WEEDS CONTROLLED BY ALLIGARE IMAZAPYR 2 SL

When used as directed, **Alligare Imazapyr 2 SL** provides preemergence or postemergence control with residual control of the weed species listed below. Annual weeds may be controlled by preemergence or postemergence applications of **Alligare Imazapyr 2 SL.** For established biennial and perennial vegetation control, postemergence treatments of **Alligare Imazapyr 2 SL** are recommended. The tables below show broadcast rates and indicate relative weed sensitivity. It is important to consider relative weed sensitivity when preparing low volume spray solutions (See **LOW VOLUME** section of **GROUND APPLICATIONS**), since low volume treatments apply less **Alligare Imazapyr 2 SL** per acre than is shown for the broadcast treatments.

Resistant Biotypes: Some weeds listed below may have naturally-occurring biotypes (plants within a given species that have a slightly different but distinct genetic makeup from other plants of that species) that are not effectively controlled by this and/or other herbicides (Oust[4]) with the ALS/AHAS enzyme-inhibiting mode of action. If naturally-occurring ALS/AHAS-resistant biotypes are present in an area, **Alligare Imazapyr 2 SL** should be tank-mixed or applied sequentially with a registered herbicide that depends on a different mode of action to ensure control.

GRASSES

Apply 2-3 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Annual bluegrass	*(Poa annua)*	A
Broadleaf signalgrass	*(Brachiaria platyphylla)*	A
Canada bluegrass	*(Poa compressa)*	P
Downy brome	*(Bromus tectorum)*	A
Fescue	*(Festuca* spp.*)*	A/P
Foxtail	*(Setaria* spp.*)*	A
Italian ryegrass	*(Lolium multiflorum)*	A
Johnsongrass	*(Sorghum halepense)*	P
Kentucky bluegrass	*(Poa pratensis)*	P
Lovegrass	*(Eragrostis spp.)*	A/P
Orchardgrass	*(Dactylis glomerata)*	P
Paragrass	*(Brachiaria mutica)*	P
Quackgrass	*(Agropyron repens)*	P
Sandbur	*(Cenchrus* spp.*)*	A
Sand dropseed	*(Sporobulus cryptandrus)*	P
Smooth brome	*(Bromus inermis)*	P
Vaseygrass	*(Paspalum urvillei)*	P
Wild oats	*(Avena fatua)*	A
Witchgrass	*(Panicum capillare)*	A

Apply 3-4 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Barnyardgrass[3]	*(Echinochloa crus-gali)*	A
Beardgrass	*(Andropogon* spp.*)*	P
Bluegrass, Annual[3]	*(Poa annua)*	A
Cheat	*(Bromus secalinus)*	A
Crabgrass	*(Digitaria* spp.*)*	A
Crowfootgrass[3]	*(Dactyloctenium aegyptium)*	A
Fall panicum	*(Panicum dichotomiflorum)*	A
Giant Reed	*(Arundo donax)*	A
Goosegrass	*(Eleusine indica)*	A
Itchgrass[3]	*(Rottboellia exaltata)*	A
Junglerice[3]	*(Echinochloa colonum)*	A
Lovegrass[3]	*(Eragrostis* spp.*)*	A
Maidencane	*(Panicum hemitomon)*	A
Panicum, Browntop[3]	*(Panicum fasciculatum)*	A
Panicum, Texas[3]	*(Panicum texanum)*	A
Prairie threeawn	*(Aristida oligantha)*	P
Reed canarygrass	*(Phalaris arundinacea)*	P
Sandbur, Field[3]	*(Cenchrus incertus)*	A
Signalgrass[3]	*(Brachiaria* spp.*)*	A
Torpedograss	*(Panicum repens)*	P
Wild barley	*(Hordeum* spp.*)*	A
Wooly Cupgrass[3]	*(Erichloa villosa)*	A

Apply 4-6 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Bahiagrass	*(Paspalum notatum)*	P
Bermudagrass[4]	*(Cynodon dactylon)*	P
Big bluestem	*(Andropogon gerardii)*	P
Cattail	*(Typha* spp.*)*	P
Cogongrass	*(Imperata cylindrica)*	P
Dallisgrass	*(Paspalum dilatatum)*	P
Feathertop	*(Pennisetum villosum)*	P
Guineagrass	*(Panicum maximum)*	P
Phragmites	*(Phragmites australis)*	P
Prairie cordgrass	*(Spartina pectinata)*	P
Saltgrass[4]	*(Distichlis stricta)*	P
Sand dropseed	*(Sporobolus cryptandrus)*	P
Sprangletop[3]	*(Leptochloa* spp.*)*	A
Timothy	*(Phleum pratense)*	P
Wirestem muhly	*(Muhlenbergia frondosa)*	P

Specimen Label

BROADLEAF WEEDS

Apply 2-3 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Alligatorweed	*(Alternanthera philoxeroides)*	A/P
Burdock	*(Arctium spp.)*	B
Carpetweed	*(Mollugo verticillata)*	A
Carolina geranium	*(Geranium carolinianum)*	A
Clover	*(Trifolium spp.)*	A/P
Common chickweed	*(Stellaria media)*	A
Common ragweed	*(Ambrosia artemisiifolia)*	A
Dandelion	*(Taraxacum officinale)*	P
Dogfennel	*(Eupatorium capillifolium)*	A
Filaree	*(Erodium spp.)*	A
Fleabane	*(Erigeron spp.)*	A
Hoary vervain	*(Verbena stricta)*	P
Horseweed	*(Conyza canadensis)*	A
Indian mustard	*(Brassica juncea)*	A
Kochia[4]	*(Kochia scoparia)*	A
Lambsquarters	*(Chenopodium album)*	A
Lespedeza	*(Lespedeza spp.)*	P
Miners lettuce	*(Montia perfoliata)*	A
Mullein	*(Verbascum spp.)*	B
Nettleleaf goosefoot	*(Chenopodium murale)*	A
Oxeye daisy	*(Chrysanthemum leucanthemum)*	P
Pepperweed	*(Lepidium spp.)*	A
Pigweed	*(Amaranthus spp.)*	A
Plantain	*(Plantago spp.)*	P
Puncturevine	*(Tribulus terrestris)*	A
Russian thistle	*(Salsola kali)*	A
Smartweed	*(Polygonum spp.)*	A/P
Sorrell	*(Rumex spp.)*	P
Sunflower	*(Helianthus spp.)*	A
Sweet clover	*(Melilotus spp.)*	A/B
Tansymustard	*(Descurainia pinnata)*	A
Western ragweed	*(Ambrosia psilostachya)*	P
Wild carrot	*(Daucus carota)*	B
Wild lettuce	*(Lactuca spp.)*	A/B
Wild parsnip	*(Pastinaca sativa)*	B
Wild turnip	*(Brassica campestris)*	B
Woollyleaf bursage	*(Franseria tomentosa)*	P
Yellow woodsorrel	*(Oxalis stricta)*	P

Apply 3-4 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Broom snakeweed[3]	*(Gutierrezia sarothrae)*	P
Bull thistle	*(Cirsium vulgare)*	B
Burclover[3]	*(Medicago spp.)*	A
Chickweed, Mouseear[5]	*(Cerastium vulgatum)*	A
Clover, Hop[3]	*(Trifolium procumbens)*	A
Cocklebur	*(Xanthium strumarium)*	A
Cudweed[3]	*(Gnaphalium spp.)*	A
Desert Camelthorn	*(Alhagi pseudalhagi)*	P
Diffuse knapweed	*(Centaurea diffusa)*	A
Dock	*(Rumex spp.)*	P
Fiddleneck[3]	*(Amsinckia intermedia)*	A
Goldenrod	*(Solidago spp.)*	P
Henbit[3]	*(Lamium aplexicaule)*	A
Knotweed, prostrate[3]	*(Polygonum aviculare)*	A/P
Pokeweed	*(Phytolacca americana)*	P
Purple loosestrife[6]	*(Lythrum salicaria)*	P
Purslane	*(Portulaca spp.)*	A
Pusley, Florida[3]	*(Richardia scabra)*	A
Rocket, London[3]	*(Sisymbrium irio)*	A
Rush skeletonweed[3]	*(Chondrilla juncea)*	B
Saltbush	*(Atriplex spp.)*	A
Shepherd's-purse[3]	*(Capsella bursa-pastoris)*	A
Spurge, Annual[3]	*(Euphorbia spp.)*	A
Stinging nettle[4]	*(Urtica dioica)*	P
Velvetleaf[3]	*(Abutilon theophrasti)*	A
Yellow starthistle	*(Centaurea solstitialis)*	A

Apply 4-6 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Arrowwood	*(Pluchea sericea)*	A
Canada thistle	*(Cirsium arvense)*	P
Giant ragweed	*(Ambrosia trifida)*	A
Grey rabbitbrush	*(Chrysothamnus nauseosus)*	P
Japanese bamboo /knotweed	*(Polygonum cuspidatum)*	P
Little mallow	*(Malva parviflora)*	B
Milkweed	*(Asclepias spp.)*	P
Primrose	*(Oenothera kunthiana)*	P
Russian knapweed	*(Centaurea repens)*	P
Silverleaf nightshade	*(Solanum elaeagnifolium)*	P
Sowthistle	*(Sonchus spp.)*	A
Texas thistle	*(Cirsium texanum)*	P

VINES AND BRAMBLES

Apply 1 pint per acre

COMMON NAME	SPECIES	GROWTH HABIT[2]
Field bindweed	*(Convolvulus arvensis)*	P
Hedge bindweed	*(Calystegia sepium)*	A

Apply 2-3 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Wild buckwheat	*(Polygonum convolvulus)*	P

Apply 3-4 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Greenbriar	*(Smilax spp.)*	P
Honeysuckle	*(Lonicera spp.)*	P
Morningglory	*(Ipomoea spp.)*	A/P
Poison ivy	*(Rhus radicans)*	P
Redvine	*(Brunnichia cirrhosa)*	P
Wild rose	*(Rosa spp.)*	P
Including:		
Multiflora rose	*(Rosa multiflora)*	P
Macartney rose	*(Rosa bractreata)*	P

Apply 4-6 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
Trumpetcreeper	*(Campsis radicans)*	P
Virginia creeper	*(Parthenocissus quinquefolia)*	P
Wild grape	*(Vitis spp.)*	P

BRUSH SPECIES

Apply 4-6 pints per acre[1]

COMMON NAME	SPECIES	GROWTH HABIT[2]
American beech	*(Fagus grandifolia)*	P
Ash	*(Fraxinus spp.)*	P
Bald cypress	*(Taxodium distichum)*	P
Bigleaf Maple	*(Acer macrophylum)*	P
Black Locust[7]	*(Robinia pseudoacacia)*	P
Blackgum	*(Nyssa sylvatica)*	P
Boxelder	*(Acer negundo)*	P
Brazilian peppertree	*(Schinus terebinthifolius)*	P
Cherry	*(Prunus spp.)*	P
Chinaberry	*(Melia azadarach)*	P
Chinese tallow-tree	*(Sapium sebiferum)*	P
Dogwood	*(Cornus spp.)*	P
Elm[8]	*(Ulmus spp.)*	P
Hawthorn	*(Crataegus spp.)*	P
Hickory	*(Carya spp.)*	P
Honeylocust[9]	*(Gleditsia triacanthos)*	P
Maple	*(Acer spp.)*	P
Melaleuca	*(Melaleuca quiquenervia)*	P
Mulberry	*(Morus spp.)*	P
Oak	*(Quercus spp.)*	P
Persimmon	*(Diospyros virginiana)*	P
Pine[10]	*(Pinus spp.)*	P
Poplar	*(Populus spp.)*	P
Privet	*(Ligustrum vulgare)*	P
Red Alder	*(Alnus rubra)*	P
Red Maple	*(Acer rubrum)*	P
Russian Olive	*(Eleagnus angustifolia)*	P
Saltcedar	*(Tamarix ramosissima)*	P
Sassafras	*(Sassafras albidum)*	P
Sourwood	*(Oxydendrum arboreum)*	P
Sumac	*(Rhus spp.)*	P
Sweetgum	*(Liquidambar styraciflua)*	P
Willow	*(Salix spp.)*	P
Yellow poplar	*(Liriodendron tulipifera)*	P

[1] The higher rates should be used where heavy or well established infestations occur.
[2] Growth Habit – A = Annual, B = Biennial, P = Perennial
[3] For preemergence control, tank-mix with Pendulum®.
[4] Use a minimum of 75 GPA – Control of established stands may require repeat applications.
[5] For preemergence control, tank-mix with Pendulum® or Karmex®.
[6] For best results early postemergence applications are required.
[7] Tank-mix with Roundup®, Accord®, Escort®, Krenite®, Garlon™ 3A, or Tordon™ K.
[8] Tank-mix with Roundup®, Accord® or Escort®.
[9] Tank-mix with Roundup®, Accord® Garlon™ 3A, or Tordon™ K.
[10] Tank-mix with Accord®, Roundup®, Garlon™ 3A, or Tordon™ K, or Krenite®.

Specimen Label

ADJUVANTS

For optimal postemergence performance of **Alligare Imazapyr 2 SL**, the addition of an adjuvant to the spray solution is essential to aid in the deposition and uptake of the herbicide.

Nonionic Surfactants: Use a nonionic surfactant at 0.25% to 1% of the total spray volume (0.25% v/v is equivalent to 1 quart in 100 gallons) in accordance with the surfactant labeling. For best results, select a nonionic surfactant with a HLB (hydrophilic to lipophilic balance) ratio between 12 and 17 with at least 70% surfactant in the formulated product. Alcohols, fatty acids, horticultural spray oils, ethylene glycol or diethylene glycol should not be considered as surfactants to meet these requirements.

Methylated Seed Oils or Vegetable Oil Concentrates: Methylated seed oil or vegetable oil concentrate may be used at 1.5 to 2 pints per acre. When using spray volumes greater than 30 gallons per acre, mix methylated seed oil or vegetable oil concentrate at a rate of 1% of the total spray volume

Silicone-Based Surfactants: Silicone-based surfactants allow greater spreading of the spray droplet on the leaf surface, as compared to conventional nonionic surfactants. However, some silicone-based surfactants may dry too quickly and limit herbicide uptake. Refer to the surfactant manufacturer's label for specific recommendations.

Fertilizer/Surfactant Blends: Nitrogen-based liquid fertilizers such as 28% N, 32% N, 10-34-0 or ammonium sulfate may be used with **Alligare Imazapyr 2 SL** at 2 to 3 pints per acre in combination with the recommended rate of nonionic surfactant, methylated seed oil or vegetable oil concentrate. Tank mixes with nitrogen-based fertilizers without a nonionic surfactant, methylated seed oil or vegetable oil concentrate is not recommended.

BRUSH CONTROL

AERIAL APPLICATIONS:

Exercise all precautions to minimize or eliminate spray drift. Fixed wing aircraft and helicopters can be used to apply **Alligare Imazapyr 2 SL**; however, **DO NOT** apply by fixed wing aircraft unless appropriate buffer zones can be maintained to prevent spray drift out of the target area or, if treating open tracts of land where spray drift from fixed wing aircraft application can be tolerated. Aerial equipment designed to minimize spray drift, such as helicopters equipped with a Microfoil™ boom, Thru-Valve™ boom or raindrop nozzles, must be used and calibrated. Unless applying with a Microfoil™ boom, use a drift control agent at the recommended label rate. To avoid drift, **DO NOT** make applications during inversion conditions, when winds are gusty, or during any other conditions that promote spray drift. Side trimming is not recommended with **Alligare Imazapyr 2 SL** unless death of treated vegetation is acceptable.

Uniformly apply **Alligare Imazapyr 2 SL** in 5 to 30 gallons of water per acre. Use a nonionic surfactant, methylated seed oil or silicone-based surfactant (See the **ADJUVANT** section of this label for specific recommendations). An anti-foam agent may be added, if needed.

Thoroughly clean application equipment, including landing gear, by thoroughly flushing with water immediately after using this product. Prolonged exposure of uncoated/unpainted steel (except stainless steel) surfaces to this product may result in corrosion and failure of the exposed part. Maintaining painted surfaces may prevent corrosion.

GROUND APPLICATIONS:

To minimize spray drift, select proper nozzles to avoid spraying a fine mist, use pressures less than 50 psi and **DO NOT** spray under gusty or windy conditions (also refer to **SPRAY DRIFT MANAGEMENT** section). Use an anti-foam agent, if needed, and a spray pattern indicator, if desired. Thoroughly clean application equipment after using this product by thoroughly flushing with water. Prolonged exposure of uncoated/unpainted steel (except stainless steel) surfaces to this product may result in corrosion and failure of the exposed part.

When making applications to rights-of-way corridors where roots of desirable vegetation may extend, apply 1 to 3 pints of **Alligare Imazapyr 2 SL** per acre in combination with recommended tank-mixes. It is not recommended to use rates higher than 3 pints per acre in such situations as injury or death of desirable vegetation may occur.

Side Trimming: **DO NOT** side trim with **Alligare Imazapyr 2 SL** unless severe injury or death of the treated vegetation is acceptable. **Alligare Imazapyr 2 SL** is readily translocated and can result in death of the entire tree.

Low Volume: Use equipment calibrated to deliver 5 to 20 gallons of spray solution per acre. Thoroughly mix 0.5 to 5% (v/v) **Alligare Imazapyr 2 SL** in water plus surfactant (See the **ADJUVANT** section of this label for recommendations). Use an anti-foam agent at the recommended rate, if needed. For difficult to control brush species (See **WEEDS CONTROLLED** section for relative susceptibility of weed species), apply the higher concentrations of herbicide and/or spray volumes but **DO NOT** apply more than 6 pints of **Alligare Imazapyr 2 SL** per acre. Excessive wetting of foliage is not recommended. See the **MIXING GUIDE** below for suggested volumes of **Alligare Imazapyr 2 SL** and water.

SUGGESTED TANK-MIXES AND APPLICATION RATES*

Target Vegetation	Rate of Alligare Imazapyr 2 SL	Tank Mix
Mixed hardwoods without elm, locust, or pine	1.0 – 1.5% by volume	Surfactant
Mixed hardwoods containing elm, locust, and pine	0.5 – 1.0% by volume	Accord® at 2 – 3% by volume plus surfactant
Mixed hardwoods with locust and pine but no elm	0.5 – 1.0% by volume	Krenite® at 2 – 5% by volume plus surfactant
Mixed hardwoods with locust and elm but no pine	0.5 – 1.0% by volume	Escort® at 2 oz./Acre or 2.3 grams/gal. plus surfactant

*Tank mixes with products containing 2,4-D have resulted in reduced efficacy of **Alligare Imazapyr 2 SL.**

MIXING GUIDE

% Solution	Amount Alligare Imazapyr 2 SL per Gallon of mix	Amount Alligare Imazapyr 2 SL per 4 Gallon Backpack
0.5%	0.6 oz	2.6 oz
1.0%	1.3 oz	5.1 oz
2.0%	2.6 oz	10.2 oz
3.0%	3.8 oz	15.4 oz
5.0%	6.4 oz	25.6 oz

MEASURING CHART

128 ounces	=	1 gallon
16 ounces	=	1 pint
8 pints	=	1 gallon
4 quarts	=	1 gallon
2 pints	=	1 quart

Application Tips: For low volume applications, select appropriate nozzles to avoid overapplication. Proper application is critical to ensure desirable results. Optimum results are achieved when the spray covers the crown and approximately 70 percent of the plant. The use of a flat fan nozzle tip with a spray angle of 40 degrees or less will aid in proper deposition.

Recommended nozzle tip sizes include 4004E or 1504E. For a straight stream and cone pattern, use adjustable cone nozzles such as 5500 X3 or 5500 X4. Attaching a roll-over valve onto a Spraying Systems Model 30 gunjet or other similar spray guns allows for the use of both a flat fan and cone tips on the same gun.

Proper Spray Pattern: Moisten, but **DO NOT** drench target vegetation. **DO NOT** spray to run-off.

Low Volume with Backpacks: For brush up to 4 feet tall, spray downward to cover approximately 70% of the plant foliage and the crown.

For brush 4 to 8 feet tall, apply a directed spray in a smooth vertical motion from the crown upward on at least two sides of the target vegetation, making sure to cover the crown whenever possible.

For brush over 8 feet tall, apply a directed spray in a smooth zig-zag motion from the crown upward on at least two sides of the target brush.

Low Volume with Hydraulic Handgun Application Equipment: Use same technique as described above for Low Volume with Backpacks.

For broadcast applications, simulate a gentle rain near the top of target vegetation, allowing spray to penetrate the target foliage and contact the crown without run-off onto understory vegetation. **DO NOT** spray to run-off. Herbicide spray that contacts understory vegetation may result in severe injury or death of understory plants.

MIXING GUIDE FOR LOW VOLUME APPLICATIONS

AMOUNT OF SPRAY SOLUTION BEING PREPARED	DESIRED CONCENTRATION (fluid volume)				
	0.5%	0.75%	1.0%	1.5%	5.0%
	(Amount of Alligare Imazapyr 2 SL to use)				
1 gallon	0.6 oz	0.9 oz	1.3 oz	1.9 oz	6.5 oz
3 gallons	1.9 oz	2.8 oz	3.8 oz	5.8 oz	1.2 pints
4 gallons	2.5 oz	3.8 oz	5.1 oz	7.7 oz	1.6 pints
5 gallons	3.2 oz	4.8 oz	6.5 oz	9.6 oz	2 pints
50 gallons	2 pints	3 pints	4 pints	6 pints	10 quarts
100 gallons	4 pints	6 pints	8 pints	6 quarts	5 gallons
2 tablespoons = 1 fluid ounce					

High Volumes: For optimum performance when spraying medium to high density brush, use equipment calibrated to deliver up to 100 gallons of finished spray per acre (GPA). Application volumes exceeding 100 GPA may result in excessive spray run-off, causing injury to desirable ground cover species. Thoroughly mix **Alligare Imazapyr 2 SL** at 2 to 6 pints per acre in water and include a surfactant (See **ADJUVANT** section for surfactant recommendations). Use an anti-foam agent according to its label, if needed. For hard-to-control species (See **WEEDS CONTROLLED** section for relative susceptibility of weeds), use the higher concentrations of herbicide and/or spray volumes but **DO NOT** apply more than 6 pints of **Alligare Imazapyr 2 SL** per acre. Uniformly cover the foliage of the target vegetation but **DO NOT** apply to run-off.

TANK MIXES FOR BRUSH CONTROL:

Alligare Imazapyr 2 SL may be tank-mixed with Accord®, Roundup®, Krenite®, Escort®, Telar®, Tordon™ K, Garlon™ 3A, Banvel® and Vanquish® to provide control of **Alligare Imazapyr 2 SL**-tolerant species.

Consult manufacturer's labels for specific rates and weeds controlled. Always follow the more restrictive label when making an application involving tank-mixes. Tank-mixing with products that contain 2,4-D may reduce the performance of **Alligare Imazapyr 2 SL.**

INVERT EMULSIONS:

Alligare Imazapyr 2 SL can be applied as an invert emulsion (water-in-oil emulsion) to minimize spray drift and spray run-off, thereby delivering more herbicide to the target foliage. The spray emulsion may be formed in a single tank (batch mixing) or injected (in-line mixing). Refer to the invert chemical label for proper mixing directions.

CUT STUBBLE:
Alligare Imazapyr 2 SL can be applied within 2 weeks after mechanical mowing or cutting of brush to suppress or control resprouting. Apply **Alligare Imazapyr 2 SL** at 1 to 2 pints per acre to the cut area. **Alligare Imazapyr 2 SL** may be tank-mixed with Tordon™ K to aid in control or suppression of brush. The addition of 5% (v/v) or more of a penetrating agent (surfactant) can aid herbicide uptake through the bark or exposed roots.

Since cut stubble applications are made to the soil and cut brush stumps, ground cover injury may occur. However, vegetation will recover. NOTE that applications of **Alligare Imazapyr 2 SL** directly to the soil beneath desirable trees can result in root uptake and cause injury or death to desirable trees.

To reduce potential root uptake by desirable vegetation, allow target brush to first regrow some foliage, then apply **Alligare Imazapyr 2 SL** to brush foliage. See the **BRUSH CONTROL** section of this label.

STUMP AND CUT STEM TREATMENTS:
Alligare Imazapyr 2 SL may be used to control undesirable woody vegetation on non-cropland by application to the cambium area of freshly-cut stump surfaces or to fresh cuts on the stem of the target woody vegetation. Applications can be made at any time of the year except during periods of heavy sap flow in the spring. Tree injection and cut stem treatments are most effective in late summer and early fall. **DO NOT** over-apply to cause run-off or puddling of spray solution.

Mixing: Mix **Alligare Imazapyr 2 SL** as either a concentrate or dilute solution for stump and cut stem treatments. Apply dilute solutions to the surface of the stump or to cuts on the stem of the target woody vegetation. Apply concentrate solutions to cuts on the stem. Use of the concentrate solutions permits application to fewer cuts on the stem, especially for large diameter trees. Follow the application directions below to determine proper application techniques for each type of solution.

To prepare a dilute solution, mix 8 to 12 fluid ounces of **Alligare Imazapyr 2 SL** with one gallon of water. Except in the state of California, if temperatures are such that freezing of the spray mixture may occur, antifreeze (ethylene glycol) may be added according to manufacturer's label to prevent freezing. The use of a surfactant or penetrating agent may improve herbicide uptake through partially callused cambium tissue.

To prepare a concentrated solution, mix 2 quarts of **Alligare Imazapyr 2 SL** with no more than 1 quart of water.

APPLICATION WITH DILUTE SOLUTIONS:
For cut stump treatments: Spray or brush the solution onto the cambium area of the freshly cut stump surface. Thoroughly wet the entire cambium area (the wood just inside the bark of the stump).

For tree injection treatments: Using standard injection equipment, apply 1 milliliter of solution at each injection site around the tree with no more than one inch intervals between cut edges. Insure that the injector completely penetrates the bark at each injection site.

For frill or girdle treatments: Use a hatchet, machete or similar implement to make cuts through the bark around the tree at intervals no more than two inches between cut edges. Spray or brush **Alligare Imazapyr 2 SL** solution into each cut until thoroughly wet.

APPLICATION WITH CONCENTRATED SOLUTIONS:
For tree injection treatments: Using standard injection equipment, apply 1 milliliter of solution at each injection site. Make at least one injection cut for every 3 inches of Diameter at Breast Height (DBH) on the target tree. For example, a 3 inch DBH tree will receive 1 injection cut while a 6 inch DBH tree will receive 2 injection cuts. On trees requiring more than one injection site, place the injection cuts at approximately equal intervals around the tree.

For frill or girdle treatments: Use a hatchet, machete or similar implement to make cuts at a downward angle through the bark at approximately equal intervals around the tree. Make at least one cut for every 3 inches of DBH on the target tree as described above, then spray or brush **Alligare Imazapyr 2 SL** solution into each cut until thoroughly wet ensuring that the solution does not run out of the cut.

NOTE: Injury may occur to desirable woody plants if the shoots extend from the same root system or their root systems are grafted to those of the treated tree.

TOTAL VEGETATION CONTROL IN NON-CROP AREAS WHERE BAREGROUND IS DESIRED
Alligare Imazapyr 2 SL is an effective herbicide for preemergence or postemergence control of many annual and perennial broadleaf and grass weeds in non-crop areas where bareground is desired, including areas such as railroad, utility, pipeline and highway rights-of-way, utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, and non-irrigation ditchbanks. **Alligare Imazapyr 2 SL** is particularly effective on hard-to-control perennial grasses. **Alligare Imazapyr 2 SL** can be used alone at 1.5 to 6 pints per acre or in tank-mixes with Roundup®, Finale®, MSMA, Diuron, Karmex®, Pendulum®, Simazine, Banvel®, Vanquish®, or Oust® herbicides. The degree and duration of control are dependent on the rate of **Alligare Imazapyr 2 SL** used, the tank-mix partner, the volume of carrier, soil texture, rainfall and other conditions.

Apply **Alligare Imazapyr 2 SL** at anytime of the year. Use equipment calibrated to deliver desired gallons per acre spray volume and uniformly distribute the spray pattern over the treated area.

Postemergence Applications: Always use a spray adjuvant (See **ADJUVANT** section of this label) in postemergence applications. For optimum performance on hard-to-control annual grasses, apply 100 gallons per acre or less. For quicker burndown of target weeds, tank mix **Alligare Imazapyr 2 SL** with products such as Roundup®, Finale®, or MSMA. Tank mixes with products that contain 2,4-D have reduced performance of **Alligare Imazapyr 2 SL**. Always follow the more restrictive label when tank-mixing.

Spot Treatments: Alligare Imazapyr 2 SL may be used as a follow-up treatment to control escapes or weed encroachment in a bareground situation. To prepare the spray solution, thoroughly mix 0.5 to 5% **Alligare Imazapyr 2 SL** plus an adjuvant in a gallon of water. For increased burndown, tank mix with Roundup®, Finale®, MSMA, or similar products. For extended residual weed control or to increase the weed spectrum, add Pendulum® or Diuron (See **TANK MIX RECOMMENDATIONS FOR BAREGROUND**). Always follow the more restrictive label when tank-mixing.

FOR CONTROL OF UNDESIRABLE WEEDS UNDER PAVED SURFACES
Alligare Imazapyr 2 SL can be used under asphalt, pond liners and other paved areas, but ONLY in industrial sites or where the pavement has a suitable barrier along the perimeter that prevents encroachment of roots from desirable plants.

Alligare Imazapyr 2 SL should only be used where the area to be treated has been prepared according to good construction practices. Before application of **Alligare Imazapyr 2 SL**, rhizomes, stolons, tubers or vegetative plant parts should be removed from the treatment site by scalping with a grader blade to a depth sufficient to insure their complete removal.

IMPORTANT: Paving should follow **Alligare Imazapyr 2 SL** applications as soon as possible. **DO NOT** apply where the chemical may contact the roots of desirable trees or other plants.

This product is not recommended for use under pavement on residential properties such as driveways or parking lots, nor in recreational areas such as under bike or jogging paths, golf cart paths, tennis courts, or where landscape plantings could be anticipated. Injury or death of desirable plants may result if this product is applied where roots are present or where they may extend into the treated area. NOTE that roots of trees and shrubs may extend a considerable distance beyond the branch extremities; i.e., drip line.

APPLICATION DIRECTIONS FOR PAVED SURFACES:
Applications should be made to the soil surface only when final grade is established. **DO NOT** move soil following **Alligare Imazapyr 2 SL** application.

Apply **Alligare Imazapyr 2 SL** in at least 100 gal. water per acre to ensure thorough and uniform wetting of the soil surface, including the shoulder areas. Prepare spray solution by thoroughly mixing **Alligare Imazapyr 2 SL** at 6 pints per acre (2.2 fluid ounce per 1000 square feet) into clean water in the spray tank

If the soil is not moist before treatment, **Alligare Imazapyr 2 SL** should be incorporated into the soil to a depth of 4 to 6 inches using a roto-tiller or disc. Rainfall or irrigation of 1 inch will also provide uniform incorporation. **DO NOT** allow treated soil to wash or move from treated areas into untreated areas.

FOR CONTROL OF UNDESIRABLE WEEDS IN UNIMPROVED BERMUDAGRASS AND BAHIAGRASS
Alligare Imazapyr 2 SL may be used on established Common Bermudagrass, Coastal Bermudagrass and Bahiagrass turf on roadsides, utility rights-of-way and other non-cropland industrial sites to control the weeds listed below. Such treatment of Bermudagrass with **Alligare Imazapyr 2 SL** will result in a compacted growth habit and seedhead inhibition.

Uniformly apply **Alligare Imazapyr 2 SL** with properly calibrated ground equipment using at least 10 gallons of water per acre and a spray pressure 20 to 50 psi.

IMPORTANT: Temporary yellowing of grass may occur when treatment is made after growth commences. **DO NOT** add surfactant in excess of 1 oz. per 25 gallons of spray solution. **DO NOT** apply to grass during its first growing season. **DO NOT** apply to grass that is under stress from drought, disease, insects or other causes.

DOSAGE RATES AND TIMING:
Bermudagrass: Apply **Alligare Imazapyr 2 SL** at 6 to 12 oz. per acre when the Bermudagrass is dormant. Apply **Alligare Imazapyr 2 SL** at 6 to 8 oz. per acre after the Bermudagrass has reached full green-up. Applications made during green-up will delay green-up. Include a surfactant in the spray solution.

For broader spectrum or longer preemergence control of annual grasses and small seeded broadleaf weeds, add Pendulum® herbicide at 3.3 to 6.6 lbs. per acre. Consult the Pendulum® label for weeds controlled and for other use directions and precautions.

For control of Johnsongrass in Bermudagrass turf, apply **Alligare Imazapyr 2 SL** at 8 oz. per acre plus Roundup® herbicide at 12 oz. per acre plus surfactant. For additional control of broadleaves and vines, add Garlon™ 3A to the above mix at 1-2 pints per acre. Observe all precautions and restrictions on the Garlon™ 3A and Roundup® labels.

Bahiagrass: Apply **Alligare Imazapyr 2 SL** at 4 to 8 oz. per acre when the Bahiagrass is dormant or after the grass has initiated green-up but has not exceeded 25% green-up. Include a surfactant in the spray solution (See **ADJUVANT** section for surfactant recommendations).

WEEDS CONTROLLED:
Bedstraw (*Galium* spp.)
Bishopweed (*Ptilimnium capillaceum*)
Buttercup (*Ranunculus parviflorus*)
Carolina geranium (*Geranium carolinianum*)
Fescue (*Festuca* spp.)
Foxtail (*Setaria* spp.)
Little barley (*Hordeum pusillum*)
Seedling Johnsongrass (*Sorghum halepense*)
Wild carrot (*Daucus carota*)
White clover (*Trifolium repens*)
Yellow woodsorrel (*Oxalis stricta*)

GRASS GROWTH AND SEEDHEAD SUPPRESSION
Alligare Imazapyr 2 SL will suppress growth and seedhead development of certain turfgrasses in unimproved areas. When applied to desirable turf, **Alligare Imazapyr 2 SL** may

result in temporary turf damage and/or discoloration, depending on environmental conditions. For optimum performance, apply **Alligare Imazapyr 2 SL** before culm elongation, either before or after mowing. If applied before mowing, allow at least three days of active growth before mowing. If following a mowing, allow sufficient time for the grasses to recover before applying **Alligare Imazapyr 2 SL** or injury may be amplified.

DO NOT apply to turf under stress (drought, cold, insect damaged, etc.) or severe injury or death may occur.

Bermudagrass: Apply **Alligare Imazapyr 2 SL** at 6 to 8 oz. per acre from early green-up to prior to seed head initiation. **DO NOT** use a surfactant for this application.

Cool Season Unimproved Turf: Apply **Alligare Imazapyr 2 SL** at 2 oz. per acre plus 0.25% nonionic surfactant. For increased suppression, tank mix **Alligare Imazapyr 2 SL** with products such as Campaign® (24 oz. per acre) or Embark® (8 oz. per acre).

Tank-mixes may increase injury to desired turf. Consult each product label for recommended turf species, use directions and precautions. Tank mixes with products that contain 2,4-D may decrease the effectiveness of **Alligare Imazapyr 2 SL**.

INSTRUCTIONS FOR RANGELAND USE (ALL STATES EXCEPT CALIFORNIA)

Alligare Imazapyr 2 SL may be applied to rangeland for controlling undesirable vegetation to achieve one or more of the following vegetation management objectives:

1. To control undesirable (non-native, invasive and noxious) plant species.
2. To control undesirable vegetation to aid in establishing desirable rangeland plant species.
3. To control undesirable vegetation to aid in establishing desirable rangeland vegetation following a fire.
4. To control undesirable vegetation for wildfire fuel reduction.
5. To release existing desirable rangeland plant communities from the competitive pressure of undesirable plant species.
6. To control undesirable vegetation for wildlife habitat improvement.

To ensure the protection of threatened and endangered plants when applying **Alligare Imazapyr 2 SL** to rangeland:

1. Federal agencies must follow NEPA regulations.
2. State agencies must work with the Fish and Wildlife Service or its designated state conservation agencies.
3. Other organizations or individuals must operate under a Habitat Conservation Plan if threatened or endangered plants are known to be present in the area to be treated.

See the appropriate section(s) of this label for specific use directions for the desired rangeland vegetation management objective.

Alligare Imazapyr 2 SL should only be applied to rangeland as specific weed problems arise. Long term control of undesirable weed species ultimately depends on successful land management practices that promote the growth and sustainability of desirable rangeland plant species.

Grazing and haying restrictions: There are no grazing restrictions following **Alligare Imazapyr 2 SL** application. **DO NOT** cut forage grass for hay for seven days after **Alligare Imazapyr 2 SL** application.

ROTATIONAL CROP INSTRUCTIONS

Rotational crops may be planted twelve months after **Alligare Imazapyr 2 SL** application at the recommended pasture and rangeland rates. To avoid damage to crops planted in these areas, and to ensure complete **Alligare Imazapyr 2 SL** dissipation in treated sites, a field bioassay should be conducted before planting to crops. To conduct a field bioassay, grow to maturity test strips of the crop(s) intended for planting the following year. The test strips should cross the entire field including knolls and low areas and include variations in soil type and pH within the treated area. Crop response to the bioassay will indicate whether or not to plant the crop(s) grown in the test strips.

Use of **Alligare Imazapyr 2 SL** in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.
PESTICIDE STORAGE: DO NOT store below 10°F.
PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Nonrefillable containers (1 quart, 1, 2.5 and 30 gallon): Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable ≤ 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Refillable container (250 gallon & bulk): Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

IMPORTANT: Read the entire **DIRECTIONS FOR USE** and the **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY** before using this product. If terms are not acceptable, return the unopened product container at once.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

To the extent consistent with applicable law, upon purchase or use of this product, purchaser and user agree to the following terms:

Warranty: Alligare, LLC (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control. To the extent consistent with applicable law, the Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose. No such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

Terms of Sale: The Company's directions for use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. To the extent consistent with applicable law, all such risks are assumed by the user.

Limitation of Liability: To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. To the extent consistent with applicable law, under no circumstances shall the Company be liable for any special, indirect, incidental or consequential damages of any kind, including loss of profits or income, and any such claims are hereby waived. Some states do not allow the exclusion or limitation of incidental or consequential damages.

The Company and the seller offer this product, and the purchaser and user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

Banvel and Pendulum are registered trademarks of BASF.
Microfoil is a trademark of Rhone Poulenc Ag. Company.
Thru-Valve is a trademark of Waldrum Specialties.
Accord, Campaign and Roundup are registered trademarks of Monsanto Company
Escort, Karmex, Krenite, Oust and Telar are registered trademarks of E.I. DuPont de Nemours and Company.
Garlon and Tordon are trademarks of Dow AgroSciences Company.
Embark is a registered trademark of PBI/Gordon Corporation.
Finale is a registered trademark of Bayer.
Vanquish is a trademark of a Syngenta Group Company.

EPA 20081209

Specimen Label

ELEMENT® 3A

Specialty Herbicide

®Trademark of Dow AgroSciences LLC

For the control of woody plants, broadleaf weeds in range and pasture, forests and non-crop areas, including manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and around farm buildings; and applications to grazed areas, and establishment and maintenance of wildlife openings, and in Christmas tree plantations and aquatic sites.

For use in New York State, comply with Section 24(c) Special Local Need labeling for Element 3A, SLN NY-110005.

Active Ingredient:	
triclopyr: 3,5,6-trichloro-2-pyridinyloxyacetic acid, triethylamine salt	44.4%
Other Ingredients	55.6%
Total	100.0%

Acid equivalent: triclopyr - 31.8% - 3 lb/gal

Precautionary Statements

Hazard to Humans and Domestic Animals

EPA Reg. No. 62719-37

DANGER

Corrosive • Causes Irreversible Eye Damage • Harmful If Swallowed Or Absorbed Through Skin • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reaction In Some Individuals

Do not get in eyes or on skin or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Protective eyewear
- Chemical resistant gloves (≥14 mils) such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Note to Applicator: Allergic skin reaction is not expected from exposure to spray mixtures of Element 3A herbicide when used as directed.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Under certain conditions, treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants, which may contribute to fish suffocation. This loss can cause fish suffocation. Therefore, to minimize this hazard, do not treat more than one-third to one-half of the water area in a single operation and wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State agency for fish and game before applying to public water to determine if a permit is needed.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Physical or Chemical Hazards

Combustible. Do not use or store the product near heat or open flame.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Shoes plus socks
- Protective eyewear
- Chemical-resistant gloves (≥14 mils) such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications to non-cropland areas, do not allow entry into areas until sprays have dried, unless applicator and other handler PPE is worn.

Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal. Open dumping is prohibited.

Pesticide Storage: Store above 28°F or agitate before use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Storage and Disposal (Cont.)

Nonrefillable containers 5 gallons or less:
Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers 5 gallons or larger:
Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Nonrefillable containers 5 gallons or larger:
Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

General Information for Forests and Non-Crop Areas

Use Element® 3A specialty herbicide for the control of woody plants and broadleaf weeds in range and pasture, forests and non-crop areas including manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and around farm buildings, and applications to grazed areas, and establishment and maintenance of wildlife openings, and in Christmas tree plantations and aquatic sites.

Obtain Required Permits: Consult with appropriate state or local water authorities before applying this product to public waters. State or local public agencies may require permits.

General Use Precautions and Restrictions

For use in New York State, comply with Section 24(c) Special Local Need labeling for Element 3A, SLN NY-110005.

When applying this product in tank mix combination, follow all applicable use directions, precautions and limitations on each manufacturer's label. **Note:** If tank mixing with Rodeo® herbicide, mix the Element 3A with at least 75% of the total spray volume desired and ensure that Element 3A is well mixed before adding the Rodeo to avoid incompatibility.

Chemigation: Do not apply this product through any type of irrigation system.

Do not apply Element 3A directly to, or otherwise permit it to come into direct contact with, grapes, tobacco, vegetable crops, flowers, or other desirable broadleaf plants. Do not permit spray mists containing Element 3A to drift onto such plants.

It is permissible to treat non-irrigation ditch banks, seasonally dry wetlands (such as flood plains, deltas, marshes, swamps, or bogs), and transitional areas between upland and lowland sites.

Water treated with Element 3A may not be used for irrigation purposes for 120 days after application or until residue levels of Element 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

Seasonal Irrigation Waters: Element 3A may be applied during the off-season to surface waters that are used for irrigation on a seasonable basis provided that there is a minimum of 120 days between applying Element 3A and the first use of treated water for irrigation purposes, or until residue levels of Element 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

Irrigation Canals/Ditches: Do not apply Element 3A to irrigation canals/ditches unless the 120-day restriction on irrigation water usage can be observed or residue levels of Element 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

- **Do not** apply to salt water bays or estuaries.
- **Do not** apply directly to un-impounded rivers or streams.
- **Do not** apply on ditches or canals currently being used to transport irrigation water or that will be used for irrigation within 4 months following treatment. It is permissible to treat irrigation and non-irrigation ditch banks.
- **Do not** apply where runoff water may flow onto agricultural land as injury to crops may result.
- When making applications to control unwanted plants on banks or shorelines of moving water sites, minimize overspray to open water.
- The use of a mistblower is not recommended.
- Apply no more than 2 lb ae of triclopyr (2/3 gallon of Element 3A) per acre per growing season on range and pasture sites, including rights-of-way, fence rows or any area where grazing or harvesting is allowed.
- On forestry sites, Element 3A may be used at rates up to 6 lb ae of triclopyr (2 gallons of Element 3A) per acre per year.
- For all terrestrial use sites other than range, pasture, forestry sites, and grazed areas, the maximum application rate is 9 lb ae of triclopyr (3 gallons of Element 3A) per acre per year.

For use in New York State, comply with Section 24(c) Special Local Need labeling for Element 3A, SLN NY-110005.

Precautions for Potable Water Intakes for Emerged Aquatic Weed Control
See chart below for specific setback distances near functioning potable water intakes. **Note:** Existing potable water intakes which are no longer in use, such as those replaced by potable water wells or connections to a municipal water system, are not considered to be functioning potable water intakes. These setback restrictions do not apply to terrestrial applications made adjacent to potable water intakes.

	Element 3A Application Rate			
Area Treated	2 qt/acre	4 qt/acre	6 qt/acre	8 qt/acre
(acres)	Setback Distance (ft)			
4	0	200	400	500
>4 - 8	0	200	700	900
>8 - 16	0	200	700	1000
>16	0	200	900	1300

To apply Element 3A around and within the distances noted above from a functioning potable water intake, the intake must be turned off until the triclopyr level in the intake water is determined to be 0.4 parts per million (ppm) or less by laboratory analysis or immunoassay.

- **Recreational Use of Water in Treatment Area:** There are no restrictions on use of water in the treatment area for recreational purposes, including swimming and fishing.
- **Livestock Use of Water from Treatment Area:** There are no restrictions on livestock consumption of water from the treatment area.

Grazing and Haying Restrictions
Except for lactating dairy animals, there are no grazing restrictions following application of this product.

- **Grazing Lactating Dairy Animals:** Do not allow lactating dairy animals to graze treated areas until the next growing season following application of this product.
- Do not harvest hay for 14 days after application.
- Grazed areas of non-cropland and forestry sites may be spot treated if they comprise no more than 10% of the total grazable area.

Slaughter Restrictions: During the season of application, withdraw livestock from grazing treated grass at least 3 days before slaughter.

Avoiding Injurious Spray Drift

Make applications only when there is little or no hazard from spray drift. Small quantities of spray, which may not be visible, may seriously injure susceptible plants. Do not spray when wind is blowing toward

susceptible crops or ornamental plants that are near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movement, lapse conditions, or temperature inversions (stable air). If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

Aerial Application: For aerial application on rights-of-way or other areas near susceptible crops, apply through a Microfoil† or Thru-Valve boom†, or use an agriculturally labeled drift control additive. Other drift reducing systems or thickened sprays prepared by using high viscosity inverting systems may be used if they are made as drift-free as mixtures containing agriculturally labeled thickening agents or applications made with the Microfoil or Thru-Valve boom. Keep spray pressures low enough to provide coarse spray droplets. Spray boom should be no longer than 3/4 of the rotor length. Do not use a thickening agent with the Microfoil or Thru-Valve booms, or other systems that cannot accommodate thick sprays. Spray only when the wind velocity is low (follow state regulations). Avoid application during air inversions. If a spray thickening agent is used, follow all use recommendations and precautions on the product label.

†Reference within this label to a particular piece of equipment produced by or available from other parties is provided without consideration for use by the reader at its discretion and subject to the reader's independent circumstances, evaluation, and expertise. Such reference by Dow AgroSciences is not intended as an endorsement of such equipment, shall not constitute a warranty (express or implied) of such equipment, and is not intended to imply that other equipment is not available and equally suitable. Any discussion of methods of use of such equipment does not imply that the reader should use the equipment other than is advised in directions available from the equipment's manufacturer. The reader is responsible for exercising its own judgment and expertise, or consulting with sources other than Dow AgroSciences, in selecting and determining how to use its equipment.

Spray Drift Management
Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the following Aerial Drift Reduction Advisory. [This information is advisory in nature and does not supersede mandatory label requirements.]

Aerial Drift Reduction Advisory
Information on Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size:
- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length: For some use patterns, reducing the effective boom length to less than 3/4 of the rotor length may further reduce drift without reducing swath width.

Application Height: Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Ground Equipment: To aid in reducing spray drift, Element 3A should be used in thickened (high viscosity) spray mixtures using an agriculturally labeled drift control additive, high viscosity invert system, or equivalent as directed by the manufacturer. With ground equipment, spray drift can be reduced by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; by keeping the operating spray pressures at the lower end of the manufacturer's recommended pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when wind velocity is low (follow state regulations). In hand-gun applications, select the minimum spray pressure that will provide adequate plant coverage (without forming a mist). Do not apply with nozzles that produce a fine-droplet spray.

High Volume Leaf-Stem Treatment: To minimize spray drift, do not use pressure exceeding 50 psi at the spray nozzle and keep sprays no higher than brush tops. An agriculturally labeled thickening agent may be used to reduce drift.

Plants Controlled

Woody Plant Species

alder
arrowwood
ash
aspen
Australian pine
bear clover (bearmat)
beech
birch
blackberry
blackgum
Brazilian pepper
cascara
ceanothus
cherry
chinquapin
choke cherry
cottonwood
crataegus (hawthorn)
Douglas fir
dogwood
elderberry
elm
gallberry
hazel
hornbean
kudzu[1]
locust
madrone
maples
mulberry
oaks
persimmon
pine
poison ivy
poison oak
poplar
salt-bush (*Baccharis* spp.)
salt cedar[2]
salmonberry
sassafras
scotch broom
sumac
sweetbay magnolia
sweetgum
sycamore
tanoak
thimbleberry
tulip poplar
waxmyrtle
western hemlock
wild rose
willow
winged elm

[1]For complete control, re-treatment may be necessary.
[2]Use cut surface treatments for best results.

Plants Controlled (Cont.)

Annual and Perennial Broadleaf Weeds

bindweed
burdock
Canada thistle
chicory
curly dock
dandelion
field bindweed
lambsquarter
Mexican petunia
plantain
purple loosestrife
ragweed
smartweed
Spanish needles/
common beggarthicks
tansy ragwort
tropical soda apple
vetch
wedelia
wild lettuce

Purple Loosestrife (*Lythrum salicaria*)
Purple loosestrife can be controlled with foliar applications of Element 3A. For broadcast applications, use a minimum of 4 1/2 to 6 lb ae of triclopyr (6 to 8 quarts of Element 3A) per acre. Apply Element 3A when purple loosestrife is at the bud to mid-flowering stage of growth. Follow-up applications for control of regrowth should be made the following year in order to achieve increased control of this weed species. For all applications, a non-ionic surfactant should be added to the spray mixture. Follow all directions and use precautions on the label of the surfactant. Thorough wetting of the foliage and stems is necessary to achieve satisfactory control. A minimum spray volume of 50 gallons per acre is recommended for ground broadcast applications.

If using a backpack sprayer, a spray mixture containing 1% to 1.5% Element 3A or 5 to 7.6 fl oz of Element 3A per 4 gallons of water should be used. All purple loosestrife plants should be thoroughly wetted.

Application Methods

Use Element 3A at rates of 3/4 to 9 lb ae of triclopyr (1/4 to 3 gallons of Element 3A) per acre to control broadleaf weeds and woody plants. In all cases, use the amount specified in enough water to give uniform and complete coverage of the plants to be controlled. Use only water suitable for spraying. Use an agriculturally labeled non-ionic surfactant for all foliar applications. When using surfactants, follow the use directions and precautions listed on the surfactant manufacturer's label. Use the higher concentrations of surfactant in the spray mixture when applying lower spray volumes per acre. The order of addition to the spray tank is water, spray thickening agent (if used), additional herbicide (if used), and Element 3A. Surfactant should be added to the spray tank last or as recommended on the product label. If combined with emulsifiable concentrate herbicides, moderate continuous adequate agitation is required.

Before using any recommended tank mixtures, read the directions and all use precautions on both labels. **Note:** If tank mixing with Rodeo® herbicide, mix the Element 3A with at least 75% of the total spray volume desired and ensure that Element 3A is well mixed before adding the Rodeo to avoid incompatibility.

For best results, apply when woody plants and weeds are actively growing. When hard to control species such as ash, blackgum, choke cherry, elm, maples, oaks, pines, or winged elm are prevalent and during applications made in late summer when the plants are mature and during drought conditions, use the higher rates of Element 3A alone or in combination with Tordon® 101 Mixture specialty herbicide. (Tordon 101 Mixture is a restricted use pesticide. See product label.) Tordon 101 Mixture is not registered for use in the states of California and Florida.

When using Element 3A in combination with 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile ester herbicides, generally the higher rates should be used for satisfactory brush control.

Use the higher dosage rates when brush approaches an average of 15 feet in height or when the brush covers more than 60% of the area to be treated. If lower rates are used on hard to control species, resprouting may occur the year following treatment.

On sites where easy to control brush species dominate, rates less than those listed may be effective. Consult State or Local Extension personnel for such information.

Foliage Treatment With Ground Equipment
High Volume Foliage Treatment
For control of woody plants, use Element 3A at the rate of 3 to 9 lb ae of triclopyr (1 to 3 gallons of Element 3A) per 100 gallons of spray solution, or Element 3A at 3/4 to 3 lb ae of triclopyr (1 to 4 quarts of Element 3A) may be tank mixed with 1/4 to 1/2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile ester or Tordon 101 Mixture and diluted to make 100 gallons of spray solution. Apply at a volume of 100 to 400 gallons of total spray per acre depending upon size and density of woody plants. Coverage should be thorough to wet all leaves, stems, and root collars. (See General Use Precautions and Restrictions.) Do not exceed maximum allowable use rates per acre (see table below). Tordon 101 Mixture is not registered for use in the states of California and Florida.

Maximum Labeled Rate versus Spray Volume per Acre

Total Spray Volume (gal/acre)	Maximum Rate of Element 3A		
	Range and Pasture Sites[1] (gal/100 gal of spray)	Forestry Sites[2] (gal/100 gal of spray)	Other Non-Cropland Sites[3] (gal/100 gal of spray)
400	Do not use	0.5	0.75
300	Do not use	0.67	1
200	Do not use	1	1.5
100	0.67	2	3
50	1.33	4	6
40	1.67	5	7.5
30	2.33	6.65	10
20	3.33	10	15
10	6.67	20	30

[1]Do not exceed the maximum use rate of 2 lb ae of triclopyr (2/3 gal of Element 3A)/acre/year.
[2]Do not exceed the maximum use rate of 6 lb ae of triclopyr (2 gal of Element 3A)/acre/year.
[3]Do not exceed the maximum use rate of 9 lb ae of triclopyr (3 gal of Element 3A)/acre/year on non-cropland use sites other than rangeland, pasture, forestry, and grazed areas.

Low Volume Foliage Treatment
To control susceptible woody plants, apply up to 15 lb ae of triclopyr (5 gallons of Element 3A) in 10 to 100 gallons of finished spray. The spray concentration of Element 3A and total spray volume per acre should be adjusted according to the size and density of target woody plants and kind of spray equipment used. With low volume sprays, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars (see General Use Precautions and Restrictions). For best results, a surfactant should be added to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a truck mounted spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush.

Tank Mixing: As a low volume foliar spray, up to 9 lb ae of triclopyr (3 gallons of Element 3A) may be applied in tank mix combination with 1/2 to 1 gallon of Tordon K or 1 to 2 gallons of Tordon 101 Mixture in 10 to 100 gallons of finished spray. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

Broadcast Applications With Ground Equipment
Apply using equipment that will assure uniform coverage of the spray volumes applied. To improve spray coverage, add an agriculturally labeled non-ionic surfactant as described later under Directions for Use. See Maximum Labeled Rate versus Spray Volume per Acre table above for relationship between mixing rate, spray volume and maximum application rate.

Woody Plant Control
Foliage Treatment: Use 6 to 9 lb ae of triclopyr (2 to 3 gallons of Element 3A) in enough water to make 20 to 100 gallons of total spray per acre or 1 1/2 to 3 lb ae of triclopyr (1/2 to 1 gallon of Element 3A) may be combined with 1 to 2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile esters or Tordon 101 Mixture in sufficient water to make 20 to 100 gallons of total spray per acre. Tordon 101 Mixture is not registered for use in the states of California and Florida.

Broadleaf Weed Control
Use Element 3A at rates of 1 to 4 1/2 lb ae of triclopyr (1/3 to 1 1/2 gallons of Element 3A) in a total volume of 20 to 100 gallons of water per acre. Apply any time during the growing season. Element 3A at 1 to 3 lb ae of triclopyr (1/3 to 1 gallon of Element 3A) may be tank mixed with 1/2 to 1 gallon of Tordon K, Tordon 101 Mixture or 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile herbicides to improve the spectrum of activity. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

Aerial Application (Helicopter Only)
Aerial sprays should be applied using suitable drift control. (See General Use Precautions and Restrictions.) Add an agriculturally labeled non-ionic surfactant as described under Directions for Use. See Maximum Labeled Rate versus Spray Volume per Acre table above for relationship between mixing rate, spray volume and maximum application rate.

Foliage Treatment (Non-Grazed Rights-of-Way)
Non-grazed areas: Use 6 to 9 lb ae of triclopyr (2 to 3 gallons of Element 3A) or 3 to 4 1/2 lb ae of triclopyr (1 to 1 1/2 gallons of

Element 3A) in a tank mix combination with 1 to 2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile esters or Tordon 101 Mixture, and apply in a total spray volume of 10 to 30 gallons per acre. Use the higher rates and volumes when plants are dense or under drought conditions. Tordon 101 Mixture is not registered for use in the states of California and Florida.

Interspersed areas in non-grazed rights-of-ways that may be subject to grazing may be spot treated if the treated area comprises no more than 10% of the total grazable area.

Cut Surface Treatments
Individual plant treatments such as basal bark and cut surface applications may be used on any use site listed on this label at a maximum use rate of 2.67 gallons of Element 3A (8 lb ae of triclopyr) per acre. These types of applications are made directly to ungrazed parts of plants and, therefore, are not restricted by the grazing maximum rate of 2/3 of a gallon of Element 3A (2 lb ae of triclopyr) per acre.

To control unwanted trees of hardwood species such as elm, maple, oak and conifers in labeled sites, apply Element 3A, either undiluted or diluted in a 1 to 1 ratio with water, as directed below.

With Tree Injector Method
Apply by injecting 1/2 milliliter of undiluted Element 3A or 1 milliliter of the diluted solution through the bark at intervals of 3 to 4 inches between centers of the injector wound. The injections should completely surround the tree at any convenient height. **Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is injected directly into plants.**

With Hack and Squirt Method
Make cuts around the tree trunk at a convenient height with a hatchet or similar equipment so that the cuts overlap slightly and make a continuous circle around the trunk. Spray 1/2 milliliter of undiluted Element 3A or 1 milliliter of the diluted solution into the pocket created between the bark and the inner stem/trunk by each cut.

With Frill or Girdle Method
Make a single girdle through the bark completely around the tree at a convenient height. The frill should allow for the herbicide to remain next to the inner stem and absorb into the plant. Wet the cut surface with undiluted or diluted solution.

Both of the above methods may be used successfully at any season except during periods of heavy sap flow of certain species - for example, maples.

Stump Treatment
Spray or paint the cut surfaces of freshly cut stumps and stubs with undiluted Element 3A. The cambium area next to the bark is the most vital area to wet.

Forest Management Applications
For best control from broadcast applications of Element 3A, use a spray volume which will provide thorough plant coverage. Recommended spray volumes are usually 10 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. To improve spray coverage of spray volumes less than 50 gallons per acre, add an agriculturally labeled non-ionic surfactant as described under Directions for Use. Application systems should be used to prevent hazardous drift to off-target sites. Nozzles or additives that produce larger droplets of spray may require higher spray volumes to maintain brush control.

Forest Site Preparation (Not for Conifer Release)
Use up to 6 lb ae of triclopyr (2 gallons of Element 3A) and apply in a total spray volume of 10 to 30 gallons per acre or Element 3A at 3 to 4 1/2 lb ae of triclopyr (1 to 1 1/2 gallons of Element 3A) may be used with 1 to 2 gallons of Tordon 101 Mixture or 2,4-D 3.8 lb low volatile ester in a tank mix combination in a total spray volume of 10 to 30 gallons per acre. Use a non-ionic agricultural surfactant for all foliar applications as described under Directions for Use. Tordon 101 Mixture is not registered for use in the states of California and Florida.

Note: Conifers planted sooner than one month after treatment with Element 3A at less than 4 lb ae of triclopyr (1 1/3 gallons of Element 3A) per acre or sooner than two months after treatment at 4 to 9 lb ae of triclopyr (1 1/3 to 3 gallons of Element 3A) per acre may be injured. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture should be consulted and the longest recommended waiting period before planting observed.

Directed Spray Applications for Conifer Release
To release conifers from competing hardwoods such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, hickory, alder, birch, aspen, and pin cherry, mix 3 to 6 lb ae of triclopyr (1 to 2 gallons of Element 3A) in enough water to make 100 gallons of spray mixture. To improve spray coverage, add an agriculturally labeled non-ionic surfactant as described under Directions for Use. The spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration. The majority of treated hardwoods should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray away from contact with conifer foliage, particularly foliage of desirable pines.

Note: Spray may cause temporary damage and growth suppression where contact with conifers occurs; however, injured conifers should recover and grow normally. Over-the-top spray applications can kill pines.

Broadcast Applications for Conifer Release in the Northeastern United States
To release spruce, fir, red pine and white pine from competing hardwoods, such as red maple, sugar maple, striped maple, alder, birch (white, yellow or gray), aspen, ash, pin cherry and *Rubus* spp. and perennial and annual broadleaf weeds, use Element 3A at rates of 1 1/2 to 3 lb ae of triclopyr (2 to 4 quarts of Element 3A) per acre alone or with 2,4-D amine, like DMA 4 IVM, or 2,4-D ester to provide no more than 4 lb ae per acre from both products. Apply in late summer or early fall after conifers have formed their over wintering buds and hardwoods are in full leaf and prior to autumn coloration.

Broadcast Applications for Douglas-Fir Release in the Pacific Northwest and California
To release Douglas-fir from susceptible competing vegetation such as broadleaf weeds, alder, blackberry or Scotch broom, apply Element 3A at 1 to 1 1/2 lb ae of triclopyr (1 1/3 to 2 quarts of Element 3A) per acre alone or in combination with 4 lb per acre of atrazine. Mix all sprays in a water carrier with a non-ionic surfactant. Apply in early spring after hardwoods begin growth and before Douglas fir bud break ("early foliar" hardwood stage) or after Douglas fir seasonal growth has "hardened off" (set winter buds) in late summer, but while hardwoods are still actively growing. When treating after Douglas fir bud set, apply prior to onset of autumn coloration in hardwood foliage. **Note:** Treatments applied during active Douglas fir shoot growth (after spring bud break and prior to bud set) may cause injury to Douglas fir trees.

Christmas Tree Plantations

Use Element 3A for the control of woody plants and annual and perennial broadleaf weeds in established Christmas tree plantations. For best results, apply when woody plants and weeds are actively growing. Element 3A does not control weeds which have not emerged at the time of application. If lower rates are used on hard to control woody species, resprouting may occur the year following treatment. Brush over 8 feet tall is difficult to treat efficiently using hand equipment such as backpack or knapsack sprayers. When treating large brush or trees or hard to control species such as ash, blackgum, choke cherry, elm, hazel, madrone, maples, oaks or sweetgum, and for applications made during drought conditions or in late summer when the leaves are mature, use the higher rates of Element 3A or use cut surface application methods. For foliar applications, apply in enough water to give uniform and complete coverage of the plants to be controlled. Applications made under drought conditions may provide less than desirable results.

Use Precautions:
- Do not use on newly seeded grass until well established as indicated by vigorous growth and development of secondary root system and tillering
- Newly seeded turf (alleyways, etc.) should be mowed two or three times before any treatment with Element 3A.
- Do not reseed Christmas tree areas treated with Element 3A for a minimum of three weeks after application.
- Do not use Element 3A if legumes, such as clover, are present and injury cannot be tolerated.

Spray Preparation
The order of addition to the spray tank is water, drift control agent (if used), non-ionic agricultural surfactant and Element 3A. Continue moderate agitation while mixing and spraying. Use a non-ionic agricultural surfactant for all applications. When using surfactants, follow use directions and precautions listed on the manufacturer's label. Use the higher recommended concentrations of surfactant in the spray mixture when applying lower spray volumes per acre. **Note:** If tank mixing with Rodeo herbicide, mix the Element 3A with at least 75% of the total spray volume desired and ensure that Element 3A is well mixed before adding the Rodeo to avoid incompatibility.

Application
Apply in late summer or early autumn after terminal growth of Christmas trees has hardened of, but before leaf drop of, target weeds. Apply at a rate of 3/4 to 1 3/4 lb ae of triclopyr (2 to 5 pints of Element 3A) per acre as a foliar spray directed toward the base of Christmas trees. Use sufficient spray volume to provide uniform coverage of target plants (20 to 100 gallons per acre). **Do not apply with 2,4-D.** Application rates of Element 3A recommended for Christmas trees will only suppress some well established woody plants that are greater than 2 to 3 years old (see

table below). Broadcast sprays may also be applied in bands between the rows of planted trees. Use spray equipment that will assure uniform coverage of the desired spray volume.

Spray solution from Element 3A can cause needle and branch injury to Christmas trees. To minimize injury to Christmas trees, direct sprays so as to minimize contact with foliage. Blue spruce, white spruce, balsam fir and Frasier fir are less susceptible to injury than white pine and Douglas fir.

Restriction: Apply Element 3A only to established Christmas trees that were planted at least one full year prior to application.

Application Rates and Species Controlled:

Element 3A		
2 pints/acre (3/4 lb ae of triclopyr)	3 to 4 pints/acre (1 1/2 lb ae of triclopyr)	5 pints/acre (1 3/4 lb ae of triclopyr)
clover dandelion dock, curly lambsquarters lespedeza plantain, broadleaf plantain, buckhorn ragweed, common vetch	bindweed, field (TG) blackberry[1] chicory (s) fireweed ivy, ground lettuce, wild oxalis poison ivy smartweed (TG) thistle, Canada (TG) violet, wild Virginia creeper[1]	arrowwood (SDL) aspen beech (SDL) birch (SDL) chinquapin cottonwood (SDL) elderberry grape, wild mulberry (SDL) poplar (SDL) sassafras (SDL) sumac (SDL) sycamore (SDL)

(TG) Top growth control, retreatment may be necessary
(S) Suppression
(SDL) Seedlings less than 2 to 3 years old
[1]Use 4 pint per acre rate

Directed Applications
To control hardwoods such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, alder, birch, aspen, and pin cherry, mix 4 to 20 fl oz of Element 3A in enough water to make 3 gallons of spray mixture. For directed applications, do not exceed 6 lb ae of triclopyr (2 gallons of Element 3A) per acre per year. To improve coverage, add a non-ionic agricultural surfactant to the spray. This spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration (when plants are actively growing). The majority of treated hardwoods should be less than 8 feet in height to ensure adequate spray coverage. **Note:** To prevent Christmas tree injury, care should be taken to direct spray away from contact with Christmas tree foliage.

Cut Surface Treatments
When treating large brush or trees or hard to control species such as ash, blackgum, choke cherry, elm, hazel, madrone, maples, oaks, salt cedar or sweetgum, and for applications made during drought conditions or in late summer when the leaves are mature, use cut surface treatments. (See directions for Cut Surface Treatments in preceding section of this label.)

Wetland Sites in Forests and Non-Crop Areas

Element 3A may be used within forests and non-crop sites to control target vegetation in and around standing water sites, such as marshes, wetlands, and the banks of ponds and lakes and transition areas between upland and lowland sites.

For control of woody plants and broadleaf weeds in these sites, follow use directions and application methods on this label for forestry and non-cropland sites.

Use Precautions:
Minimize overspray to open water when treating target vegetation in and around non-flowing, quiescent or transient water. When making applications to control unwanted plants on banks or shorelines of flowing water, minimize overspray to open water. **Note:** Consult local public water control authorities before applying this product in and around public water. Permits may be required to treat such areas.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

Produced for
Dow AgroSciences LLC
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Indianapolis, IN 46268

Label Code: D02-338-003
Replaces Label: D02-338-002
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EPA accepted 01/03/06

Revisions:

1. Revise list of use sites to add range and pasture and aquatic sites; remove "industrial" before non-crop; remove sentence: Use within production forests and industrial non-crop sites (including those listed above) may include applications to control target vegetation in and around standing water sites, such as marshes, wetlands, and the banks of ponds and lakes.
2. Add reference to New York 24(c) label
3. Remove "production" before "forests" and "industrial" before "non-crop" throughout label.
4. Use Precautions: add Note for tank mixing with Rodeo.
5. Maximum Rate table: change "rangeland" to "range"
6. Application Methods: add note for tank mixing with Rodeo.
7. Move section "Cut Surface Treatments" to be under the "Foliage Treatment (Non-Grazed Rights-of-Way" section
8. Spray Preparation: add Note for tank mixing with Rodeo

Specimen Label

ELEMENT™ 4

For the control of woody plants and annual and perennial broadleaf weeds in non-crop industrial manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, railroads, forests and in the establishment and maintenance of wildlife openings. Use on these sites may include application to grazed areas.

Active Ingredient:	
triclopyr: 3,5,6-trichloro-2- pyridinyloxyacetic acid, butoxyethyl ester	61.6%
Other Ingredients	38.4%
Total	100.0%

Contains petroleum distillates
Acid equivalent: triclopyr - 44.3% - 4 lb/gal

EPA Reg. No. 62719-40

Keep Out of Reach of Children

CAUTION PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes Moderate Eye Irritation • Harmful If Swallowed • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals

Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE)

Applicators and other handlers who handle this pesticide must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables are given, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

Note to Physician: This product may pose an aspiration pneumonia hazard. Contains petroleum distillates.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Physical or Chemical Hazards

Combustible. Do not use or store the product near heat or open flame.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

The requirements in this box apply to forestry uses.

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

Non-Agricultural Use Requirements

The requirements in this box apply to all use sites on this label except for forestry uses.

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications to non-cropland areas, do not allow entry into areas until sprays have dried.

Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal. Open dumping is prohibited.
Pesticide Storage: Store above 28°F or agitate before use.
Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Storage and Disposal (Cont.)

Nonrefillable containers 5 gallons or less:
Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers 5 gallons or larger:
Container Reuse: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Nonrefillable containers 5 gallons or larger:
Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

General Information

Use Element™ 4 specialty herbicide for the control of woody plants and annual and perennial broadleaf weeds in non-crop industrial manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, railroads, forests and in the establishment and maintenance of wildlife openings. Use on these sites may include application to grazed areas.

Element 4 is an oil soluble, emulsifiable liquid product containing the herbicide triclopyr. Element 4 may be applied to woody or herbaceous broadleaf plants as a foliar spray or as a basal bark or cut stump application to woody plants. As a foliar spray, Element 4 controls only herbaceous plants that have emerged from the soil or woody plants that are in full leaf at the time of application. Small amounts of Element 4 can kill or injure many broadleaf plants. To prevent damage to crops and other desirable plants, follow all directions and precautions.

General Use Precautions and Restrictions

In Arizona: The state of Arizona has not approved Element 4 for use on plants grown for commercial production; specifically forests grown for commercial timber production, or on designated grazing areas.

When applying this product in tank mix combination, follow all applicable use directions, precautions, and limitations on each manufacturer's label.

Chemigation: Do not apply this product through any type of irrigation system.

Apply no more than 1/2 gallon of Element 4 (2 lb ae of triclopyr) per acre per growing season on rights-of-way or any area where grazing or harvesting is allowed.

On forestry sites, Element 4 may be used at rates up to 6 quarts (6 lb ae of triclopyr) per acre per year.

Element 4 may be used at rates up to 8 quarts (8 lb ae of triclopyr) per acre per year on non-crop industrial manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides and railroads, fence rows, non-irrigation ditch banks. Portions of grazed areas that intersect treated non-cropland, rights-of-way and forestry sites may be treated at up to 8 lb ae per acre if the area to be treated on the day of application comprises no more than 10% of the total grazable area.

Do not apply Element 4 directly to, or otherwise permit it to come into direct contact with, cotton, grapes, peanuts, soybeans, tobacco, vegetable crops, flowers, citrus, or other desirable broadleaf plants. Do not permit spray mists containing Element 4 to drift onto such plants.

It is permissible to treat non-irrigation ditch banks, seasonally dry wetlands (such as flood plains, deltas, marshes, swamps, or bogs) and transitional areas between upland and lowland sites where surface water is not present except in isolated pockets due to uneven or unlevel conditions. Do not apply to open water (such as lakes, reservoirs, rivers, streams, creeks, salt water bays, or estuaries).

Do not apply on ditches currently being used to transport irrigation water. Do not apply where runoff or irrigation water may flow onto agricultural land as injury to crops may result.

Do not apply this product using mist blowers unless a drift control additive, high viscosity inverting system, or equivalent is used to control spray drift.

Sprays applied directly to Christmas trees may result in conifer injury. When treating unwanted vegetation in Christmas tree plantations, care should be taken to direct sprays away from conifers.

Element 4 is formulated as a low volatile ester. However, the combination of spray contact with impervious surfaces, such as roads and rocks, and increasing ambient air temperatures, may result in an increase in the volatility potential for this herbicide, increasing a risk for off-target injury to sensitive crops such as grapes and tomatoes.

Grazing and Haying Restrictions
Except for lactating dairy animals, there are no grazing restrictions following application of this product.

- **Grazing Lactating Dairy Animals:** Do not allow lactating dairy animals to graze treated areas until the next growing season following application of this product.
- Do not harvest hay for 14 days after application.
- Portions of grazed areas that intersect treated non-cropland, rights-of-way and forestry sites may be treated at up to 8 lb ae per acre if the area to be treated on the day of application comprises no more than 10% of the total grazable area.

Slaughter Restrictions: During the season of application, withdraw livestock from grazing treated grass at least 3 days before slaughter.

Avoiding Injurious Spray Drift
Make applications only when there is little or no hazard from spray drift. Small quantities of spray, which may not be visible, may seriously injure susceptible plants. Do not spray when wind is blowing toward susceptible crops or ornamental plants that are near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movement, lapse conditions, or temperature inversions (stable air). If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

Aerial Application: Element 4 may be aerially applied by fixed wing aircraft or helicopter. For aerial application on rights-of-way or other areas near susceptible crops, apply through a Microfoil† or Thru-Valve boom†, or use an agriculturally labeled drift control additive. Other drift reducing systems or thickened sprays prepared by using high viscosity inverting systems may be used if they are made as drift-free as mixtures containing agriculturally labeled thickening agents or applications made with the Microfoil or Thru Valve boom. Do not use a thickening agent with the Microfoil or Thru Valve booms, or other systems that cannot accommodate thick sprays. Spray only when the wind velocity is low (follow state regulations). Avoid application during air inversions. If a spray thickening agent is used, follow all use recommendations and precautions on the product label.

† Reference within this label to a particular piece of equipment produced by or available from other parties is provided without consideration for use by the reader at its discretion and subject to the reader's independent circumstances, evaluation, and expertise. Such reference by Dow AgroSciences is not intended as an endorsement of such equipment, shall not constitute a warranty (express or implied) of such equipment, and is not intended to imply that other equipment is not available and equally suitable. Any discussion of methods of use of such equipment does not imply that the reader should use the equipment other than is advised in directions available from the equipment's manufacturer. The reader is responsible for exercising its own judgment and expertise, or consulting with sources other than Dow AgroSciences, in selecting and determining how to use its equipment.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the following Aerial Drift Reduction Advisory. [This information is advisory in nature and does not supersede mandatory label requirements.]

Aerial Drift Reduction Advisory

Information on Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produced larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length: For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height: Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Ground Equipment: To aid in reducing spray drift, Element 4 should be used in thickened (high viscosity) spray mixtures using an agriculturally labeled drift control additive, high viscosity invert system, or equivalent as directed by the manufacturer. When using a spray thickening or inverting additive, follow all use directions and precautions on the product label. With ground equipment, spray drift can be reduced by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; by keeping the operating spray pressures at the lower end of the manufacturer's recommended pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when wind velocity is low. In hand-gun applications, select the minimum spray pressure that will provide adequate plant coverage (without forming a mist). Do not apply with nozzles that produce a fine droplet spray. Select nozzles and pressures which provide adequate plant coverage, but minimize the production of fine spray particles.

High Volume Leaf-Stem Treatment: To minimize spray drift, keep sprays no higher than brush tops and keep spray pressures low enough to provide coarse spray droplets. An agriculturally labeled thickening agent may be used to reduce drift.

Mixing Directions

Element 4 may be foliarly applied by diluting with water or by preparing an oil-water emulsion. For woody plant control, an oil-water emulsion performs more dependably under a broader range of conditions than a straight water dilution and is recommended for aerial applications.

Oil-Water Mixture Sprays
Prepare a premix of oil, surfactant and Element 4 in a separate container using diesel fuel, fuel oil, or kerosene plus an emulsifier such as Sponto 712 or Triton X-100. Use a jar test to check spray mix compatibility before preparing oil-water emulsion sprays in the mixing tank. Do not allow any water or mixtures containing water to get into the premix or Element 4 since a thick "invert" (water in oil) emulsion may form that will be difficult to break. Such an emulsion may also be formed if the premix or Element 4 is put into the mixing tank before the addition of water. Fill the spray tank about one-half full with water, then slowly add the premix with continuous agitation and complete filling the tank with water. Continue moderate agitation.

Ground Application: Add oil to the spray mix at a rate of 5 to 10% of the total mix, up to a maximum of 1 gallon of oil per acre, using agricultural spray emulsifiers according to mixing instructions below.

Aerial Application: Use oil and water in the spray mixture in a 1:5 ratio (1 part oil to 5 parts water), up to a maximum of 1 gallon of oil per acre according to mixing instructions below.

Oil Mixture Sprays for Basal Treatment
Prepare oil-based spray mixtures using either diesel fuel, No. 1 or No. 2 fuel oil, kerosene or a commercially available basal oil. Substitute other oils or diluents only as recommended by the oil or diluent's manufacturer. When preparing an oil mixture, read and follow the use directions and precautions on the manufacturer's product label. Add Element 4 to the required amount of oil in the spray tank or mixing tank and mix thoroughly. If the mixture stands over 4 hours, reagitation is required.

Oil Mixtures of Element 4 and Tordon K: Tordon K and Element 4 may be used in tank mix combination for basal bark treatment of woody plants. These herbicides are incompatible and will not form a stable mixture when mixed together directly in oil. Make a stable tank mixture for basal bark application by first combining each product with a compatibility agent prior to final mixing in the desired ratio. (See product bulletin for mixing instructions.) Tordon K is not registered for use in the states of California and Florida.

Water Dilutions
For water dilutions, an agricultural surfactant at the manufacturer's recommended rate may be added to the spray mixture to provide improved wetting of foliage. To help minimize spray drift, a drift control and deposition aid cleared for application to growing crops is recommended.

Tank Mixing
Element 4 may be applied in tank mix combination with labeled rates of other herbicides provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product. When tank mixing Element 4 with other materials, a compatibility test (jar test) using relative proportions of the tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. Use a clear glass quart jar with lid and mix the tank mix ingredients in the required order and their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Mixing Order for Tank Mixes: Add one-half of the needed water to the mixing tank and start agitation. Add different materials in the order indicated below, allowing time for complete dispersion and mixing after addition of each product.

1. Water soluble herbicide (if used)
2. Premix of oil, emulsifier, Element 4 and other oil-soluble herbicide (if used); see below

Add the remaining water. During the final filling of the tank, add a drift control and deposition aid cleared for application to growing crops (if used), plus an agricultural surfactant (if a water dilution rather than an oil-water emulsion spray is used). Maintain continuous agitation of the spray mixture during mixing, final filling and throughout application to ensure spray uniformity.

Premixing: Prepare a premix of oil, emulsifier (if oil-water emulsion), and Element 4 plus other oil-soluble herbicide (if used), e.g., 2,4-D ester. **Note:** Do not allow water or mixtures containing water to get into the premix or Element 4 since a thick "invert" (water in oil) emulsion may form that will be difficult to break. Such an emulsion may also be formed if the premix or Element 4 is put into the mixing tank before the addition of water.

Tank Mixing Precautions:

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed recommended application rates. If products containing the same active ingredient are tank mixed, do not exceed the maximum allowable active ingredient use rates.
- For direct injection or other spray equipment where the product formulations will be mixed in undiluted form, special care should be taken to ensure tank mix compatibility.
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Mixing with Liquid Fertilizer for Broadleaf Weed Control
Element 4 may be tank mixed with liquid nitrogen fertilizer and foliarly applied for weed control and fertilization of grass pastures. Use Element 4 in accordance with recommendations for grass pastures as given on this label. Apply at rates recommended by supplier or Extension Service Specialist. **Note:** Element 4 is not recommended for use with liquid fertilizer on woody plants (brush). Foliage burn caused by liquid fertilizer may reduce herbicide effectiveness on woody plants. Test for mixing compatibility using desired procedure and spray mix proportions in clear glass jar before mixing in spray tank. A compatibility aid such as Unite or Compex may be needed in some situations. **Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K solutions or suspensions may not be satisfactory even with the addition of compatibility aid.** Premixing Element 4 with 1 to 4 parts water may help in difficult situations.

Fill in the spray tank about half full with the liquid fertilizer, then add the herbicide with agitation and complete filling the tank with fertilizer. Apply immediately and continue agitation in the spray tank during application. **Do not store liquid fertilizer spray mixtures.** Application during very cold weather (near freezing) is not advisable. The likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions.

Note: Do not use spray equipment for other applications to land planted, or to be planted, to susceptible crops or desirable plants **unless** it has been determined that all phytotoxic herbicide residue has been removed by thoroughly cleaning the equipment.

Plants Controlled by Element 4

Woody Plant Species

alder
arrowwood
ash
aspen
bear clover (bearmat)
beech
birch
blackberry
blackbrush
blackgum
boxelder[1]
Brazilian pepper
buckthorn
cascara
ceanothus
cherry[3]
chinquapin
choke cherry
cottonwood
crataegus (hawthorn)
dogwood
Douglas-fir
elderberry
elm (except winged elm)
gallberry
gorse
granjeno
guajillo
guava[3]
hazel
hickory
hornbeam
huisache (suppression)
kudzu[2]
locust
madrone
maple (except bigleaf, vine[3])
milkweed vine[3]
mulberry
oaks
osage orange
pepper vine[3]
persimmon, eastern
pine
poison ivy
poison oak
poplar
salmonberry
saltbush (*Braccharis* spp.)[3]
salt cedar[1]
sassafras
scotch broom
sumac
sweetbay magnolia
sweetgum
sycamore
tanoak
thimbleberry
tree-of-heaven (*Ailanthus*)[1]
trumpet creeper[3]
tulip poplar
twisted acacia
Virginia creeper[3]
wax myrtle (top growth)
wild rose
willow
willow primrose
winged elm

[1]For best control, use either a basal bark or cut stump treatment.
[2]For complete control, re-treatment may be necessary.
[3]Basal or dormant stem applications only.

Annual, Biennial and Perennial Broadleaf Weeds

Note: Numbers in parentheses refer to footnotes below table.

black medic
bull thistle
burdock
Canada thistle
chicory
cinquefoil
clover
creeping beggarweed
curly dock
dandelion (top growth)
dogfennel
field bindweed
goldenrod
ground ivy
lambsquarters
lespedeza
matchweed
mustard
Oxalis
plantain
purple loosestrife
ragweed
sericea lespedeza (1)
smartweed
sulfur cinquefoil (2)
sweet clover
tropical soda apple (3)
vetch
wild carrot (Queen Anne's lace)
wild lettuce
wild violet
yarrow

1. **Sericea lespedeza:** Apply 1 to 2 pints of Element 4 per acre. For best results, apply after maximum foliage development in the late spring to early summer, but prior to bloom.
2. **Sulfur cinquefoil:** Apply 1 to 2 pints of Element 4 per acre. For best results, apply to plants in the rosette stage.
3. **Tropical soda apple:** Apply 2 pints of Element 4 per acre when tropical soda apple plants reach the first flower stage. For best results, apply in a total spray volume of 40 gallons per acre using ground equipment. An agricultural surfactant may be added at the manufacturer's recommended rate to provide more complete wetting and coverage of the foliage. Spot treatments may be used to control sparse plant stands. For spot treatment use a 1 to 1.5% solution of Element 4 in water (1 to 1 1/2 gallons of Element 4 in 100 gallons total spray mixture) and spray the entire plant to completely wet the foliage. **In Florida**, control of tropical soda apple may be improved by using the following management practices:

- Mow plants to a height of 3 inches every 50 to 60 days or whenever they reach flowering. Continue the mowing operation through April.
- In late May to June (50 to 60 days after the April mowing), apply Element 4 as a broadcast treatment.
- Use spot treatment to control any remaining plants or thin stands of plants that germinate following a broadcast treatment.

Application Methods

Use Element 4 at rates of 1 to 8 quarts per acre to control broadleaf weeds and woody plants. It is suggested that rates higher in this rate range be used to control woody plants. In all cases, use the amount specified in enough water to give uniform and complete coverage of the plants to be controlled. The order of addition to the spray tank is water, spray thickening agent (if used), surfactant (if used), additional herbicide (if used), and Element 4. If a standard agricultural surfactant is used, use at a rate of 1 to 2 quarts per acre. Use continuous adequate agitation.

Before using any recommended tank mixtures, read the directions and all precautions on both labels.

For best results apply when woody plants and weeds are actively growing. When hard to control species such as ash, blackgum, choke cherry, elm, maples (other than vine or big leaf), oaks, pines, or winged elm are prevalent, during applications made during late summer when the plants are mature, or during drought conditions, use the higher rates of Element 4 alone or in combination with Tordon® 101 Mixture specialty herbicide or Tordon K herbicide. Tordon 101 Mixture and Tordon K are restricted use pesticides. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

When using Element 4 in combination with 2,4-D low volatile ester herbicide, generally the higher rates of Element 4 should be used for satisfactory brush control.

Use the higher dosage rates when brush approaches an average of 15 feet in height or when the brush covers more than 60% of the area to be treated. If lower rates are used on hard to control species, resprouting may occur the year following treatment.

On sites where easy to control brush species dominate, rates less than those listed may be effective. Consult state or local extension personnel for such information.

Foliage Treatment With Ground Equipment

Use sufficient spray volume to completely and uniformly cover foliage. For ground application, apply 10 gallons or more of total spray volume per acre. Use higher spray volumes for ground applications to ensure adequate coverage with increased depth and density of foliage, particularly for treatment of woody plants.

High Volume Foliage Treatment

For control of woody plants, use Element 4 at the rate of 2 to 6 quarts per 100 gallons of spray mixture, or Element 4 at 2 to 4 quarts may be tank mixed with labeled rates of 2,4-D low volatile ester herbicide, Tordon 101 Mixture, or Tordon K and diluted to make 100 gallons of spray. Do not apply more than 2 gallons of Element 4 per acre. On rangeland and permanent pasture sites, make 1 application per year and apply no more than 2 quarts of Element 4 (2 lb ae of triclopyr) per acre. Apply at a volume of 100 to 400 gallons of total spray per acre depending upon size and density of woody plants. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida. When tank mixing, follow applicable use directions and precautions on each manufacturer's label.

Depending upon the size and density of the woody plants, apply sufficient spray volume to thoroughly wet all leaves, stems, and root collars. To minimize spray drift, select the minimum spray pressure that provides adequate plant coverage without forming a mist and direct sprays no higher than the top of the target plants. Use a drift control additive cleared for application to growing crops to reduce spray drift. Before using any tank mixture, read the directions and use precautions on both labels. For best results, apply when woody plants and weeds are actively growing.

Table 1: The following table is provided as a guide to the user to achieve the proper rate of Element 4.

Total Spray Volume (gallons/acre)	Rate of Element 4	
	Forestry Sites (qt/100 gallons of spray)[1]	Non-Cropland Sites (qt/100 gallons of spray)[2]
400	1.5	2
300	2	2.7
200	3	4
100	6	8
50	12	16
40	15	20
30	20	26.7
20	30	40
10	60	80

[1] Do not exceed the maximum use rate of 6 qt of Element 4 (6 lb ae of triclopyr) per acre per year.

[2] Do not exceed the maximum use rate of 8 qt of Element 4 (8 lb ae of triclopyr) per acre per year for non-grazable areas, or 2 qt (2 lb ae of triclopyr) per acre per year for grazed areas, except on portions of grazed areas that meet the following requirement. Portions of grazed areas that intersect treated non-cropland, rights-of-way and forestry sites may be treated at up to 8 lb ae per acre if the area to be treated on the day of application comprises no more than 10% of the total grazable area.

Table 2

Application Rates per 100 Gallons of Spray		
Element 4	Plus Tank Mix Product	Rate (qt)
1 - 4 qt	--	--
1 - 2 qt	Grazon® P+D specialty herbicide	4
1 - 2 pt	2,4-D low volatile ester herbicide	1 - 2
1 - 2 qt	Tordon 22K	1 - 2
2 qt	Reclaim® specialty herbicide[1,2]	2

[1] Reclaim is registered for use only in Arizona, Texas, Oklahoma and New Mexico.

[2] See directions for Mesquite Control Using High Volume Foliage Treatment below.

Mesquite Control Using High Volume Foliage Treatment: For control of mesquite infestations of low to moderate density, apply Element 4 and Reclaim in a tank mixture to individual plants with backpack or hand-held sprayers or a vehicle-mounted sprayer with hand-held spray wand or spray gun. For individual plant treatment, use 2 quarts of Element 4 in combination with 2 quarts of Reclaim per 100 gallons of total spray solution (1/2% v/v of each product). Apply in water or as an oil-water emulsion as described in Mixing Directions. If using an oil-water emulsion, add the oil at a rate of 5% of the total spray volume. Apply as a complete spray-to-wet foliar application, including all leaves. Thorough coverage is necessary for good results, but do not spray to the point of runoff. Do not apply when mesquite foliage is wet. The total amount of Element 4 applied should not exceed 1 1/3 pints per acre. For best results, follow information given elsewhere in this label concerning effect of environmental conditions and application timing on control. This application method works best for brush less than 8 feet tall since efficient treatment and thorough coverage of taller brush is difficult to achieve with this method. To minimize drift, select a spray nozzle and pressure that provides good coverage while forming a coarse spray. Additionally, drift may be reduced by using the minimum pressure necessary to obtain plant coverage without forming a mist and by directing sprays no higher than the top of target plants. If desired, a spray dye may be added to the spray mixture to mark the treated plants.

Low Volume Foliage Treatment

To control susceptible woody plants, mix up to 20 quarts of Element 4 in 10 to 100 gallons of finished spray. The spray concentration of Element 4 and total spray volume per acre should be adjusted according to the size and density of target woody plants and kind of spray equipment used. With low volume sprays, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars (see General Use Precautions and Restrictions). For best results, a surfactant should be added to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a truck mounted spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush.

Tank Mixing: As a low volume foliage spray, up to 12 quarts of Element 4 may be applied in tank mix combination with labeled rates of Tordon K or Tordon 101 Mixture in 10 to 100 gallons of finished spray. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

Broadcast Applications With Aerial or Ground Equipment

Environmental conditions and application timing influence brush and weed control results. For best results, apply when woody plants and weeds are actively growing. For woody species, apply after the rapid growth period of early spring when leaf tissue is fully expanded and terminal growth has slowed. Brush regrowth should be at least 4 ft high prior to treatment to insure adequate foliage for herbicide absorption. Adequate soil moisture before and after treatment as well as the presence of healthy foliage at the time of application are important factors contributing to optimal herbicidal activity.

Use sufficient spray volume to completely and uniformly cover foliage. For ground application, apply 10 gallons or more of total spray volume per acre. For aerial application, apply at least 2 gallons of total spray volume per acre. Use higher spray volumes for ground or aerial applications to ensure adequate coverage with increased depth and density of foliage, particularly for treatment of woody plants.

Mesquite: The herbicidal response of mesquite is strongly influenced by foliage condition, growth stage and environmental conditions. For best results, apply when new growth foliage has turned from light to dark green, when the soil temperature is above 75°F at a depth of 12 to 18 inches, and soil moisture is adequate for plant growth. Apply within 60 days after the 75ºF minimum soil temperature at the 12- to 18-inch depth has been reached. Product performance may be adversely affected if application is made before mesquite foliage has turned from light to dark green or if foliage has been injured or removed by late frost, insects, hail or plant diseases. Do not treat if mesquite exhibits new (light green) terminal growth in response to recent heavy rainfall during the growing season. Rate of soil warm-up at the 12- to 18-inch depth may vary with soil texture and drainage. Coarse-textured (sandy) soils warm up sooner than fine-textured (clay) soils and dry soils warm up more quickly than wet soils. Mesquite regrowth should be at least 4 ft high prior to treatment to insure adequate foliage for herbicide absorption.

Mesquite Only

Apply 1/2 to 1 pint of Element 4 per acre in combination with 2/3 to 1 1/3 pint per acre of Reclaim. See label for Reclaim for additional treatment recommendations and information on mesquite control. Apply aerially as an oil:water emulsion in 4 gallons or more total volume per acre or with ground equipment in 10 gallons or more total volume per acre. Use a maximum of 1 gallon of oil per acre for aerial or ground application.

Mesquite and Pricklypear Cactus

If pricklypear cactus is a target species in association with mesquite, apply a tank mix of 1/2 to 1 pint of Element 4 with 1 to 2 pints of Tordon 22K per acre. (The 2 pint per acre rate of Tordon 22K provides a higher and more uniform plant kill of pricklypear.) Tordon 22K may also be applied in combination with Reclaim to control pricklypear while providing improved control of mesquite. See labels for Tordon 22K and Reclaim for additional information and treatment recommendations. Apply aerially as an oil:water emulsion in 4 gallons or more total volume per acre or with ground equipment in 10 or gallons or more total volume per acre. If mesquite canopy is dense, use higher spray volumes. Use a maximum of 1 gallon of oil per acre for aerial or ground application.

South Texas Mixed Brush (Mesquite, Pricklypear Cactus, Blackbrush, Twisted Acacia and Granjeno)

Use 1 to 2 pints of Element 4 in a tank mix with 2 pints of Tordon 22K per acre if pricklypear is a problem, or with 2/3 to 1 1/3 pints of Reclaim per acre if mesquite is the prevalent species. Element 4 contributes to the control of non-legume species such as granjeno and oaks. However, if woody legume species are predominate, apply 2 pints of Tordon 22K per acre in combination with 2/3 to 1 1/3 pints of Reclaim per acre for improved control. See labels for Tordon 22K and Reclaim for additional information and treatment recommendations. Apply aerially in an oil:water emulsion in 4 gallons or more total volume per acre or with ground equipment in 15 gallons or more total volume per acre. Use a maximum of 1 gallon of oil per acre for aerial or ground application. The use of an oil:water emulsion is critical and good spray coverage is essential for acceptable brush control.

Sand Shinnery Oak Suppression

In Texas, New Mexico and Oklahoma, apply Element 4 alone at a rate of 1/2 to 2 pints per acre for suppression of shinnery oak growing on sandy soils. Grass response following suppression may be impressive where rainfall is adequate. Grazing deferment following application together with proper grazing management is recommended to allow for the reestablishment of grass stands.

Post Oak and Blackjack Oak - Regrowth Stands

Apply in the late spring (May) to early summer (June-July) when oak leaves are fully developed (expanded). Use 2 quarts of Element 4 alone or in tank mix combination with 0.5 to 1 pints of 2,4-D low-volatile ester herbicide per acre. Apply in an oil:water emulsion or water surfactant dilution in sufficient total volume per acre to assure thorough coverage, usually 5 gallons or more per acre by fixed-wing aircraft or helicopter or 15 to 25 gallons per acre by ground equipment. Use a maximum of 1 gallon of oil per acre for aerial or ground application. Lower rates may be used for suppression only. Control will require at least 3 consecutive treatments. **Note:** Regrowth plants have a large root mass relative to top growth when compared to undisturbed plants. In order for top growth to intercept and translocate enough herbicide to control the roots, delay broadcast treatment until top growth is at least 4 ft tall.

High Volume Foliage Treatment: For regrowth less than 4 ft tall, apply 2 quarts of Element 4 per 100 gallons of water and 2 quarts of ag surfactant alone or in tank mix combination with 1 gallon of Grazon P+D or 1 quart of Tordon 22K. Apply as a high volume leaf-stem treatment to individual plants using ground equipment.

Post Oak and Blackjack Oak - Mature Stands

For control of mature stands (greater than 5 ft tall), apply 2 quarts of Element 4 per acre in late spring (May) to early summer (June-July) when oak leaves are fully developed (expanded). Understory species such as winged elm, buckbrush, tree huckleberry and ash occurring in some areas will not be controlled (only suppressed or defoliated) by using Element 4 alone. Where these understory species occur, control may be improved by tank mixing 2 quarts of Element 4 with 1 quart of Tordon 22K or 4 quarts of Grazon P+D per acre. For best results, apply as an oil:water emulsion in a total volume of 5 gallons per acre or more by fixed-wing aircraft or helicopter.

Other Susceptible Woody Plants

Apply 2 to 4 pints of Element 4 alone or in combination with 2 to 3 quarts of 3.8 lb/gal 2,4-D low volatile ester or amine formulation per acre. If difficult to control species such as ash, choke cherry, elm, maple or oaks are prevalent, and during applications made when plants are mature late in the summer or during drought conditions, use the higher rates of Element 4, alone or with 2,4-D. Element 4 may also be applied in a tank mixture with Grazon P+D or Tordon 22K for increased control of certain species. See labels for Grazon P+D and Tordon 22K for additional information and treatment recommendations. Apply aerially in 4 gallons or more total volume per acre or with ground equipment in 10 gallons or more total volume per acre. For best results on blackberry, apply during or after bloom. For management of kudzu, apply 1 quart of Element 4 per acre. Repeat application may be necessary to achieve desired level of control.

Susceptible Broadleaf Weeds

Use 2 pints of Element 4 per acre in a water spray. Apply as a broadcast spray in a total volume of 10 gallons or more per acre by ground equipment or aerially in a total volume of 2 gallons or more per acre. Apply anytime the weeds are actively growing. Element 4 at 1/2 to 3 pints may be tank mixed with 1 to 2 quarts of 3.8 lb/gal 2,4-D amine or low volatile ester.

Woody Plant Control

Foliage Treatment: Use 4 to 8 quarts of Element 4 in enough water to make 5 gallons or more per acre of total spray, or 1 1/2 to 3 quarts of Element 4 may be combined with labeled rates of 2,4-D low volatile ester, Tordon 101 Mixture, or Tordon K in sufficient water to make 5 gallons or more per acre of total spray. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

Broadleaf Weed Control

Use Element 4 at rates of 1 to 4 quarts in a total volume of 5 gallons or more per acre as a water spray mixture. Apply anytime weeds are actively growing. Element 4 at 0.25 to 3 quarts may be tank mixed with labeled rates of 2,4-D amine or low volatile ester, Tordon K, or Tordon 101 Mixture to improve the spectrum of activity. For thickened (high viscosity) spray mixtures, Element 4 can be mixed with diesel oil or other inverting agent. When using an inverting agent, read and follow the use directions and precautions on the product label. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

Foliage Treatment (Utility and Pipeline Rights-of-Way)

Use 4 to 8 quarts of Element 4 alone, or 3 to 4 quarts of Element 4 in a tank mix combination with labeled rates of 2,4-D low volatile ester, Tordon 101 Mixture or Tordon K and apply in a total spray volume of 10 to 30 gallons per acre. Use the higher rates and volumes when plants are dense or under drought conditions. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

Portions of grazed areas that intersect treated non-cropland, rights-of-way and forestry sites may be treated at up to 8 lb ae per acre if the area to be treated on the day of application comprises no more than 10% of the total grazable area.

Basal Bark, Dormant Stem and Cut Surface Treatments

Individual plant treatments such as basal bark and cut surface applications may be used on any use site listed on this label at a maximum use rate of 8 lb ae of triclopyr per acre. These types of applications are made directly to ungrazed parts of plants and, therefore, are not restricted by the grazing maximum rate of 2 lb ae of triclopyr per acre.

Basal Bark Treatment

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 1 to 5 gallons of Element 4 in enough oil to make 100 gallons of spray mixture. Apply with knapsack sprayer or power spraying equipment using low pressure (20 to 40 psi). Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground, thoroughly wetting the indicated area. Spray until runoff at the ground line is noticeable. Old or rough bark requires more spray than smooth young bark. Apply anytime, including the winter months, except when snow or water prevent spraying to the ground line. **Mixing with oil requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

Low Volume Basal Bark Treatment

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 20 to 30 gallons of Element 4 in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground in a manner that thoroughly wets the lower stems, including the root collar area, but not to the point of runoff. Herbicide concentration should vary with size and susceptibility of species treated. Apply anytime, including the winter months, except when snow or water prevent spraying to the ground line or when stem surfaces are saturated with water. See Table 1 for relationship between mixing rate, spray volume and maximum application rate. **Note:** The addition of a soil active herbicide to a basal bark mixture with Element 4 may result in damage to surrounding non-target vegetation. Care should be taken to assess the areas in which these soil active herbicides are used in combination with Element 4 in basal bark applications. **Mixing with oil requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

Element 4 Plus Tordon K in Oil Tank Mix: Element 4 and Tordon K may be used in tank mix combination as a low volume basal bark treatment to improve control of certain woody species such as ash, elm, maple, poplar, aspen, hackberry, oak, oceanspray, birch, hickory, pine, tanoak, cherry, locust, sassafras, and multiflora rose. (See product bulletin for mixing instructions.) Tordon K is not registered for use in the states of California and Florida.

Streamline Basal Bark Treatment (Southern States)

To control or suppress susceptible woody plants for conifer release, mix 20 to 30 gallons of Element 4 in enough oil to make 100 gallons of spray mixture. Streamline basal bark treatments are most effective on stems less than 4 inches in basal diameter. Apply with a backpack or knapsack sprayer using equipment that provides a directed straight stream spray. Apply the spray in a 2- to 3-inch wide band to one side of stems less than 3 inches in basal diameter. When the optimum amount of spray mixture is applied, the treated zone should widen to encircle the stem within approximately 30 minutes. Treat both sides of stems which are 3 to 4 inches in basal diameter. Direct the spray at bark that is approximately 12 to 24 inches above ground. Pines (loblolly, slash, shortleaf, and Virginia) up to 2 inches in diameter breast height (dbh) can be controlled by directing the spray at a point approximately 4 feet above ground. Vary spray mixture concentration with size and susceptibility of the species being treated. Better control is achieved when spray is applied to thin juvenile bark and above rough thickened mature bark. This technique is not recommended for scrub and live oak species, including blackjack, turkey, post, live, bluejack and laurel oaks, or bigleaf maple.

Apply anytime, including winter months, except when snow or water prevents spraying at the desired height above ground level. **Note:** Best results with some hardwood species occur when applications are made from approximately 6 weeks prior to leaf expansion in the spring until approximately 2 months after leaf expansion is completed. **Mixing with oil requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

Low Volume Stem Bark Band Treatment (North Central and Lake States)

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 20 to 30 gallons of Element 4 in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Apply the spray in a 6- to 10-inch wide band that completely encircles the stem. Spray in a manner that completely wets the bark, but not to the point of runoff. The treatment band may be positioned at any height up to the first major branch. For best results, apply the band as low as possible. Spray mixture concentration should vary with size and susceptibility of species to be treated. Applications may be made anytime, including winter months. **Mixing with oil requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

Thinline Basal Bark Treatment

To control susceptible woody plants with stems less than 6 inches in diameter, apply Element 4, either undiluted or mixed at 50 to 75% v/v with oil, in a thin stream to all sides of the lower stems. The stream should be directed horizontally to apply a narrow band of Element 4 around each stem or clump. Use a minimum of 2 to 15 milliliters of Element 4 or oil mixture with Element 4 to treat single stems and from 25 to 100 milliliters to treat clumps of stems. Use an applicator metered or calibrated to deliver the small amounts required. **Mixing with oil requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

Dormant Stem Treatment

Dormant stem treatments control susceptible woody plants and vines with stems less than 2 inches in diameter. Plants with stems greater than 2 inches in diameter may not be controlled and resprouting may occur. This treatment method is best suited for sites with dense, small diameter brush. Dormant stem treatments of Element 4 can also be used as a chemical side-trim for controlling lateral branches of larger trees that encroach onto roadside, utility, or other rights-of-way.

Mix 4 to 8 quarts of Element 4 in 2 to 3 gallons of crop oil concentrate or other recommended oil and add this mixture in enough water to make 100 gallons of spray solution. Use continuous adequate agitation. Apply with knapsack or power spraying equipment, using low pressure (20 to 40 psi). In western states, apply anytime after woody plants are dormant and most of the foliage has dropped. In other areas apply anytime within 10 weeks of budbreak, generally February through April. Thoroughly wet the upper parts of the stems and use the remainder to wet the lower 12 to 15 inches above the ground to the point of runoff. For root suckering species such as sumac, sassafras and locust, also spray the ground under the plant to cover small root suckers which may not be visible above the soild surface. For oil-water mixture application, mix 6 quarts of Element 4, 25 gallons of oil and 1.5 gallons of an approved agricultural spray emulsifier such as Sponto 712 or Triton X-100 as indicated in the mixing directions. Treat as above. Element 4 may be mixed with 4 quarts of Weedone 170 herbicide to improve the control of black cherry and broaden the spectrum of herbicidal activity. Do not apply to wet or saturated bark as poor control may result.

Cut Stump Treatment

To control resprouting, mix 20 to 30 gallons of Element 4 in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressures and a solid cone or flat fan nozzle. Spray the root collar area, sides of the stump, and the outer portion of the cut surface, including the cambium, until thoroughly wet, but not to the point of runoff. Spray mixture concentration should vary with the size and susceptibility of species treated. Apply anytime, including in winter months, except when snow or water prevent spraying to the ground line. **Mixing with oil requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

Cut Stump Treatment in Western States

To control resprouting of salt cedar and other *Tamarix* species, bigleaf maple, tanoak, Oregon myrtle, and other susceptible species, apply undiluted Element 4 to wet the cambium and adjacent wood around the entire circumference of the cut stump. Treatments may be applied throughout the year; however, control may be reduced with treatment during periods of moisture stress as in late summer. Cut stumps so that they are approximately level to facilitate uniform coverage of Element 4. Use an applicator which can be calibrated to deliver the small amounts of material required.

Growing Point and Leaf Base (Crown) Treatment of Yucca

Prepare a 2% v/v solution of Element 4 in diesel or fuel oil (13 fl oz of Element 4 in 5 gallons of spray mixture). Thoroughly wet the center of the plant including growing point and leaf bases to the soil surface. Complete coverage of leaves is not necessary.

Forest Management Applications

For broadcast applications, apply 1 to 6 quarts of Element 4 per acre in a total spray volume of 5 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. Use spray volumes sufficient to provide thorough coverage of treated foliage. Nozzles or additives that produce larger droplets of spray may require higher spray volumes to provide adequate coverage.

Plant Back Interval for Conifers: Conifers planted sooner than 1 month after treatment with Element 4 at less than 4 quarts per acre or sooner than 2 months after treatment at 4 to 6 quarts per acre may be injured. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture should be consulted and the longest recommended waiting period before planting observed.

Forest Site Preparation (Not for Conifer Release)

Southern States Including Alabama, Arkansas, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia: To control susceptible woody plants and broadleaf weeds, apply Element 4 at a rate of 4 to 6 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 2 to 4 quarts of Element 4 per acre in tank mix combination with labeled rates of Tordon 101 Mixture or Tordon K. Tordon 101 Mixture and Tordon K are not registered for use in the state of Florida. Where grass control is also desired, Element 4, alone or in tank mix combination with Tordon K or Tordon 101 Mixture, may be applied with labeled rates of other herbicides registered for grass control in forests. Use of tank mix products must be in accordance with the most restrictive of label limitations and precautions. Do not exceed labeled application rates. Element 4 cannot be tank mixed with any product containing a label prohibition against such mixing.

Western, Northeastern, North Central, and Lake States (States not Listed Above as Southern States): To control susceptible woody plants and broadleaf weeds, apply Element 4 at a rate of 3 to 6 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 1.5 to 3 quarts of Element 4 per acre in tank mix combination with labeled rates of Tordon 101 Mixture, Tordon K, or 2,4-D low volatile ester. Tordon 101 Mixture and Tordon K are not registered for use in the state of California. Where grass control is also desired, Element 4, alone or in tank mix combination with Tordon 101 Mixture or Tordon K, may be applied with labeled rates of other herbicides registered for grass control in forests. When applying tank mixes, follow applicable use directions and precautions on each product label.

Southern Coastal Flatwoods: To control susceptible broadleaf weeds and woody species such as gallberry and wax-myrtle, and for partial control of saw-palmetto, apply 2 to 4 quarts of Element 4 per acre. To broaden the spectrum of species controlled to include fetterbush, staggerbush, titi, and grasses, apply 2 to 3 quarts of Element 4 per acre in tank mix combination with labeled rates of Arsenal Applicator's Concentrate herbicide. Where control of gallberry, wax-myrtle, broadleaf weeds, and grasses is desired, apply 2 to 3 quarts of Element 4 per acre in tank mix combination with labeled rates of Accord Concentrate or Accord SP herbicide.

These treatments may be broadcast during site preparation of flat planted or bedded sites or, on bedded sites, applied in bands over the top of beds. For best results, apply in late summer or fall. Efficacy may not be satisfactory when applications are made in early season prior to August. **Note:** Do not apply after planting pines.

Directed Spray Applications for Conifer Release

To release conifers from competing hardwoods and brush such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, hickory, alder, birch, aspen, pin cherry, *Ceanothus* spp., blackberry, chinquapin, and poison oak, mix 4 to 20 quarts of Element 4 in enough water to make 100 gallons of spray mixture. This spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent anytime after the hardwoods and brush have reached full leaf size, but before autumn coloration. The majority of treated hardwoods and brush should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray away from contact with conifer foliage, particularly foliage of desirable pines. See Table 1 for relationship between mixing rate, spray volume and maximum application rate.

Note: Spray may cause temporary damage and growth suppression where contact with conifers occurs; however, injured conifers should recover and grow normally. Over-the-top spray applications can kill pines.

Broadcast Applications for Mid-Rotation Understory Brush Control in Southern Coastal Flatwoods Pine Stands (Ground Equipment Only)

For control of susceptible species such as gallberry and wax-myrtle and broadleaf weeds, apply 2 to 4 quarts of Element 4 per acre. To broaden the spectrum of woody plants controlled to include fetterbush, staggerbush, and titi, apply 2 to 3 quarts of Element 4 per acre in tank mix combination with labeled rates of Arsenal Applicator's Concentrate.

Saw-palmetto will be partially controlled by use of Element 4 at 4 quarts per acre or by mixtures of Element 4 at 2 to 3 quarts per acre in tank mix combination with either Arsenal Applicator's Concentrate or Escort herbicide. These mixtures should be broadcast applied over target understory brush species, **but to prevent injury to pines, make applications underneath the foliage of pines.** Apply sprays in 30 gallons or more per acre of total volume. For best results, apply in late summer or fall. Efficacy may not be satisfactory when applications are made in early season prior to August.

Broadcast Applications for Conifer Release in the Pacific Northwest and California

Dormant Conifers Before Bud Swell (Excluding Pines): To control or suppress deciduous hardwoods such as vine maple, bigleaf maple, alder, scotch broom, or willow **before leaf-out**, or evergreen hardwoods such as madrone, chinquapin, and *Ceanothus* spp., use Element 4 at 1 to 2 quarts per acre. Use diesel or fuel oil as a diluent, or use water plus 1 to 2 gallons per acre of diesel oil or a suitable surfactant or oil substitute at manufacturer's recommended rates. **Mixing with oil as the only diluent requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

Conifer Plantations (Excluding Pines) After Hardwoods Begin Growth and Before Conifer Bud Break ("Early Foliar" Hardwood Stage): Use Element 4 at 1 to 1.5 quarts alone or with 2,4-D low volatile ester herbicide in water carrier to provide no more than 3 lb ae per acre from both products. After conifer bud break, these sprays may cause more serious injury to the crop trees. Use of a surfactant may cause unacceptable injury to conifers especially after bud break.

Conifer Plantations (Excluding Pines) After Conifers Harden Off in Late Summer and While Hardwoods are Still Actively Growing: Use Element 4 at rates of 1 to 1.5 quarts per acre alone or with 2,4-D low volatile ester to provide no more than 3 lb ae per acre from both products. Treat as soon after conifer bud hardening as possible so that hardwoods and brush are actively growing. Use of oil, oil substitute, or surfactant may cause unacceptable injury to the conifers.

Broadcast Applications for Conifer Release in the Eastern United States

To release spruce, fir, red pine, and white pine from competing hardwoods such as red maple, sugar maple, striped maple, alder, birch (white, yellow, and grey), aspen, ash, pin cherry, and *Rubus* spp. and perennial and annual broadleaf weeds, use Element 4 at rates of 1.5 to 3 quarts per acre alone or with 2,4-D amine or low volatile ester to provide no more than 4 lb ae per acre from both products. Apply in late summer or early fall after conifers have formed their overwintering buds and hardwoods are in full leaf and prior to autumn coloration.

Broadcast Applications for Conifer Release in the Lake States Region

To release spruce, fir, and red pine from competing hardwoods such as aspen, birch, maple, cherry, willow, oak, hazel, and *Rubus* spp. and perennial and annual broadleaf weeds, use Element 4 at rates of 1.5 to 3 quarts per acre. Apply in late summer or early fall after conifers have formed their overwintering buds and hardwoods are in full leaf and prior to autumn coloration.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent permitted by law, Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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EPA accepted 04/18/07

VegetationManager®

DIURON 80 DF

DRY FLOWABLE HERBICIDE

SPECIMEN LABEL

FOR CONTROL OF MANY ANNUAL AND PERENNIAL GRASSES AND HERBACEOUS WEEDS

ACTIVE INGREDIENT:	% BY WT.
Diuron: 3-(3,4-dichlorophenyl)-1,1-dimethylurea	80.0%
INERT INGREDIENTS:	20.0%
TOTAL	100.0%

EPA Reg. No. 66222-51-74477 EPA Est. No. 11603-ISR-001

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. • **DO NOT** give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Loaders, applicators, and other handlers must wear:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category *A* on an EPA chemical resistance category selection chart.

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinylchloride
- Dust/mist respirator
- Shoes plus socks

Mixers and loaders must also wear:

- Apron

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water by cleaning of equipment or disposal of wastes. **DO NOT** apply when weather conditions favor drift from areas treated. Cover or incorporate spills.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinylchloride
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Non-crop weed control is not within the scope of the Worker Protection Standard. Keep unprotected persons out of treated areas until sprays have dried.

IMPORTANT: Read the entire DIRECTIONS FOR USE and the WARRANTY STATEMENT before using this product. If terms are not acceptable, return the unopened product container to the place of purchase at once. Diuron 80 DF herbicide should be used only in accordance with recommendations on this label or in separate published recommendations. Vegetation Management, LLC will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by Vegetation Management, LLC. User assumes all risk associated with non-recommended use.

GENERAL INFORMATION

Diuron 80 DF is a dispersible granule to be mixed with water and applied as a spray for selective control of weeds in certain crops and for non-selective weed control on non-cropland areas. It is non-corrosive to equipment, non-flammable, and non-volatile.

Diuron 80 DF may be applied to soil prior to emergence of weeds to control susceptible weed seedlings for an extended period of time. The degree of control and duration of effect will vary with the amount of chemical applied, soil texture, rainfall, and other conditions. Soils high in clay or organic matter require higher dosages than soils low in clay or organic matter for equivalent herbicide performance. Moisture is required to activate the herbicide. Best results occur if rainfall (or sprinkler irrigation) occurs within 2 weeks of application.

Diuron 80 DF applied before emergence of crop and weeds is an effective procedure because susceptible weeds are controlled in an early, vulnerable seedling stage before they compete with the crop. With favorable moisture conditions, Diuron 80 DF continues to control weeds for some time as the crop becomes better able to compete. Should weed seedlings begin to break through the preemergence treatment in significant numbers, secondary weed control procedures should be implemented; these include cultivation and postemergence herbicide application.

Diuron 80 DF may also be used to control emerged weeds. Results vary with rate applied and environmental conditions. Best results are obtained on succulent weeds growing under conditions of high humidity and temperature of 70°F or higher. Addition of a surfactant to the spray (where recommended) increases contact effects of Diuron 80 DF.

Diuron 80 DF may be used as a directed postemergence application. Contact of crop foliage and/or fruit with spray or mist must be avoided on the following crops: artichoke, corn (field), cotton, sorghum (grain), sugarcane, and established plantings of apples, bananas, plantains, blueberries, caneberries, gooseberries, citrus, grapes, macadamia nuts, olives, papayas, peaches, pears, pecans, walnuts, and certain tree plantings as injury may occur.

Under specified conditions (see RECOMMENDED USES), Diuron 80 DF without surfactant may be applied over the top of alfalfa (established, dormant, or semi dormant), asparagus (established), birdsfoot trefoil (established, dormant), grass seed crops (established), oats, red clover (established, dormant), sugarcane, wheat, and pineapple.

Weed species vary in susceptibility to Diuron 80 DF and they may be more difficult to control when under stress. Combinations of Diuron 80 DF with other herbicides (as registered) increase the number of weed species controlled. Consult labels of the companion product for this and other information. Observe all precautions and limitations on labeling of all products used in mixtures.

Since the effect of Diuron 80 DF varies with soils, uniformity of application, and environmental conditions, it is suggested that growers limit their first use to small areas.

IMPORTANT USE PRECAUTIONS:

Injury to or loss of desirable trees or other plants may result from failure to observe the following: Draining or flushing equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots may injure these plants. **DO NOT** use on home plantings of trees, shrubs, or herbaceous plants or lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of dry powder or spray to desirable plants. **DO NOT** contaminate any body of water. **DO NOT** mix/load or use near wells including abandoned wells, drainage wells, and sink holes. Avoid storage of pesticides near well sites. Calibrate sprayers only with clean water, away from well sites.

Thoroughly clean all traces of Diuron 80 DF from application equipment immediately after use. Flush tank, pumps, hoses, and boom with several changes of water after removing nozzle tips and screens (clean parts separately).

CHEMIGATION STATEMENT: DO NOT apply through any type of irrigation system.

RESISTANCE MANAGEMENT

Biotypes of certain weeds listed on this label are resistant to Diuron 80 DF and other herbicides with the same mode of action, even at exaggerated application rates. Biotypes are naturally occurring individuals of a species that are identical in appearance but have slightly different genetic compositions; the mode of action of an herbicide is the chemical interaction that interrupts a biological process necessary for plant growth and development.

If weed control is unsatisfactory, it may be necessary to retreat problem areas using a product with a different mode of action.

If resistant weed biotypes are suspected or known to be present, use a combination of tillage, retreatment, tank-mix partners, and/or sequential herbicide applications with Diuron 80 DF to help control these biotypes, or use a planned herbicide rotation program where other herbicides having different modes of action are used.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements **DO NOT** apply to forestry applications, public health uses, or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- Volume-Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure-Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles-Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation-Orienting nozzles so that the spray is released backwards parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type-Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- Boom Length-For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application-Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which caus-

es small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

SELECTIVE USE IN CROPS

PREEMERGENCE USE (Germinating Weeds): Diuron 80 DF at recommended rates controls annual weeds and grasses such as:

0.75 to 1 lb/Acre
Barnyardgrass (Watergrass)
Crabgrass
Lambsquarters
Pigweed
Purslane
Ragweed

1.5 to 2 lbs./Acre
Bluegrass, Annual
Chickweed
Corn Spurry
Dogfennel
Fiddleneck (Amsinckia)
Foxtail
Gromwell
Groundcherry, Annual
Knawel
Morningglory, Annual
Pennycress
Rattail Fescue
Red Sprangletop
Shepherdspurse
Tansymustard
Velvetgrass
Vernalgrass, Sweet, Annual
Wild Buckwheat
Wild Lettuce
Wild Mustard

2 to 6 lbs./Acre

Ageratum
Corn Speedwell
Dayflower
Flora's Paintbrush
Hawksbeard
Horseweed
Johnsongrass (Seedling)
Kochia
Kyllinger (Kyllinga)
Lovegrass, Annual
Marigold
Mexican Clover
Orchardgrass
Peppergrass
Pineappleweed
Pokeweed
Rabbit Tobacco
Ricegrass
Ryegrass, Annual
Sandbur
Smartweed, Annual
Sowthistle, Annual
Spanish Needles
Velvetleaf (Buttonweed)
Wild Radish

Partial Control:

1 lb./Acre
Cocklebur
Morningglory, Annual
Prickly Sida (Teaweed)
Sesbania
Sicklepod

4 lbs./Acre
Horsenettle
Quackgrass

8 to 10 lbs./Acre
Guineagrass
Maidencane
Pangolagrass

APPLICATION DIRECTIONS

AERIAL APPLICATION: For alfalfa, barley (winter), cotton (preplant or preemergence only), grass seed crops (PNW only), sugarcane, wheat (winter), and rights-of-way, application may be made by aircraft at 5 to 10 gallons of water per acre unless otherwise noted. Avoid overlapping of spray swath and avoid application under conditions where excessive drift may occur. Where land is bedded, make application parallel to rows.
GROUND APPLICATION: Use a boom power sprayer properly calibrated to a constant speed and rate of delivery. Openings in screens should be 50 mesh or larger. Continuous agitation in the spray tank is required to keep the material in suspension.
Agitate by mechanical or hydraulic means. If by-pass or return line is used, it should terminate at bottom of tank to minimize foaming. Avoid overlapping and shut off spray booms while starting, turning, slowing, or stopping or injury to crop may result.
PREEMERGENCE: For preemergence application, use sufficient spray volume and pressure to uniformly distribute the spray solution over treated soil. Preemergence weed control will be reduced on high organic matter soils such as peat or muck.
POSTEMERGENCE: For postemergence application, use sufficient spray volume and pressure for thorough coverage of weed foliage. For selective applications and applications near sensitive crops, use low spray pressure to keep spray drift to a minimum. Diuron 80 DF at recommended rates controls seedling annual weeds such as annual morningglory, barnyardgrass (watergrass), crabgrass, crowfoot, goosegrass, pigweed, and purslane. Addition of a surfactant to the spray (where recommended) increases contact effects of Diuron 80 DF. Best results are obtained on succulent weeds growing under conditions of high humidity and temperatures over 70°F or higher.
SPRAY PREPARATION: Mix proper amount of Diuron 80 DF into necessary volume of water. Where use of surfactant is recommended, dilute with ten parts of water and add as last ingredient to nearly full spray tank.
TANK MIXTURES: Diuron 80 DF may be tank mixed with other herbicides and/or adjuvants registered for crop or noncrop use in this label. Refer to the label of the tank mix product(s) for any additional use instructions or restrictions.
REPLANTING: Unless otherwise directed, **DO NOT** replant treated areas to any crop within 2 years after last application as injury to subsequent crops may result. **Note:** for crops grown in the arid west, reductions in normal irrigation practices for the crop in production or a summer fallow period without supplemental irrigation may require the crop rotation intervals to be extended.
When such conditions occur, a field bioassay should be completed prior to planting any desired crop. A successful bioassay means growing to maturity a test strip of the crops intended for production. The test crops strip should cross the entire field including knolls, low areas, and areas where any berms were located. The results of this bioassay may require the rotation intervals to be extended.
RATES: All rates of Diuron 80 DF are expressed as broadcast rates. Where band applications are specified, use proportionately less. For example, use 1/3 of the broadcast rate when treating a 14-inch band where row spacing is 42 inches. Where a range of dosages is given, use the lower rate on coarse-textured soils low in clay or organic matter and the higher rate on the fine-textured soils high in clay or organic matter. For postemergence application, use the lower rate on smaller weeds and the higher rate on the larger weeds.
SOIL LIMITATIONS: Crop injury may result from failure to observe the following: Unless otherwise directed, **DO NOT** use on sand, loamy sand, gravelly soils, or exposed sub-soils; nor on pecans where organic matter is less than 0.5%; nor on alfalfa, apples, artichoke, barley (winter), citrus, cotton, grapes, oats, olives, papayas, peaches, pears, sorghum, sugarcane, walnuts, and winter wheat where organic matter is less than 1%, nor on blueberries, birdsfoot trefoil, caneberries, gooseberries, macadamia nuts, and peppermint where organic matter is less than 2%.

DIURON 80 DF Specimen Label

FIELD CROPS: (See SOIL LIMITATIONS) A good seedbed must be prepared before premergence use of Diuron 80 DF as crop injury may result if application is made to ground which is cloddy or compacted resulting in improperly planted seed. Plant seed to depth specified. Unless otherwise directed, the surface of the soil should not be cultivated or disturbed after application of Diuron 80 DF and before emergence of the crop as weed control may be reduced and crop injury may result. However, if moisture is insufficient to activate the herbicide, a shallow cultivation (rotary hoe preferred) should be made after emergence of crops while weeds are small enough to be controlled by mechanical means.

FRUIT AND NUT CROPS: (see SOIL LIMITATIONS) Unless otherwise directed, make single application per year as a directed spray avoiding contact of foliage and fruit with spray or drift. **DO NOT** graze livestock in treated orchards or groves.

RECOMMENDED USES

ALFALFA

Treat only stands established for 1 year or more. **DO NOT** apply to seedling alfalfa nor to alfalfa/grass mixtures. **DO NOT** apply to alfalfa under stress from disease, insect damage, shallow root penetration (such as on shallow hard pans), alkali spots, nor to flooded fields as crop injury may result. **DO NOT** spray on snow-covered or frozen ground. Apply only once per year. **DO NOT** exceed 3 lbs. per acre per year.

Arizona, Nevada: Use 1.5 to 3 lbs./Acre. Apply in fall after alfalfa becomes dormant but no later than January.

California (Dormant and Semi-Dormant Varieties): Use 1.5 to 3 lbs./Acre. Apply in fall or winter after alfalfa becomes dormant or semi-dormant but before growth begins in the spring. Crop injury may result if application is made to actively growing alfalfa. For best results, apply before weeds have emerged or become established (2 inches in height or diameter). Control of established weeds is improved by applying Diuron 80 DF with a suitable contact herbicide registered for such use. Sufficient rainfall for soil activation of Diuron 80 DF is unlikely in California after February 1. Treated areas may be replanted to any crop after 1 year from last application if rate does not exceed 2 lbs./Acre.

Eastern Colorado, Kansas: For control of tansymustard, apply 1 lb./Acre shortly after emergence of mustard in the fall or winter. Use 2 lbs./Acre if weeds are 2 to 4 inches in height. Alternatively, if other annual weeds are present, apply 2 to 3 lbs./Acre in February or March.

Idaho, Oregon, Washington: For control of annual weeds, use 1.5 to 3 lbs./Acre. Apply in fall after alfalfa becomes dormant but no later than mid-December.

Other Areas Where Alfalfa Becomes Winter Dormant: Use 1.5 to 3 lbs./Acre (1.5 to 2 lbs./Acre East of Appalachian Mountains). Apply in March or early April but before spring growth begins.

APPLE

Use Diuron 80 DF alone or apply as a tank mixture with Sinbar® Herbicide.

DO NOT apply more than 4 lbs. per acre per year. When using Diuron 80 DF in a sequential treatment program, allow a minimum of 90 days between applications. **DO NOT** make more than two applications of Diuron 80 DF per year.

Diuron 80 DF Alone: Use only under trees established in the orchard for at least 1 year. **DO NOT** treat varieties grafted on full-dwarf root stocks. Apply 4 lbs./Acre in the spring from March through May. In the Far West, apply 4 lbs./Acre to small weeds less than 2 inches in height or diameter under dormant trees. Alternatively, treatments to small weeds may be applied at 2 lbs./Acre postharvest followed by 2 lbs./Acre prior to bud break.

Georgia: Apply 2 to 3 lbs./Acre in the spring. Repeat application in the fall but **DO NOT** use more than 4 lbs./Acre per year. Add a surfactant to improve control of small, emerged weeds.

Diuron 80 DF plus Sinbar: Use only under trees established in the orchard for at least 2 years. Apply either in the spring or after harvest in the fall before weeds emerge or during early seedling stage of weed growth.

	Rate/Acre					
	1 to 2% Organic Matter			More Than 2% Organic Matter		
Soil Texture	Diuron 80 DF lbs./Acre		Sinbar lbs./Acre	Diuron 80 DF lbs./Acre		Sinbar lbs./Acre
Sandy Loam	1.0	+	1.0	1.5	+	1.5
Loam, Silt Loam, Silt	1.5	+	1.5	2.0	+	2.0
Clay Loam, Clay	2.0	+	2.0	2.0	+	2.0

Where crop is grown under furrow irrigation or under raised-berm flood irrigation (trees 4 to 6 inches above waterline), apply only as a band treatment. **DO NOT** treat trees planted in the bottom of irrigation furrows, nor trees grown under flat flood or basin irrigation as injury to trees may result. Where complete weed control to harvest is desired, additional weed control measures may be required during the growing season.

ARTICHOKE

California: Apply 2 to 4 lbs./Acre in late fall or early winter after the last cultivation. Apply before weeds germinate or to emerging seedlings. Direct spray to cover the area between the rows and at the base of artichoke plants keeping contact with crop plants at a minimum.

ASPARAGUS

Apply as a band or broadcast treatment. **DO NOT** apply to young plants during the first growing season (except as noted below), nor to newly seeded asparagus, nor on plants with exposed roots as severe injury may result. Preemergence weed control will be reduced on soils with greater than 5% organic matter.

Established Plantings: On light soils and other soils low in clay or organic matter, apply 1 to 2 lbs./Acre. On soils high in clay or organic matter, use 2 to 4 lbs./Acre. Two applications may be used. The first application should be made before weeds become established but no earlier than 4 weeks before spear emergence and no later than the early cutting period. If weeds are controlled into the cutting period by cultural practices, application may be delayed until immediately after the last cultivation. A second application may be made immediately following completion of harvest provided rainfall is expected. When two applications are used in one season, **DO NOT** exceed 3 lbs./Acre per application. In Washington (irrigated crop), apply a single treatment of 4 lbs./Acre. If treatment is delayed until late winter or early spring, incorporation of the chemical in the top 1 to 2 inches of soil may substitute for lack of rain to activate the herbicide.

Newly Planted Crowns (San Joaquin Delta, California): Make a single treatment of 2 to 4 lbs./Acre on soils high in clay or organic matter. Use the lower rate on clay loams and the higher rate on peat soils. **DO NOT** use on soils containing less than 2% organic matter. Soil must be settled by rainfall or irrigation prior to treatment. **DO NOT** treat crowns planted to a depth of less than 2 inches.

BANANA AND PLANTAIN

New Plantings: To control annual weeds, apply 1.5 to 3 lbs./Acre after planting but before weed or crop emergence. **DO NOT** apply to loose soil directly over the planting material.

Established Plantings: For control of annual weeds and for top-kill of perennials such as bermudagrass, birdseed grass, and guineagrass, apply 3 to 6 lbs./Acre plus surfactant. Avoid contact of banana and plantain plants with spray or drift as injury may result. When tall, dense weed growth is present, remove weed growth before application. If application is made to soil free of weeds, omit surfactant from the spray mixture. Repeat treatment as necessary. Apply at 6-week intervals or longer for a maximum of 12 lbs/Acre of Diuron 80 DF per acre (broadcast basis) in 12 months.

Note: DO NOT replant treated area to any crop within 2 years after last application as injury to subsequent crops may result. Exception; sugarcane or pineapple may be planted after 1 year.

BARLEY (WINTER)
(Drill Planted)

Western Oregon and Western Washington: Make a single application of 1.5 to 2 lbs./Acre as soon as possible after planting but before emergence of barley. **DO NOT** replant treated areas to any crop within 1 year after last application as injury to the subsequent crop may result.

BIRDSFOOT TREFOIL (Lotus)

Western Oregon: Treat only stands established for at least 1 year. **DO NOT** apply to seedling trefoil as injury may result. Make a single application of 2 lbs./Acre when trefoil is dormant (October 15 to December 15). **DO NOT** replant treated areas to any crop within 1 year after last application as injury to subsequent crops may result.

BLUEBERRY, CANEBERRY, GOOSEBERRY

Use only in fields which have been established for at least 1 year. **DO NOT** apply to berries interplanted with fruit trees. **DO NOT** apply to plants where roots are exposed as injury may result. Apply as a band treatment at base of canes or bushes. For spring application, apply before germination and growth of annual weeds.

Arkansas, Florida, Georgia, Mississippi, Missouri, New Hampshire, North Carolina, South Carolina-Blueberry: Apply 1.5 to 2 lbs./Acre in the spring and repeat treatment after harvest in the fall. Add a surfactant to improve control of small, emerged weeds.

California-Blackberry, Boysenberry, Dewberry, Loganberry, Raspberry: For control of winter annual weeds, apply 2 lbs./Acre in October or November. Repeat at the same rate in late spring to control summer annuals. A single application of 3 lbs./Acre in January or February will control annual weeds in some areas, but the separate fall and spring schedule is preferred.

Indiana, Michigan, Ohio-Blueberry: Apply 2 to 4 lbs./Acre in late spring.

Alternatively, apply 2 lbs./Acre in the fall and repeat at the same rate in the spring.
Indiana, Michigan, Ohio-Raspberry: Apply 3 lbs./Acre in late spring.
Maine, Massachusetts-Blueberry: Apply 2 lbs./Acre in late spring.
Maryland, New Jersey-Blueberry: For control of winter annual weeds, apply 2 lbs./Acre from October to December, or make a single application of 2.5 lbs./Acre in early to mid-spring.
Western Washington, Western Oregon-Blueberry, Caneberry, and Gooseberry: For control of winter annual weeds, apply 2 lbs./Acre in October or November. Repeat at the same rate in late spring to control summer annual weeds. A single application of 3 lbs./Acre in January or February will control both winter and summer annual weeds in some areas, but the separate fall and spring schedule is preferred.

CITRUS

Time application as indicated for specific areas, however, application may be made any time of the year where sprinkler or flood irrigation can be timed to activate the herbicide. Established perennial weeds require other special control procedures.
Diuron 80 DF may be applied in citrus and in combination with registered paraquat and glyphosate formulations. Read and follow specific label instructions, precautions, and restrictions on the label of the tank mix partner when applying Diuron 80 DF with other products.
Note: For citrus trees four or less years of age, make a maximum of two applications per year. Where Diuron 80 DF in used in a sequential treatment program, allow a minimum of 60 days between applications. For citrus trees four or more years of age, make a maximum of two applications per year. When Diuron 80 DF is used in a sequential treatment program, allow a minimum of 80 days between applications.
Arizona (except Yuma area) and California (except Imperial and Coachella Valleys): Apply 3 to 4 lbs./Acre shortly after grove has been laid up in final form (non-tillage program) in late fall or early winter. Alternatively, apply 2 lbs./Acre in October or November and repeat at the same rate in March or April. Subsequent annual applications of 2 to 3 lbs./Acre will usually give adequate weed control.
Florida: Use only as a band application. **DO NOT** use "Trunk to Trunk".

East Coast/Flatwoods Areas-(low permeable soils)
Apply from 2 lbs./Acre to a maximum of 8 lbs./Acre for control of annual broadleaf weeds and annual grasses. Addition of an approved surfactant will improve control of emerged weeds.
DO NOT use more than 8 lbs. per treated acre in any one application.
DO NOT apply more than 8 lbs. per treated acre per year. This amount corresponds to 6.4 pounds of diuron, the active ingredient in Diuron 80 DF. The maximum allowable use rate for diuron is 6.4 pounds active ingredient per treated acre per year inclusive of all diuron formulations used within 1 year.

Ridge Areas-except Highland Co. (highly permeable soils)
Apply from 2 lbs./Acre to a maximum of 4 lbs./Acre for control of annual broadleaf weeds and annual grasses. Addition of an approved surfactant will improve control of emerged weeds. **DO NOT** use more than 4 lbs. per treated acre in any one application.
DO NOT apply more than 8 lbs. per treated acre per year. This amount corresponds to 6.4 pounds of diuron, the active ingredient in this product. The maximum allowable use rate for diuron is 6.4 pounds active ingredient per treated acre per year inclusive of all diuron formulations used within 1 year.
Ridge Areas-Highland Co. (highly permeable soils)
Apply from 2 lbs./Acre to a maximum of 4 lbs./Acre for control of broadleaf weeds and annual grasses. Addition of an approved surfactant will improve control of emerged weeds. **DO NOT** use more than 4 lbs. per treated acre in any one application.
DO NOT apply more than 6 lbs. per treated acre per year. This amount corresponds to 4.8 pounds of diuron, the active ingredient in Diuron 80 DF. The maximum allowable use rate for diuron is 4.8 pounds active ingredient per treated acre per year inclusive of all diuron formulations used within 1 year.
DO NOT use at less than 60-day intervals.

Puerto Rico: Make a single application of 4 to 8 lbs./Acre or apply 3 to 4 lbs./Acre followed by the same rate 4 to 6 months later. On bearing citrus, apply anytime when seasonal rains are expected. On non-bearing trees, apply when winter banks are pulled down.
Texas: Apply 2 to 4 lbs./Acre for annual weeds. Use 4 to 6 lbs./Acre for control of seedling johnsongrass. Spring treatments give best results. Well-established weeds should be eliminated by cultivation prior to treatment.

CORN (Field)

Postemergence: Make a single application of 0.75 lb./Acre in combination with non-pressure nitrogen solution. If nitrogen solution is not used, apply 1 lb./Acre with surfactant. Apply as directed spray when corn is at least 20 inches high and weeds are no taller than 3 inches.
DO NOT APPLY OVER TOP OF CORN.
DO NOT replant to any crop within 1 year after last application as injury to subsequent crops may result. Exception: cotton, corn, and grain sorghum may be planted the spring following treatment.
Preemergence-Arkansas, Louisiana, Mississippi, and Tennessee: Make a single application of 0.67 to 1 lb./Acre as a broadcast or band treatment after planting but before corn emerges. Plant corn at least 1 1/2 inches deep. **DO NOT** replant treated areas to crops other than corn or cotton within 4 months following band treatment and 6 months following broadcast treatment as injury to subsequent crops may result.

COTTON

USE PRECAUTIONS:
During a single crop season, **DO NOT** exceed the following amount of Diuron 80 DF per acre as injury to subsequent crops may result; 1 lb. on sandy loam, 1.8 lbs. on clay loam, and 2.75 lbs. on clay.
DO NOT make more than 3 applications of Diuron 80 DF per year.
DO NOT SPRAY OVER THE TOP OF COTTON PLANTS.
DO NOT apply to sand or loamy sand soils.
DO NOT use on soils with less than 1% organic matter as crop injury may result. Seedling disease may weaken plants and increase the possibility of injury from the use of trifluralin products followed by Diuron 80 DF. These treatments should be used only in conjunction with a standard fungicide seed treatment plus a good supplemental soil fungicide program such as captan-PCNB mixture.
DO NOT use Diuron 80 DF in preplant or preemergence applications where soil-applied organophosphate insecticides are used due to potential for severe cotton injury and possible stand loss.
DO NOT allow livestock to graze treated cotton.
Note: When using Diuron 80 DF in a sequential treatment program, allow a minimum of 21 days between applications.
PREPLANT
Arizona and California: Use Diuron 80 DF alone or apply as a separate operation following preplant broadcast treatment with trifluralin products (incorporated according to directions on the trifluralin product label). Apply Diuron 80 DF as a broadcast spray after beds are formed, pre-irrigated, and final seedbeds prepared. Prior to planting, drag-off the tops of the beds and plant in moist soil not treated with Diuron 80 DF. Treated soil is returned to the bed after planting when irrigation furrows are reformed after cotton has emerged. If more than two furrowing-out operations are performed prior to lay-by, or deep furrows are made early, weed control may be reduced in the furrow bottoms.

Diuron 80 DF Alone: Apply at 1 to 2 lbs./Acre
Diuron 80 DF following trifluralin products:

	Rate/Acre	
Soil Texture	Trifluralin products	Diuron 80 DF
Sandy Loam, Loam, Silt Loam, Silt	1 pt.	0.67-1 lb.
Sandy Clay Loam, Clay Loam, Silty Clay Loam, Sandy Clay, Clay	1.5 pts.	1-1.25 lbs.

PREPLANT
Except Arizona and California: Diuron 80 DF may be used for burndown of existing annual weeds and residual control of weeds prior to planting cotton. Complete any planned tillage prior to application. Apply herbicide treatments before weeds germinate or before weed seedlings are more than 2 inches tall. If weeds are emerged prior to application, the addition of a non-ionic surfactant is recommended. Tillage following application should be avoided to prevent incorporation of the herbicide into the cotton seed germination zone which may result in crop injury. Dragging treated soil from beds will concentrate the herbicide in middles and reduce residual weed control on the beds.
Apply Diuron 80 DF at 1 to 2 lbs./Acre from 15 to 45 days prior to anticipated planting. Refer to the table below for use rates in preplant applications. **DO NOT** exceed suggested use rates for individual soil textures shown in the table below. If less than the maximum rate of application for a given soil is applied preplant, subsequent preemergence applications of Diuron 80 DF may be made. However, the total combined application rate for Diuron 80 DF applied preplant and preemergence may not exceed the maximum suggested use rate for either application method.

DIURON 80 DF

Specimen Label

Diuron 80 DF Alone:

Soil Texture	Rate/Acre
Sandy Loam, Loam, Silt Loam, Silt	1 lb.
Sandy Clay Loam, Clay Loam, Silty Clay Loam, Sandy Clay	1.25 lbs.
Silty Clay, Clay	2 lbs.

Preemergence application of herbicides with a similar mode of action to that of diuron following preplant application of Diuron 80 DF may result in cotton injury. When preplant applications of Diuron 80 DF are followed by preemergence applications of herbicides with a similar mode of action, for example of Meturon®, Cotoron®, or other products containing fluometuron, product containing fluometuron should be used at the minimum rate of application for the soil under consideration in order to reduce potential for crop injury. This is most critical where applications of Diuron 80 DF are made less than 30 days preplant, on coarse-textured soils, and on soils low in organic matter. The risk of injury from preplant applications of Diuron 80 DF is reduced where substantial rainfall (greater than 0.5 inches) occurs between application and planting. Read and follow any additional precautions on the Diuron 80 DF label when using this product for preplant weed control in cotton.

PREPLANT TANK MIXES: When emerged weeds taller than 2 inches or weeds not listed on the Diuron 80 DF label are present, Diuron 80 DF may be tank mixed with other products registered for preplant applications in cotton. The addition of dry spray grade ammonium sulfate at the rate of 2.0% w/w (17 lbs. per 100 gallons finished spray solution) is suggested to enhance performance of Diuron 80 DF plus glyphosate tank mixes.

REPLANTING: Only cotton and corn may be planted within 6 months of preplant applications of Diuron 80 DF. To avoid crop injury following replanting, avoid disturbing the original bed.

PREEMERGENCE

Except Arizona and California: Use Diuron 80 DF alone or apply as a separate operation following preplant treatment with trifluralin products. Apply Diuron 80 DF after planting but before cotton emerges.

DO NOT treat cotton in deep furrows as crop injury may result.

Use only where cotton is planted on flat or raised seedbeds. Shallow incorporation (no deeper than 0.25 inch) with a rotary hoe or similar equipment following planting usually improves results, especially during dry weather. A wide press wheel should be used on the planter to provide a level seedbed for subsequent early season postemergence treatments. If moisture is insufficient to activate Diuron 80 DF or if soil becomes crusted before crop emerges, a shallow rotary hoeing (no deeper than 0.25 inch) should be made before weeds become established. Diuron 80 DF should not be applied preemergence following application of the maximum rate for a given soil applied preplant. If less than the maximum rate is used preplant, additional Diuron 80 DF may be applied preemergence. However, the total amount of Diuron 80 DF applied preplant and preemergence must not exceed the maximum suggested use rate for either preplant or preemergence applications.

Diuron 80 DF Alone: Make a single application as a broadcast or band spray, using the following broadcast rates. Use proportionately less for band treatment.

Soil Texture	Rate/Acre
Sandy Loam, Loam, Silt Loam, Silt	1 lb.
Sandy Clay Loam, Clay Loam, Silty Clay Loam, Sandy Clay	1.25 lbs.
Silty Clay, Clay	2 lbs.

PREEMERGENCE APPLICATIONS OF DIURON 80 DF FOLLOWING TRIFLURALIN PRODUCTS: Apply trifluralin products prior to planting as a broadcast or band treatment. Incorporate according to the directions on trifluralin labels. As a separate operation apply Diuron 80 DF after planting but before cotton emerges. Use the following broadcast rates; for band treatment use proportionately less.

	Rate/Acre	
Soil Texture	Trifluralin products	Diuron 80 DF
Sandy Loam, Loam, Silt Loam, Silt	1 pt.	1 lb.
Sandy Clay Loam, Clay Loam, Silty Clay Loam, Sandy Clay, Clay, Silty Clay	1.5 pts.	1.25-2 lbs.

POSTEMERGENCE: Apply Diuron 80 DF only as a directed spray to cover weed foliage. Adjust nozzles to minimize contact of cotton leaves with spray or drift or crop injury may result. Applications may also be made in hooded/shielded sprayers.

EARLY SEASON: Apply when cotton is at least 6 inches tall and when weeds are actively growing and **DO NOT** exceed 2 inches in height. Apply as a band or broadcast treatment at the following rate. Two applications may be made if needed.

Annual Weed Problem (up to 2 inches tall)	Rate/Acre
Cotton 6-8"	0.5 lb.
Cotton 8-12"	0.75 lb.

For control of seedling perennial grass such as johnsongrass in directed sprays and partial control of nutsedge or when weed growth is under drought stress or over 2 inches in height, add 2 to 3.5 lbs. active DSMA or 1.65 to 2 lbs. active MSMA to above spray mixture. If DSMA or MSMA are used, **DO NOT** apply after first bloom.

For enhanced weed control in hooded/shielded sprayer applications, add MSMA or DSMA as suggested above; or add registered glyphosate or paraquat formulations according to label recommendations. Consult product labels for specific recommendations and precautions for hooded/sprayer applications.

LATE SEASON (LAY-BY): Apply 1 to 1.5 lbs./Acre (1 to 2 lbs. in Arizona and California) per acre when cotton is at least 12 inches high (at least 20 inches for Pima S-2). For control of germinating weed seedlings, apply to soil beneath cotton plants and between rows immediately after last cultivation. In irrigated cotton, best weed control is obtained if the field is irrigated within 3 to 4 days after application, to thoroughly wet the surface of the ground over the row to carry the herbicide into the root zone of germinating weeds. Alternatively, for control of emerged annual weeds (4 inches or less in height) at lay-by time, make a single application in combination with surfactant, or use 0.5 to 0.75 lb./Acre plus surfactant and repeat later if needed.

REPLANTING: If initial seeding fails to produce a stand, cotton may be replanted in soil treated preemergence with Diuron 80 DF alone or following preplant application of trifluralin products. Wherever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation such as discing. **DO NOT** relist nor move soil into the original drill area. Plant seed at least 1 inch deep. **DO NOT** retreat field with a second preplant or preemergence application of herbicide during the same crop year as injury to crop may result.

Subsequent Crops

Diuron 80 DF Type of Application	That May Follow Treated Cotton
Band pre or postemergence	Any crop 4 months after last application
Band pre plus postemergence or Broadcast preemergence (and preplant) or Broadcast preemergence plus band postemergence	Cotton, soybeans, corn, or grain sorghums (not sorgos or forage sorghums nor grass sorghums) the next spring. **DO NOT** replant treated areas to any other crop within 1 year after last application as injury to subsequent crops may result.
Broadcast postemergence (lay-by)	Cotton, corn, grain sorghums (not sorgos or forage sorghums nor grass sorghums) the next spring. **DO NOT** replant treated areas to any other crop within 1 year after last application as injury may result.
For subsequent crops in fields where trifluralin products are used, follow instructions on the trifluralin product label.	

FILBERTS

Diuron 80 DF is recommended for control of certain weeds in filbert orchards established for at least 1 year.

DO NOT apply more than 4 lbs. per acre per year. When using Diuron 80 DF in a sequential treatment program, allow a minimum of 150 days between applications.

Apply Diuron 80 DF as a directed spray, avoiding contact on the foliage and fruit with spray or drift. Make an initial treatment of 2.75 lbs./Acre in the late fall or early winter after harvest. Repeat annually with 2.75 lbs./Acre, or apply 2 lbs./Acre in October or November after harvest and repeat at the same rate in March or April.

DO NOT apply when nuts are on the ground.

DO NOT graze livestock in treated orchards.

DO NOT use on light sandy soils.

If trees are planted on hillsides, the elimination of weeds and ground cover may cause excessive soil erosion. Under these conditions, strip applications of Diuron 80 DF (at proportionately lower rates) may be made near the trees or to the tree rows perpendicular to the slope.

GRAPE

Apply only as a band treatment to established vineyards at least 3 years old. On soils low in clay or organic matter (1 to 2%), severe plant injury may result if

heavy rainfall or more than 1 inch of irrigation occurs soon after treatment. This risk must be assumed by the user.

DO NOT apply more than 5 lbs./Acre as a single maximum use rate. **DO NOT** apply more than 10 lbs./Acre per year. When using Diuron 80 DF in a sequential treatment program, allow a minimum of 90 days between applications. Avoid direct or indirect spray contact to foliage and green bark (non-barked vines with the exception of undesirable suckers). Apply a maximum of two applications per year.

New York and Pennsylvania-Perennial Grasses: Use only in established vineyards (at least 4 years old) for spot control of perennial grasses such as orchardgrass, quackgrass, and ryegrass. Apply in the spring as a band treatment to ridged soil (2 to 4 inches high) under trellis at the rate of 8 to 10 lbs./Acre. Band width should not exceed 30 inches. **DO NOT** apply more than once every 4 years. Use only on heavy soil types such as loams, silt loams, clay loams. **DO NOT** use in areas where grape roots are shallow or exposed, because of high bedrock, poor drainage, or erosion as injury to grapevines may result.

East of the Rocky Mountains: On soils low in clay or organic matter (1 to 2%), apply 2 to 3 lbs./Acre. On soils high in clay or organic matter, apply 3 to 6 lbs./Acre. Apply in the spring just prior to germination of annual weeds.

West of the Rocky Mountains: For best results, apply during the winter months when weeds are less than 2 inches in height or diameter. Rainfall or overhead sprinkler irrigation sufficient to wet the soil to a depth of 2 inches is necessary to activate the herbicide. Abnormally heavy rainfall following application just before spring growth may move the herbicide into the root zone of grapes which could result in injury. For initial treatment, apply 3 to 4 lbs./Acre. Subsequent annual applications of 2 lbs./Acre will usually give adequate weed control. **DO NOT** apply to vines with trunks less than 1.5 inches in diameter as injury may result.

GRASS SEED CROPS
(Perennial except where specifically indicated)

Except as noted, apply only to established plantings at least 1 year old.

Note: Apply a single application per year at up to 3 lbs./Acre. May be applied by aerial application in the Pacific Northwest only.

Colorado, Kansas, Missouri, New Mexico, and Oklahoma: On sand bluestem, side oats grama, and switchgrass, apply 2 to 3 lbs./Acre during the dormant period shortly before weed seedlings emerge. **DO NOT** apply after crop begins growth in the spring as crop injury may result. In fields where ash residues have accumulated from burning straw use 3 lbs./Acre. Spread unburned chaff or straw with a harrow or chopper before application.

Eastern Oregon, Eastern Washington: On perennial bluegrass and fescue apply 1 to 3 lbs./Acre as broadcast in enough diluent to get even distribution. Apply in spring before rapid growth of the crop begins and when the windgrass is still small (1-4 leaf). **DO NOT** use on coarse (sand)-textured soils.

Western Oregon, Western Washington: On alta fescue, Astoria bentgrass, Highland bentgrass, Kentucky bluegrass (Merion bluegrass), and orchardgrass, apply 2 to 3 lbs./Acre between October 1 and November 15. In fields where ash residues have accumulated from burning straw, use 3 lbs./Acre. Spread unburned chaff or straw with a harrow or chopper before application. For best results, apply as soon as possible after fall rains start. Established weeds beyond two to four leaf stage should be removed prior to treatment.

Well established vigorous stands of spring planted alta fescue, Kentucky bluegrass, and orchardgrass may be treated the following fall provided the crop is planted before April 1 and treatment is not applied before October 15; apply 2 lbs./Acre.

Oregon and Washington: Apply in the fall to perennial ryegrass at the rate of 1 to 2 lbs./Acre and to tall fescue at the rate of 2 to 3 lbs./Acre. Use a sufficient volume of water, and minimum of 25 gallons per acre, for thorough coverage of weed foliage. For best results, make applications at the onset of the fall rains and before weeds have become established (typically October 1 through November 15). Established weeds beyond the 2-4 leaf stage should be removed prior to treatment.

Apply only to well established, vigorous stands. **DO NOT** apply to perennial ryegrass stands less than one year old. Use mechanical agitation and avoid overlap of spray patterns. Weed control efficacy may be reduced in fields where ash residues have accumulated from burning straw.

Annual Ryegrass for the Creation of Rows: Apply 1 to 2 lbs./Acre as a directed or shielded spray so the intended crop row area is not treated. These applications should be made where excessive populations of annual ryegrass are anticipated to volunteer from previous crops. Applications can be made as a directed/shielded spray during seeding or after emergence of annual ryegrass. These applications generally will occur between October 1 and January 15. Diuron 80 DF is most effective when applied before annual ryegrass volunteer plants have more than 2 leaves. If larger plants are to be treated, addition of a labeled postemergence herbicide will provide more effective control.

Adjust nozzle heights and spacing to allow the establishment of the desired row width (generally about 3 inches) and spacing (generally 9 to 12 inches). Use of low-pressure nozzles, shielded nozzles, or drop nozzles to reduce spray movement in the intended crop row area is recommended.

Fine Fescue Grass Seed Crops (including chewings, creeping red, and hard fescue types): For the suppression of rattail fescue, apply at 1 to 2 lbs./Acre on soils having at least 1% organic matter. **DO NOT** use on sand, loamy sand, gravelly soils, or exposed sub-soils.

Crop Stage and Application Timing: Diuron 80 DF is recommended for use on healthy vigorous stands of fine fescue. Diuron 80 DF can be applied to stands established at least 1 year or to new plantings that have been established for at least 6 months and have a minimum of eight tillers at time of application.

Apply in fall before grass weeds are beyond the one to two leaf stage and before broadleaf weeds are larger than 1 to 2 inches tall or across. Use the high end of the rate range for large weeds or where weed populations are high.

Approximately 1/2 to 1 inch of rainfall or sprinkler irrigation is needed to move Diuron 80 DF into the weed zone before weeds develop an established root system. Weeds larger than the size indicated or those having a well established root system before Diuron 80 DF is properly activated by rainfall/irrigation may not be adequately controlled.

Weed control may be reduced by heavy straw residues or ash from field burning.

Tank Mixes: Diuron 80 DF can be applied either alone or in a program involving tank mixes with other herbicides and adjuvants. When using a tank mix with other herbicides, use 1 to 1.5 lbs./Acre unless prior experience indicates it is safe to use higher rates. Tank mixes with other herbicides can increase the risk of crop injury. When using a certain tank mix for the first time, limit use to a small area to determine safety before treating large areas.

Use Precautions:

DO NOT replant treated areas to any crop within 2 years of last application as injury to subsequent crops may result.

DO NOT apply to snow covered or frozen ground as injury to the crop or poor weed control may result.

DO NOT treat stands lacking in vigor due to poor fertility, environmental stress, insect or disease, or damage from other herbicides.

New Plantings-Oregon, Washington: For use in newly planted bentgrass, chewing fescue, Kentucky bluegrass, perennial ryegrass, orchardgrass, and tall fescue. During planting operation, spray a suitable brand of activated charcoal as a 1-inch band on soil surface at 15 pounds per acre of crop where row spacing is 20 inches (300 pounds per acre broadcast basis). Mount nozzles to apply directly over seed rows to prevent crop injury. Follow with Diuron 80 DF as a single broadcast spray at the rate of 2.5 to 3 lbs./Acre. Apply as soon as possible after planting but before crops or weeds emerge and before rains or sprinkler irrigation. Fall or spring plantings may be treated. Best results usually occur with early fall plantings. Treatment will not control downy brome or wild oats.

PERENNIAL RYEGRASS, TALL FESCUE, KENTUCKY BLUEGRASS, AND FINE FESCUE (Grown for Seed)

For control of certain broadleaf weeds and annual grasses apply this product only to well-established vigorous stands of grasses as directed below. Use sufficient water (a minimum of 25 gallons per acre) for thorough coverage of weed foliage. For best results, make application at the onset of fall rains and before weeds become established (typically October 1 through November 15). Weeds beyond the 2- to 4-leaf stage will usually not be controlled. Use higher rates within the range listed when treating larger weeds and heavier weed infestation. Weed control may be reduced where straw or ash residues have accumulated on the soil surface. Lack of moisture to activate the herbicide may reduce weed control. Tank mixtures or sequential treatments with other herbicides may reduce crop tolerance and increase risk of crop injury. When using Diuron 80 DF in a tank mix or in a sequential treatment with other herbicides, **DO NOT** use the maximum rates listed below unless compatibility and the potential for phytotoxicity have been evaluated. Crop tolerance may be reduced and the likelihood of crop injury may increase when crop is under stress caused by weather, diseases, and insects.

Perennial Ryegrass (Established)(Oregon Only): Apply 1 to 2 pounds per acre per season (October 1 through mid-January) to control seedling grasses and broadleaf weeds such as annual bluegrass and others named on this label.

Tall Fescue (Established)(Oregon Only): Apply 2 to 3 pounds per acre per season (October 1 through mid-January) to control seedling grasses and broadleaf weeds such as rattail fescue and others named on this label.

Kentucky Bluegrass (Established stands east of the Cascade Mountains)(Oregon, Washington Only): Apply 1.5 to 3 pounds per acre per season (October 1 through mid-January) for suppression of rattail fescue and certain other seedling grasses and broadleaf weeds named on this label. Downy brome is not controlled. **DO NOT** use on *Poa trivialis* grass seed varieties.

Fine Fescue (Illahee, Rainier, Chewings, and related varieties including Hard Fescue)(Established stands west of the Cascade Mountains)(Oregon Only): Apply 1 to 2 pounds per acre for suppression of rattail fescue and certain other seedling grasses and broadleaf weeds named on this label. Make only 1 application per year. **DO NOT** use this product more than two years in succession in the same field.

MACADAMIA NUT

Hawaii: Use only under trees established in the orchard for at least 1 year. Apply 2 to 6 lbs./Acre immediately after harvest, preferably before weeds emerge. If weeds have emerged, add surfactant. Retreat as needed but **DO NOT** exceed 10 lbs./Acre per year.

OATS

DO NOT replant treated areas to any crop within 1 year after last application as injury to subsequent crops may result.

DRILL PLANTED SPRING OATS-Idaho, Eastern Oregon, Eastern Washington: Use in areas where average annual rainfall exceeds 16 inches. Make a single application of 1 to 1.5 lbs./Acre after planting, either before or after oats emerge but within 6 weeks of planting. Best results are usually obtained when application is made 3 to 4 weeks after planting. Apply before weeds are 3 to 4 inches in height.

DRILL PLANTED WINTER OATS AND MIXTURE WITH PEAS OR VETCH-Western Oregon and Western Washington: Make a single application of 1.5 to 2 lbs./Acre as soon as possible after planting but before crop emergence.

OLIVE

California: Use only under trees established in the grove for at least 1 year. Apply 2 lbs./Acre after the grove has been laid-up in final form in late October or November. Repeat at same rate in March or April. Remove weed growth prior to treatment.

PAPAYA

Use only under trees established in the orchard for at least 1 year. Apply 2.5 to 5 lbs./Acre, preferably before weeds emerge. If weeds have emerged, add surfactant.

PEAS
(Austrian Field)

Western Oregon: Diuron 80 DF is recommended for selective control of certain weeds in Austrian field peas.

Apply 1.5 to 2 lbs. Diuron 80 DF per acre as a broadcast spray with air or ground equipment as soon as possible after planting but before crop emerges for control of weeds such as chickweed, sheperdspurse, wild mustard, fiddleneck, lambsquarters, pigweed, and annual bluegrass. Use lower rate on coarse-textured soils and higher rate on fine-textured soils.

DO NOT use Diuron 80 DF on sand, sandy loam, gravelly soils, or exposed subsoils, or on soils having less than 1% organic matter as crop injury may result. **DO NOT** replant treated area to another crop within 1 year of application. Crop injury may result if severe winter stress, disease, or insect damage to the crop follows application.

PEACH

Diuron 80 DF may be applied alone or as a tank mix with Sinbar.

Where crop is grown under furrow irrigation or under raised-berm flood irrigation (trees 4 to 6 inches above waterline), apply only as a band treatment. **DO NOT** treat trees planted in the bottom of irrigation furrows, nor trees grown under flat flood or basin irrigation, as injury to trees may result. Where complete weed control to harvest is desired, additional weed control measures may be required during the growing season.

Diuron 80 DF Alone: Use only under trees established in the orchard for at least 3 years. Apply 2 to 2.75 lbs./Acre in the early spring before weeds emerge or during the early seedling stage of weed growth. In California, apply 2-3.75 lbs./Acre. **DO NOT** apply within 3 months of harvest. In the Far West, **DO NOT** apply within 8 months of harvest.

Georgia: On trees established for at least 2 years, apply 2 to 2.75 lbs./Acre in the spring. Repeat application in the fall but **DO NOT** exceed 5 lbs./Acre per year. Add surfactant to improve control of small, emerged weeds.

Diuron 80 DF plus Sinbar: Use only under trees established in the orchard for at least 2 years. Apply either in the spring or after harvest in the fall before weeds emerge or during early seedling stage of weed growth.

RATE/ACRE

	1 to 2% Organic Matter			More Than 2% Organic Matter		
Soil Texture	Diuron 80 DF lbs./Acre		Sinbar lbs./Acre	Diuron 80 DF lbs./Acre		Sinbar lbs./Acre
Sandy Loam	1.0	+	1.0	1.5	+	1.5
Loam, Silt Loam, Silt	1.5	+	1.5	2.0	+	2.0
Clay Loam, Clay	2.0	+	2.0	2.0	+	2.0

PEAR

Use only under trees established in the orchard for at least 1 year. **DO NOT** treat varieties grafted on full-dwarf root stocks. Apply 4 lbs./Acre in the spring from March through May. In the Far West, apply 4 lbs./Acre to weeds less than 2 inches in height or diameter under dormant trees. Alternatively, apply to small weeds at 2 lbs./Acre postharvest followed by 2 lbs./Acre prior to budbreak.

PECAN

Use Diuron 80 DF alone or as a tank mix with Sinbar. Make a single band or broadcast application as a directed spray using a minimum of 30 gallons of water per acre. Apply in the spring before weeds emerge or during the early seedling stage of growth.

RATE/ACRE

Soil Texture	Diuron 80 DF Alone*	OR	Tank Mix** Diuron 80 DF	+	Sinbar
Sandy loam	2 lbs.		1.5 lbs.	+	1.5 lbs.
Loam, Silt loam, Silt	3 lbs.		1.75 lbs.	+	1.75 lbs.
Clay loam, Clay	4 lbs.		2.0 lbs.	+	2.0 lbs.

*Use only under trees established in the grove for at least 3 years and on soils with at least 0.5% organic matter.

**Use only under trees established in the grove for at least 1 year and on soils with at least 1% organic matter.

Note: DO NOT use on eroded areas where sub-soil or roots are exposed, nor on trees that are diseased or lacking in vigor, or on trees planted in irrigation furrows as injury may occur.

PEPPERMINT

Washington, Oregon, Idaho: Apply Diuron 80 DF at 0.75 to 1 lb./Acre on soils having 1 to 2% organic matter. Apply Diuron 80 DF at 1 to 2 lbs./Acre on soils having 2.1 to 3.0% organic matter. Apply Diuron 80 DF at 2 to 3 lbs./Acre on soils having more than 3.0% organic matter.

Use Precautions: DO NOT apply to stands of mint suffering from stress due to low fertility, drought, winter injury, insects, disease, or damage from other herbicides or other causes.

DO NOT apply to snow covered or frozen ground as injury to the crop or poor weed control may result.

DO NOT apply to sand, loamy soil, gravelly soils, or exposed sub-soils. **DO NOT** apply to soils that have a high salt content and/or high water table or poor drainage that retards mint root development resulting in a shallow root system. **DO NOT** apply to soils having less than 1% organic matter.

Application Timing: Apply Diuron 80 DF to established (at least one year) stands of mint during the late winter dormant period or after flaming in the spring prior to the emergence of new growth. **DO NOT** cultivate after application.

If weeds are present at time of application, the use of a surfactant at 0.25% v/v or crop oil concentrate at 1.0% v/v may be used to increase the performance of Diuron 80 DF postemergence to weeds.

Tank Mixes and Sequential Treatments: Diuron 80 DF can be applied either alone or in a program involving tank mixes and/or sequential treatments with other herbicides and adjuvants providing Diuron 80 DF is not applied to actively growing mint plant.

When using a tank mix with other herbicides, use the lower end of the Diuron 80 DF use rate range unless prior experience indicates it is safe to use higher rates. Tank mixes and sequential treatments with other herbicides can increase the risk of crop injury. When using a certain tank mix or sequential treatment for the first time, limit use to a small area to determine safety before treating large areas.

PINEAPPLE

Hawaii: Apply 2 to 6 lbs./Acre as a broadcast spray just before or immediately after planting but prior to weed emergence. Use 2 to 4 lbs./Acre after harvesting the plant crop or ratoon crop (for the first ratoon crop as well as subsequent ratoon crops) but before differentiation. For plant crop only, additional broadcast or interspace applications may be made prior to differentiation at the rate of 2 lbs./Acre at intervals of not less than 2 months. Additional applications to plant crop may be made as needed to interspace only using 2 lbs./Acre. **DO NOT** apply more than 12 lbs./Acre as broadcast sprays nor more than 16 lbs. total per acre per plant crop. Treated areas may be planted to pineapple or sugarcane 1 year after last application.

Florida: Apply 4 to 8 lbs./Acre as a broadcast spray just before or immediately after planting but prior to weed emergence. For ratoon crop use 4 lbs./Acre after harvesting plant crop. For plant crop only, a second and third broadcast or interspace application may be made prior to differentiation at the rate of 2 lbs./Acre at intervals of not less than 2 months. Additional applications to plant crop may be made as needed to interspace only using 2 lbs./Acre. **DO NOT** apply more than three broadcast sprays (maximum 12 lbs./Acre) prior to differentiation nor more than 16 lbs. total per acre per plant crop. Treated areas may be planted to pineapple or sugarcane 1 year after last application.

Puerto Rico: Apply 3.75 to 6.25 lbs./Acre as a broadcast spray before or immediately after planting but prior to weed emergence. Preemergence application controls weeds such as pigweed, crotalaria, morningglory, purslane, crabgrass, foxtail, goosegrass, fall panicum, and sourgrass.

RED CLOVER

Western Oregon: Make a single application of 2 lbs./Acre on established red clover stands at least 9 months old. Apply when red clover is dormant between October 15 to December 15. **DO NOT** apply to seedling red clover. **DO NOT** replant treated area to any crop within 1 year after last application as injury to subsequent crops may result. Treatment will control annual weeds such as bluegrass, chickweed, hawksbeard, rattail fescue, ryegrass, and velvetgrass.

SORGHUM (Grain)

DO NOT SPRAY OVER TOP OF SORGHUM.

Southwestern States: Apply 0.25 to 0.5 lb./Acre plus surfactant. Apply as a directed postemergence spray after sorghum is 15 inches tall to control weeds 2 to 4 inches in height. Use lower rate on broadleaf weeds up to 2 inches tall. Use the higher rate on grasses up to 2 inches and broadleaf weeds up to 4 inches tall. When the lower rate is used, a second application may be made if needed. **DO NOT** exceed 0.5 lb./Acre. Treatment of weeds under drought stress is usually ineffective.

DO NOT replant treated areas to crops other than cotton or corn within 4 months following band treatment and 6 months following broadcast treatment as injury to subsequent crops may result.

SUGARCANE

To prevent possible crop injury on new cane varieties, test tolerance to Diuron 80 DF prior to adoption as a field practice. **DO NOT** treat sugarcane growing on thinly covered sub-soils or rocky areas as crop injury may result. Temporary chlorosis and stunting of the crop may result from application over emerged cane. Application over emerged cane should be made only as directed below, without the addition of a surfactant or crop oil concentrate. To minimize chlorosis and stunting, use directed postemergence sprays.

Diuron 80 DF may be applied as a directed spray (including hooded and shielded spray) in combination with formulations of paraquat. Consult the label of the tank mix partner for rates and timings of application, restrictions, and precautions.

PREEMERGENCE-Florida: For high organic soils, apply 2 to 4 lbs./Acre as a broadcast or band spray prior to weed emergence after planting or after harvesting plant crop (for ratoon crop).

POSTEMERGENCE-Florida: Make one or two applications of 2 lbs./Acre as needed by directed spray inter-row. Alternatively, for panicum control, make up to three applications of 0.5 to 1 lb. per acre plus surfactant as a directed spray after cane has emerged but before panicum exceeds 2 inches in height. Adjust nozzles to spray beneath cane plants and between rows to cover weed foliage and to minimize contact of cane leaves with spray or drift. **DO NOT** apply more than 6 lbs. total per acre between planting (or ratooning) and harvest.

Hawaii: Apply 2 to 6 lbs./Acre as a broadcast spray prior to weed emergence after planting or after harvesting plant crop or ratoon crop. Sequential applications of 2 to 4 lbs./Acre may be made as a broadcast spray over emerged cane or by directed spray inter-row.

If weeds are emerged, add a surfactant and apply as a directed spray. **DO NOT** apply more than three treatments nor more than 12 lbs./Acre in Hawaii between planting (or ratooning) and harvest. Treated areas may be replanted to sugarcane or pineapple 1 year after last application.

Puerto Rico: Apply 4 to 8 lbs./Acre as a broadcast spray prior to weed emergence after planting or after harvesting plant crop or ratoon crop. A second and third application of 2 to 4 lbs./Acre may be made as a broadcast spray over emerged cane or by directed spray inter-row.

If weeds are emerged, add a surfactant and apply as a directed spray.

DO NOT apply more than 3 treatments nor more than 10 lbs./Acre in Puerto Rico between planting (or ratooning) and harvest. Treated areas may be replanted to sugarcane or pineapple 1 year after last application.

Louisiana, Texas: Apply at 3 to 3.75 lbs./Acre. Diuron 80 DF may be applied as a broadcast spray after planting and following the harvesting of sugarcane. Diuron 80 DF may also be applied broadcast in late winter. Application is best when made prior to weed emergence. Diuron 80 DF may be applied as a post-directed spray immediately after the last cultivation. Direct the spray application to the base (no more than 1/3 the plant height) of the sugarcane plants. When small weeds (3 inches or less) are present at application, add a surfactant at 0.25% v/v or crop oil concentrate at 1.0% v/v to the spray mix.

Use Precautions: Temporary leaf yellowing may occur following application. **DO NOT** apply more than 7.5 lbs./Acre broadcast per year. Use proportionately less for band applications.

TREE PLANTINGS

Colorado, Montana, Nebraska, North Dakota, South Dakota, Wyoming: Use only under established plantings 1 year or older of American elm, caragana, cottonwood, Douglas fir, green ash, honeysuckle, Ponderosa pine, red cedar, Russian olive, and Siberian elm. Use 2.5 to 5 lbs./Acre. Apply as a band 4 feet wide in the tree row (2 feet on each side of row). For example, 1 ounce Diuron 80 DF treats 135 feet of tree row (2 feet on each side of row) at the rate of 5 lbs./Acre. Apply as a directed spray in early spring before weeds emerge and before trees leaf out. **DO NOT** apply to foliage of trees nor under trees growing in low areas as injury may result.

Idaho, Oregon, Washington: Diuron 80 DF is recommended for control of weeds to aid in the establishment of hybrid poplar plantings. Apply at 1 to 3 lbs./Acre depending upon soil texture and organic matter content. Use 1 to 2 lbs./Acre on coarse-textured soils and 2 to 3 lbs./Acre on medium- to fine-textured soils. **DO NOT** use on gravelly soils or on any soil having less than 0.5% organic matter as injury to trees may result. **Injury may result from applications to poplar plantings grown on sandy soil with low organic matter with sprinkler irrigation.** When applied in a band, the application rate will be in proportion to the area banded on a per acre basis.

Apply in late winter or early spring as a uniform broadcast spray before or after planting but prior to bud swell, or as a directed spray after bud swell. Apply before weeds emerge or after emergence while weeds are small. Some rainfall or water is necessary to move Diuron 80 DF into the weed root zone before weeds become well established. If weeds are present at time of treatment, add a surfactant at 1 to 2 quarts per 100 gallons of spray solution.

PREPLANT: Take precautions to prevent treated soil (usually top 1 inch) from coming into contact with roots of trees during the planting process as injury may result.

POST-PLANT (BROADCAST): It is best to wait until rain or irrigation has settled the soil around the newly planted trees before applying Diuron 80 DF. If trees are dormant, a broadcast application can be made.

POST-PLANT (DIRECTED): If buds have started to swell, use a directed spray pattern that prevents Diuron 80 DF from contact with trees as injury may result. During the growing season (from bud swell to leaf drop), Diuron 80 DF may be applied (alone or with tank mix) between tree rows in shielded and directed sprays.

Diuron 80 DF can be tank mixed with a glyphosate herbicide pre-plant and as a directed spray to broaden the spectrum of weeds controlled and improve post-emergence activity. Use 1 to 3 lbs. Diuron 80 DF plus glyphosate herbicide (according to label recommendations) depending upon soil type and weeds to be controlled. **Note:** There are several formulations of glyphosate herbicide. Check the glyphosate herbicide label to verify that the intended use as a pre-plant or post-directed spray on hybrid poplar plantations is allowed. Avoid contact of glyphosate herbicide with foliage, green stems, trees, or other desirable vegetation because severe damage or destruction may result.

WALNUT (ENGLISH)

California, Oregon, Washington: Use only under trees established in the orchard for at least 1 year. As an initial treatment, apply 2.75 lbs./Acre after the orchard has been laid-up in final form (non-tillage program) in late fall or early winter. Retreat annually with 2 to 2.75 lbs/Acre. In California, apply 2 to 3.75 lbs./Acre. Alternatively, apply 2 lbs./Acre in October or November and repeat at the same rate in March or April.

DO NOT use on sand, loamy sand, gravelly soils, or exposed sub-soils, nor where organic matter is less than 1%.

DO NOT graze livestock in treated orchards and groves.

DO NOT make more than two applications per year. **DO NOT** apply more than 4 lbs./Acre per year. In California, **DO NOT** apply more than 3.75 lbs./Acre per year. When using Diuron 80 DF in a sequential treatment program, allow a minimum of 150 days between applications.

WHEAT (WINTER)

Use Precautions: Crop injury may result where severe winter stress, disease, or insect damage follows application. Winter-sensitive varieties may be less tolerant of Diuron 80 DF than winter-hardy varieties. Crop injury may result from failure to observe the following: **DO NOT** use on sand or loamy sand soils, nor on gravelly or sandy loams with less than 1% organic matter. **DO NOT** use on thinly covered or exposed sub-soil area (clay knolls). **DO NOT** treat wheat planted less than 1 inch deep. **DO NOT** treat wheat where winter climatic conditions have caused "heaving" of plants. **DO NOT** treat wheat plants lacking in vigor due to poor emergence, insect damage, disease, high alkalinity or other causes. **DO NOT** apply after wheat has reached the "boot" stage of maturity. Unless specified otherwise, **DO NOT** use with surfactants or nitrogen solution. **DO NOT** replant treated areas to any other crop within 1 year after last treatment (except as noted) as injury to subsequent crops may result.

Idaho, Oregon and Washington-East of Cascade Range: Where average annual rainfall exceeds 16 inches, make a single application of 1 to 1.5 lbs./Acre. **FALL TREATMENT:** For early fall planted wheat (seeded before September 10), apply 3 to 6 weeks after planting but before weeds are 3 to 4 inches tall. Treatment after October 1 has generally given best results. Application should not be made after soil freezes in the fall. Wheat planted in late October should

not be treated until the following spring.
SPRING TREATMENT: Apply as soon as wheat starts to grow. Treatment made prior to April 10 will usually give good results provided weed growth is less than 4 inches tall. Application later than May 1 may give poor results.
Alternatively, make a single application of 0.5 to 1 lb. Diuron 80 DF plus 0.25 lb. bromoxynil per acre as a tank mixture in either the fall after wheat has emerged but before soil freezes or in the spring as soon as soil thaws. Apply before weeds are more than 2 inches tall or across.
Where average annual rainfall is 10 to 16 inches following fall planting, make a single application of 1 to 1.5 lbs./Acre when sufficient moisture is available to germinate wheat seed. Apply before soil freezes and weeds are 2 inches tall. Application later than March 1 may give poor results.
If fall-planted wheat fails to grow due to winter kill or adverse growing conditions after fall treatment, only fields treated before November 1 may be replanted to spring wheat. Spring wheat should not be planted before April 1 and only after deep discing and plowing to a depth of 4 to 6 inches prior to planting. **DO NOT** make a second application during the same crop year or injury to the crop may result.
Oregon, Washington-West of Cascade Range: Make a single application of 1.5 to 2 lbs./Acre as soon as possible after planting. If wheat and weeds have emerged, apply before weeds are 3 to 4 inches tall. Alternatively, apply a tank mixture of Diuron 80 DF plus bromoxynil as detailed for "East of Cascade Range".
Other Areas of Oregon and Washington: Make a single application in the spring as soon as wheat (fall-planted) starts to grow and before weeds are 2 inches tall. Application later than May 1 may give poor results.
Kansas, Oklahoma, and Texas: DO NOT use on sand or sandy loam soils. Use 1 lb./Acre on silt and silt loam soils and 1.5 to 2 lbs./Acre on clay, clay loam, and silty clay loam soils.
Central Plains, Midwest: Use 1 to 2 lbs./Acre.
Northeast: Use 1 to 1.5 lbs./Acre.

NON-CROP WEED CONTROL

Diuron 80 DF is an effective herbicide for the control of listed weeds. The degree of control and duration of effect will vary with amount of chemical applied, soil texture, rainfall, and other conditions.

Diuron 80 DF may be used as a preemergence treatment at any time of the year except when ground is frozen provided adequate moisture is supplied by rainfall or artificial means to activate the herbicide. Best results are obtained if applied shortly before weed growth begins. If dense growth is present, remove tops and spray the ground. Increased contact activity on established weeds may be obtained by the addition of a non-ionic surfactant. Apply as a drenching spray to actively growing weeds during warm weather when daily temperature will exceed 70°F.

Use a fixed-boom power sprayer properly calibrated to insure a constant rate of application. Mix proper amount of Diuron 80 DF into volume of water necessary to obtain uniform coverage. If a surfactant is used, dilute with 10 parts of water and add as last ingredient to nearly full tank. Diuron 80 DF must be kept in suspension at all times. Agitate by mechanical or hydraulic means in the spray tank. If bypass or return line is used, it should terminate at bottom of tank to minimize foaming. Openings in screens should be equal to or larger than 50 mesh.

Note: Diuron 80 DF may be applied by either ground application equipment or by air application equipment (helicopter only) for the control of various weeds and grasses on railroad rights-of-way (including storage yards, switch yards, etc.) and military installations. When making aerial applications, apply in sufficient water volume to ensure thorough coverage of the site to be treated; generally 5 to 15 gallons of water per acre are sufficient.

DO NOT exceed an application rate of 10 lbs./Acre except in areas of high rainfall (more than 40 inches per year) or dense vegetation (more than 90% weed ground cover). In areas with high rainfall or dense vegetation, a maximum application of 15 lbs. per acre is allowed. **DO NOT** exceed 15 lbs./Acre per year. **DO NOT** make more than two applications per year. If Diuron 80 DF is used in a sequential application program, allow a minimum of 90 days between applications.

General Weed Control: To control most annual weeds for an extended period of time on railroad rights-of-way (including storage yards, switch yards, etc.) and military installations, apply 5 to 15 lbs./Acre to control most annual weeds.

Broadleaves

5 to 15 lbs./Acre
Ageratum
Chickweed
Cocklebur
Corn Speedwell
Corn Spurry
Dayflower
Dogfennel
Fiddleneck (Amsinckia)
Flora's Paintbrush
Gromwell
Groundcherry, Annual
Hawksbeard
Horsenettle
Horseweed
Knawel
Kochia
Lambsquarter
Marigold
Mexican Clover
Morningglory, Annual
Pennycress
Pigweed
Pineappleweed
Pokeweed
Prickly Lettuce
Prickly Sida (Teaweed)
Purslane
Rabbit Tobacco
Ragweed
Sesbania
Shepherdspurse
Sicklepod
Smartweed, Annual
Sowthistle, Annual
Spanishneedles
Tansymustard
Velvetleaf (Buttonweed)
Wild Buckwheat
Wild Lettuce
Wild Mustard
Wild Radish

Grasses

5 to 8 lbs./Acre
Barnyardgrass (Watergrass)
Bluegrass, Annual
Crabgrass
Foxtail
Kyllinger (Kyllinga)
Lovegrass, Annual
Orchardgrass
Peppergrass
Quackgrass
Rattail Fescue
Red Sprangletop
Ricegrass
Ryegrass, Annual
Sandbur
Seedling, Johnsongrass
Velvetgrass
Vernalgrass, Sweet, Annual

8 to 15 lbs./Acre
Guineagrass
Maidencane
Pangolagrass

Irrigation and drainage ditches: Apply 5 to 15 lbs./Acre to control most annual weeds as shown above. Apply only when water is not in the ditch. For irrigation ditches, apply during the non-crop season, and when ditch is not in use. To avoid crop injury, it is essential to minimize movement of Diuron 80 DF in irrigation water. The herbicide must be fixed in the soil by moisture. Apply before expected seasonal rainfall, if possible when soil in the ditch is still moist. Following treatment, if rainfall has not totaled at least 4 inches, fill ditch with water and allow to stand for 72 hours. Drain off any waste water remaining before using ditch. **DO NOT** treat any ditch area into which roots of trees or other desirable plants may extend as injury may result.
Dry Application: Diuron 80 DF may be applied dry for control of the listed weeds on non-crop sites. Apply Diuron 80 DF granules using dry application (ground) equipment to distribute the granules uniformly to the target area.

DIURON 80 DF

Specimen Label

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Store product in original container only, away from other pesticides, fertilizer, food, or feed.

PRODUCT DISPOSAL: DO NOT contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or incineration; if allowed by State and local authorities, by burning. If burned, stay out of smoke.

In the event of a major spill, fire, or other emergency, call INFOTRAC at 1-800-535-5053, day or night.

DO NOT REUSE EMPTY CONTAINER

WARRANTY STATEMENT

Vegetation Management, LLC warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Vegetation Management, LLC. To the extent allowed by law, Vegetation Management, LLC shall not be liable for consequential, special, or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. In addition to the foregoing, no purchaser of this product (other than an end user) shall be entitled to any reimbursement for any loss suffered as a result of any suspension or cancellation of the registration for this product by the U.S. Environmental Protection Agency. Except as expressly provided herein, Vegetation Management, LLC makes no warranties, guarantees, or representations of any kind, either expressed or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including, but not limited to merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall be damages not exceeding the purchase price paid for this product or, at Vegetation Management, LLC's election, the replacement of this product.

Manufactured for
Vegetation Management, LLC
4515 Falls of Neuse Rd, Suite 300
Raleigh, NC 27609

EPA 111705

ALLIGARE

BROMACIL/DIURON 40/40

ACTIVE INGREDIENTS:	By Weight
Bromacil: (5-bromo-3-sec-butyl-6-methyluracil)	40.0%
Diuron: (3-(3,4-dichlorphenyl)-1,1-dimethylurea)	40.0%
OTHER INGREDIENTS:	20.0%
TOTAL:	100.0%

EPA Reg. No. 81927-3

Letter(s) in lot number correspond(s) to superscript in EPA Est. No.

(ALB) EPA Est. No. 42750-MO-001 (BT) EPA Est. No. 37429-GA-001

(CSI) EPA Est. No. 53883-TX-002 (A) EPA Est. No. 11603-ISR-001

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID	
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	

See inside label booklet for additional Precautionary Statements.

Manufactured for:
Alligare, LLC
13 N. 8th Street
Opelika, AL 36801

EPA 20080820

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are made out of any waterproof material. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

All pilots, flaggers and groundboom applicators must wear:
- Long-sleeved shirt and long pants and,
- Shoes plus socks

All mixers, loaders, other applicators, and other handlers must wear:
- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves,
- A NIOSH-approved particulate filtering respirator equipped with N, R, or P class filter media (The respirator should have a NIOSH approval number prefix TC-84A and it is recommended that you require the respirator wearer be fit tested, and trained in the use, maintenance, and limitations of the respirator),
- Chemical-resistant apron when mixing, loading, or cleaning equipment or spills

See engineering controls for additional requirements.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROL STATEMENT

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Flaggers supporting aerial applications must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, flaggers must wear long-sleeved shirt, long pants, shoes, and socks.

USER SAFETY RECOMMENDATIONS

Users should:
- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately, if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Bromacil is known to leach through soil and has been found in ground water as a result of normal field use. Users are advised not to apply in areas where soils are permeable, particularly where ground water is used for drinking water. Consult with the pesticide state lead agency for information regarding soil permeability and aquifer vulnerability in your area. Apply this product only as specified on this label.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
- Coveralls
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Non-crop weed control is not within the scope of the Worker Protection Standard.

Do not enter or allow others to enter the treated area until sprays have dried.

GENERAL INFORMATION

Bromacil/Diuron 40/40 is a selective herbicide for use in citrus and in non-crop areas. Bromacil/Diuron 40/40 controls many annual weeds at lower rates and perennial weeds at the highest rates allowed by this label.

As this product must be absorbed through the root system of weeds, best results are obtained if treatment is made just before or after weeds have germinated to moist soil and moisture is supplied by rainfall or sprinkler irrigation within two weeks of application. Weed control symptoms are

slow to appear and may not become apparent until the chemical has been carried into the root zone of the weeds by moisture. The degree and duration of control will vary with the amount of herbicide applied, rainfall, soil texture, and other soil and water management practices.

USE PRECAUTIONS AND RESTRICTIONS

To avoid injury to or loss of desirable trees or other plants, observe the following use guidelines:

- Do not apply this product using any type of irrigation system.
- Aerial application is prohibited for all uses except for rights of way.
- Except as instructed, do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use in any recreational areas or in or around homes, in home fruit plantings, on lawns, walks, tennis courts, driveways, or other similar areas.
- Do not use in citrus orchards interplanted to other trees or desirable plants.
- Do not allow dry powder or spray to drift to desirable plants.
- Keep from contact with seeds, insecticides, fungicides, and fertilizers.
- Do not store near well sites.
- Do not graze cattle in treated areas.
- Thoroughly clean all traces of Bromacil/Diuron 40/40 from application equipment immediately after use. Flush tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately).
- Treated areas may be planted to citrus one year after last application. Do not replant to other crops within two years after last application as injury may result.

When Preparing for Use:

- Calibrate sprayers only with clean water away from well sites.
- Regularly inspect spray equipment.
- Mix only enough Bromacil/Diuron 40/40 for the specific application.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Ensure accurate measurement of pesticides.
- Avoid over-filling of spray tank.
- Dilute and agitate excess solution and apply at labeled rates/uses.

Tank Mixture Specific Guidelines:

- Bromacil/Diuron 40/40 may be tank mixed with other suitable herbicides registered for use on citrus or non-agricultural use. Use only those herbicides approved for use on citrus if applying to citrus and use only those herbicides approved for use in non-agricultural areas if applying to non-agricultural areas. Refer to the label(s) of the other products being added to the tank mix for any additional use information or restrictions. Before applying a tank mixture, read and observe all label directions for each product. *Follow the most restrictive label guidelines.*
- Bromacil/Diuron 40/40 may also be tank mixed with appropriate adjuvants used with herbicides in citrus or non-agricultural uses. Use only those adjuvants approved for use on citrus if applying to citrus and use only those adjuvants approved for use in non-agricultural areas if applying to non-agricultural areas.
- When tank mixing with Bromacil/Diuron 40/40, completely mix the product in the spray tank carrier before adding any other herbicide or spray adjuvant. A small compatibility test (see below) should be performed prior to adding the products into the spray tank using a combination of products not previously used. Refer to the Spray Preparation section of this label for further information.
- The spray tank contents must be thoroughly re-agitated if they are allowed to settle for any period of time.

APPLICATION INFORMATION

IMPORTANT NOTE: Bromacil/Diuron 40/40 use rates listed on this label are for broadcast treatments. For band treatments, use proportionately less.

Follow the application guidelines below:

- Apply using a properly calibrated fixed-boom power sprayer.
- Because over application of the herbicide may result in injury to the crop or successive crops, the spray booms must be shut off while starting, turning, slowing or stopping.
- Use sufficient spray volume, a minimum of 10 gallons per acre, to provide uniform coverage of the treated areas and to allow proper dispersion and suspension of the product in the spray tank.
- Prior to and during application, continuous agitation is necessary to keep the product in suspension. Agitate spray tank contents by mechanical or hydraulic means; *do not use air agitation.* Note: If a by-pass or return line is used, it should terminate at the bottom of the tank to minimize foaming.
- Nozzle screens should be 50 mesh or larger.
- Best results are obtained if Bromacil/Diuron 40/40 is applied to bare ground. If dense populations of hard-to-kill weed species are present, control of these weeds prior to application of Bromacil/Diuron 40/40 is recommended. If weeds are present at the time of application, tank mixtures with foliar active herbicides are recommended (refer to the Tank Mixture Specific Guidelines section of this label for guidelines on using Bromacil/Diuron 40/40 in a tank mixture).

SPRAY PREPARATION

Mixing in Water – Fill tank half full with water. Start agitation system and while continuing to add water, add Bromacil/Diuron 40/40 and each additional component of any tank-mix separately. Be sure to agitate the entire time.

Test for Mixing with Other Herbicides – Determine the tank mixture partner(s) compatibility with Bromacil/Diuron 40/40 by following the directions below. If the testing procedure shows the mixture to be compatible, Bromacil/Diuron 40/40 may be used in the tank mixture.

1. Put 1 pint of water into a quart jar with a tightly sealing lid.
2. In a separate container, combine 2 teaspoons of Bromacil/Diuron 40/40 with 2 tablespoonfuls of water, mix thoroughly and add to the water.
3. Close the jar and shake well.
4. If additional herbicides are to be used in the mixture, follow steps two and three above for each additional herbicide.
5. Once all components of the tank mix are combined in the test jar, watch the mixture for several seconds and then check again in 30 minutes. If mixture does not separate, foam, gel or become lumpy, it may be used.

Mixing in Liquid Fertilizer – A fertilizer solution may be used in the spray mixture. Use the procedure above to test for compatibility before full-scale mixing, but in Step 1, in place of the water, use the liquid fertilizer.

If the above procedure indicates the desired mixture will be compatible, prepare the tank mixture as follows:

1. Add the fertilizer solution to the spray tank first.
2. In a separate container, mix the required amount of Bromacil/Diuron 40/40 with water to form a slurry that can be poured.
3. With the agitator running, slowly add the slurry to the tank and mix thoroughly.

SPRAY TANK CLEAN OUT
Thoroughly clean all traces of Bromacil/Diuron 40/40 from application equipment immediately after use. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Dispose of the equipment wash water by applying it to a use-site listed on this label.

VERIFICATION OF SAFE ROTATIONAL USE IN ARID CLIMATES
In arid climates (areas that experience 10 inches of rainfall or less in a year) or areas that have experienced drought conditions for one or more years, a field bioassay should be conducted prior to planting any desired crop(s). The bioassay may consist of a test strip of the crop and should cross the entire field, including high and low lying portions. If a test strip of the crop(s) intended for production is not successfully grown to maturity, it may be necessary for the two-year crop rotation interval to be extended.

WEED RESISTANCE TO HERBICIDES
Weeds may become resistant to any herbicide if an herbicide is used in the same field repeatedly over several years. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product with a different mode of action.

The following suggestions will assist in managing herbicide resistance:
- It may be necessary to change cropping practices within and between crop seasons. For example, using a combination of tillage, retreatment, tank-mixtures and/or sequential herbicide applications that have different modes of action.
- Preventing weeds from going to seed (by mowing, tilling, etc.) will prevent the spread of resistant plants.
- Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

INTEGRATED PEST MANAGEMENT
This product may be used as part of an Integrated Pest Management (IPM) program such as biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

SPRAY DRIFT
Use best practices to avoid drift to all other crops and non-target areas. Do not apply when conditions favor drift from target areas. The interaction of many equipment- and weather-related factors determine the potential for spray drift. Avoiding spray drift at the application site is the responsibility of the applicator. The applicator must follow the most restrictive precautions to avoid drift, including those found in this labeling as well as applicable state and local regulations and ordinances. A drift control agent may reduce drift, however, it may also decrease weed control.

Make aerial or ground applications only when the wind speed is less than or equal to 10 miles per hour. Do not make aerial or ground applications into temperature inversions. Apply with medium or coarser spray (according to ASAE standard 572) for standard nozzles.

For ground applications: When applying to crops, apply with nozzle height no more than 2 feet above the ground or crop canopy. When applying to non-crop areas, use the lowest nozzle height consistent with safety and efficacy. Direct spray into target vegetation.

For aerial applications (rights-of-way only): The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The boom length must not exceed 75% of the wingspan or 90% of rotor blade diameter. Use upwind swath displacement. When applying to rights of way, apply at a minimum safe altitude above the area being treated. Do not apply by air if sensitive non-target crops are within 100 feet of the application site.

WEEDS CONTROLLED

ANNUALS

Barnyardgrass	*Echinochloa crus-galli*
Brome, downy (cheatgrass)	*Bromus tectorum*
Chickweed, common	*Stellaria media*
Chickweed, mouseear	*Cerastium vulgatum*
Clovers (annual)	*Trifolium spp.*
Filaree	*Erodium spp.*
Fleabane, flaxleaved (hairy)	*Conyza bonariensis*
Foxtail	*Setaria spp.*
Goatweed	*Scoparia dulcis*
Groundsel	*Senecio spp.*
Horseweed (marestail)	*Conyza candadensis*
Johnsongrass	*Sorghum halepense*
Junglerice	*Echinochloa colona*
Kochia	*Kochia scoparia*
Lambsquarter	*Chenopodium album*
Lettuce, wild	*Lactuca serriola*
Mustard, wild	*Brassica kaber*
Natalgrass (red top)	*Rhynchelytrum repens*
Nightshade (annual)	*Solanum spp.*
Pigweed	*Amaranthus spp.*
Pineappleweed	*Matricaria matricariodes*
Puncturevine, common	*Tribulus terrestris*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scraba*
Ragweed, common	*Ambrosia artemisifolia*
Sandbur (sandspur)	*Cenchrus spp.*
Shepherdspurse	*Capsella bursa-pastoris*
Sowthistle, annual	*Sonchus oleraceus*
Spanishneedles	*Bidens pilosa*
Thistle, Russian	*Salsola australis*

PERENNIALS
(Maximum rates and repeat treatments)

Balsamapple vine (seedling)	*Momordica charantia*
Bermudagrass	*Cynodon dactylon*
Drymary	*Drymaria spp.*
Guineagrass	*Panicum maximum*
Milkweed vine (strangler)	*Morrenia odorata*
Quackgrass	*Agropyron repens*
Vines (seedlings)	

Note: Partial control of perennials usually occurs with a single treatment; repeat applications are required to control perennials. Control of perennials may be improved by cultivation prior to treatment; otherwise, avoid working the soil as long as weed control continues otherwise effectiveness of the treatment may be reduced. Multiple applications may improve control of hard-to-kill weeds.

CITRUS

NOTE: Bromacil/Diuron 40/40 use rates listed on this label are for broadcast treatments. For band treatments, use proportionately less.

Bromacil/Diuron 40/40 may be applied as a broadcast or band treatment beneath and/or between trees. Be sure to review the specific use instructions for use in your State (below) before using this product.

Important considerations for use of Bromacil/Diuron 40/40 on Citrus:

- Following treatment, temporary yellowing of citrus leaves may occur.
- When spraying, avoid contact of spray with leaves or fruit.
- Do not use on soils with less than 1% organic matter as injury to citrus trees may result.
- Do not use on poorly drained soils, gravelly soils or thinly covered or exposed subsoils.
- Do not use on diseased or stressed trees.
- Do not use on trees planted in irrigation furrows.
- Do not use in citrus groves interplanted with other desirable trees or plants or in areas where roots of desirable trees or plants may extend as injury to desirable trees or plants may result.
- Do not use in home citrus plantings.
- When making multiple applications in a single growing season, do not apply at less than 60-day intervals when making multiple applications to trees less than 4 years old or 80-day intervals to trees 4 years old and older. A maximum of two applications of product per year is permitted. (Refer to State Specific Use Instructions for Florida for exceptions).
- Bromacil/Diuron 40/40 may be applied at any time of the year provided rainfall or overhead irrigation is available to activate the herbicide, preferably just before or just after weeds have germinated.
- Do not apply this product in a way that will contact worker or other persons, either directly or through drift.

STATE SPECIFIC USE INSTRUCTIONS

CALIFORNIA, ARIZONA

Trees Established for at least Three Years: Best results occur when applied in late fall or early winter, but before winter annuals become well established. Application should be made after the first fall or early winter rains have settled the soil.

- For the initial treatment, apply 4-5 pounds Bromacil/Diuron 40/40 per acre on coarse soils containing 1-2% organic matter and 5-6 pounds per acre on fine soils or soils with organic matter of 2 1/2% or more.
- Alternatively, apply 3-4 pounds per acre in the fall and repeat at 2-4 pounds per acre in the spring.
- When treating to control groundsel or puncturevine, use the highest rate allowed by this label. These rates will also suppress low density stands of bermudagrass and yellow nutsedge. Repeat annually for best results.
- *Do not exceed 6 pounds per acre per year.*

FLORIDA

The use of Bromacil/Diuron 40/40 is prohibited for weed control in non-bedded citrus groves located on any permeable, better drained soil identified in the intended site of application. Permeable, better drained soils which occur in citrus producing areas of the state including unnamed soils and soils with characteristics of quartzipsamments, and the following soil series classifications:

Adamsville	Dade	Orsino
Archbold	Florahome	Palm Beach
Astatula	Fort Meade	Paola
Bahiahonda	Gainesville	Satellite
Broward	Lake	St. Augustine
Canaveral	Lakewood	St. Lucie
Candler	Neilhurst	Tavares
Cocoa	Orlando	

Treated areas may be planted to citrus trees one year after the last Bromacil/Diuron 40/40 application. Do not replant to other crops within two years after the last Bromacil/Diuron 40/40 application as plant injury may result.

Application Instructions

In Florida, apply Bromacil/Diuron 40/40 as a band treatment only *using a properly calibrated fixed-boom power sprayer.* **Do not use Trunk to Trunk.**

NOTE: All use rates of Bromacil/Diuron 40/40 are expressed for broadcast treatments. For band treatments as required in Florida, use proportionately less.

Flatwood, Florida Area Only:

The maximum single application rate is 16 lbs. Bromacil/Diuron 40/40 (6.4 lbs a.i. diuron/A per year and 6.4 lbs. a.i. bromacil/A per year).

The maximum annual application rate is 16 lbs. Bromacil/Diuron 40/40 (6.4 lbs a.i. diuron/A per year and 6.4 lbs. a.i. bromacil/A per year).

Trees Established Less than Four Years: For control of annual weeds, apply 2 to 4 pounds of Bromacil/Diuron 40/40 per treated acre as needed to maintain weed control. Do not apply more than 6 pounds per treated acre during any 6 month period nor more than 8 pounds per treated acre during the first year. The minimum retreatment interval is 60 days. Do not make more than 2 applications per year.

Trees Established Four or More Years: Apply 4 to 8 pounds per treated acre. Do not make more than 2 applications per year. The minimum retreatment interval is 80 days.

All Florida Areas (except Flatwood):

The maximum single application rate is 8 lbs. Bromacil/Diuron 40/40 (3.2 lbs a.i. diuron/A per year and 3.2 lbs. a.i. bromacil/A per year).

The maximum annual application rate is 16 lbs. Bromacil/Diuron 40/40 (6.4 lbs a.i. diuron/A per year and 6.4 lbs. a.i. bromacil/A per year).

Trees Established Less than Four Years: For control of annual weeds, apply 2 to 4 pounds of Bromacil/Diuron 40/40 per treated acre as needed to maintain weed control. Do not apply more than 6 pounds per treated acre during any 6 month period nor more than 8 pounds per treated acre during the first year. The minimum retreatment interval is 60 days. Do not make more than 2 applications per year.

Trees Established Four or More Years: Apply up to 4 lbs Bromacil/Diuron 40/40 per treated acre. Do not make more than 2 applications per year. The minimum retreatment interval is 80 days.

Annual Weeds Controlled

Annual clovers	Lambsquarter
Barnyardgrass	Natalgrass (red top)
Chickweed	Nightshade (annual)
Cheatgrass	Pigweed
Crabgrass	Pineappleweed

Filaree	Puncturevine
Fleabane	Purslane
Florida pusley	Ragweed
Foxtail	Russian thistle
Goatweed	Sandbur (sandspur)
Groundsel	Shepherdspurse
Horseweed	Sowthistle (annual)
Johnsongrass (seedling)	Spanish needles
Junglerice	Wild lettuce
Kochia	Wild mustard

Perennial Weeds Controlled

Balsamapple vine (seedling)	Guineagrass
Bermudagrass	Milkweed (strangler)
Heartleaf	Quackgrass
Drymary	Vine (seedling)

Note: Use the highest rates allowed by this label for best control of perennial weeds listed on this label. Partial control of perennial weeds can result with only a single treatment of Bromacil/Diuron 40/40. Repeat applications are required (in season and/or annually) for best control of the perennial weeds on this label. Control of perennials may be improved by cultivation prior to treatment, otherwise, avoid working the soil as long as weed control continues or else effectiveness of the treatment may be reduced.

LOUISIANA

Trees Established for at least Three Years:

- Make a single application of 2-4 pounds per acre on coarser soils (sands, loamy sands, sandy loams) and 4-6 pounds per acre on finer soils (silt loams, clay loams, or soils with organic matter of 2 1/2% or more).
- Alternatively, make two applications per year at rates of 2 pounds per acre on coarser soils and 3 pounds per acre on finer soils; make the second application when needed to maintain weed control.
- For maximum suppression of perennials, use the highest rate allowable by this label.
- Do not apply more than 6 pounds per acre per year.

TEXAS

Trees Established Less than One Year:

- Apply 2-4 pounds Bromacil/Diuron 40/40 per acre as needed to maintain weed control.
- A second application may be made when needed to maintain weed control, however do not apply at less than 60-day intervals.
- Do not apply more than 6 pounds per acre per year.

Trees Established One or Two Years:

- Apply 2-4 pounds Bromacil/Diuron 40/40 per acre.
- A second application may be made when needed to maintain weed control, however do not apply more than 6 pounds per acre per year.

Trees Established Three or More Years:

- Make one to two applications per year as needed to maintain weed control.
- Use 2-4 pounds per acre on coarser soils (sands, loamy sands, sandy loams) and 4-6 pounds per acre on finer soils (silt loams, clay loams, or soils with organic matter of 2 1/2% or more).
- Use the higher rate for maximum suppression of perennials.
- Do not use more than 6 pounds per acre per year.

NON-AGRICULTURAL USES

Use Restrictions – State of Florida

In Florida, the use of Bromacil/Diuron 40/40 (bromacil + diuron) is prohibited in Hardee, Highland, Polk, Orange and Lake Counties. For Non-Agricultural Usage in all other areas of the state, do not apply more than 16 pounds of Bromacil/Diuron 40/40 per acre per year. This amount corresponds to 6.4 pounds of bromacil and 6.4 pounds of diuron, the active ingredients in Bromacil/Diuron 40/40. The maximum allowable use rate for bromacil is 6.4 pounds per acre per year inclusive of all bromacil formulations.

Instructions for Non-Agricultural Uses of Bromacil/Diuron 40/40

For general weed control in uncultivated non-agricultural areas (for example: airports, highway, railroad and utility rights-of-way, sewage disposal areas), uncultivated non-crop producing areas (for example: farmyards, fuel storage areas, fence rows, barrier strips) and outdoor industrial sites (for example: lumberyards, pipelines and tank farms).

Combination with other herbicides broadens the spectrum of weeds controlled. In addition, total vegetation control can be achieved with higher rates of Bromacil/Diuron 40/40 plus residual-type companion herbicides.

To improve the control of emerged weeds, add surfactant at 0.25% by volume.

Do NOT apply this product to:

- Open water (such as creeks, estuaries, lakes, reservoirs, rivers, streams or salt water bays);
- When water is present in fresh water wetlands (such as bogs, marshes, potholes or swamps);
- Saltwater marshes within tidal areas;
- Ditches, banks along waterways or impervious substrates; or,
- Areas near desirable plants where roots of these plants may extend.

Application Information

Apply Bromacil/Diuron 40/40 using a properly calibrated fixed-boom power sprayer with sufficient spray volume (minimum of 10 gallons per acre) to provide uniform coverage of the treated area and to allow proper dispersion and suspension of the product in the spray tank. All use rates of Bromacil/Diuron 40/40 are expressed for broadcast treatments. For band treatments, use proportionately less.

- Apply a maximum of two applications per year.
- The minimum retreatment interval is 90 days.
- A maximum of 12 pounds active ingredient bromacil per year is allowed.
- A maximum of 12 pounds diuron active ingredient is allowed per year in areas of high rainfall or dense vegetation. A maximum of 8 pounds diuron active ingredient is allowed in all other areas.

Notes for Non-Agricultural Uses:

- For small areas, a hand sprayer or sprinkling may be used. When preparing to a small area, 1/4 cupful of Bromacil/Diuron 40/40 per 200 sq. ft. is approximately 15 pounds per acre.
- Use a spray volume of at least 40 gallons per acre to ensure uniform coverage.
- Do not apply to sites which have roots of desirable plants growing into the treatment zone as plant injury or death may occur.
- Do not apply to hard or impervious soils, water saturated soils or to any surface that does not allow the herbicide to be moved into the soil horizon with moisture. Unusually heavy rainfall shortly after application may move the product off-target to the lowest surrounding point

and cause plant injury or death.

- If herbicide treated soil is disturbed by any physical or mechanical means, the herbicide barrier is disrupted and the likelihood of non-performance may increase. For best performance results, make sure the treatment area is stable after the application for the desired weed control period.

Application Timing

Apply Bromacil/Diuron 40/40 as a preemergence spray prior to or during the rainy season when weeds are actively germinating or growing. Moisture is required to activate and move Bromacil/Diuron 40/40 into the root zone of weeds for preemergence control. For best preemergence weed control, apply prior to rainfall and weed germination.

In arid regions of the Western U.S., to ensure adequate moisture for activation and even dispersion of the herbicide in the soil profile, Bromacil/Diuron 40/40 should be applied several weeks prior to the fall freeze or shortly after spring thaw to coincide with periods of higher seasonal moisture. *Do not treat frozen or saturated soils, or soils that are non-receptive to percolation.*

Retreatments of Bromacil/Diuron 40/40 may be made when annual weeds and grasses reappear on sites where weed growth has been controlled. Apply 4-6 pounds of Bromacil/Diuron 40/40 per acre.

Apply a maximum of 2 applications per year. The minimum retreatment interval is 90 days.

Application Rates

Apply Bromacil/Diuron 40/40 at the rates indicated by weed type in the tables below. When applied at lower rates, Bromacil/Diuron 40/40 provides short-term control of the weeds listed; when applied at higher rates, weed control is extended.

Note: Use the higher levels of the dosage ranges listed when applying on adsorptive soils (for example, those high in organic matter or carbon).

For areas of high rainfall or dense vegetation the maximum single application rate is 30 pounds Bromacil/Diuron 40/40 per acre. This amount corresponds to 12 pounds of bromacil and 12 pounds of diuron, the active ingredients in Bromacil/Diuron 40/40. For all other areas, the maximum single application rate is 20 pounds Bromacil/Diuron 40/40 per acre. This amount corresponds to 8 pounds of bromacil and 8 pounds of diuron per acre.

Weeds Controlled

Bromacil/Diuron 40/40 effectively controls the following broadleaf weeds and grasses when applied at the rates shown.

Broadleaf Weeds – 6 to 8 pounds per acre

Clovers (annual)	*Trifolium spp.*
Fiddleneck	*Amsinckia intermedia*
Filaree	*Erodium spp.*
Knapweed, diffuse	*Centaurea diffusa*
Lambsquarter, common	*Chenopodium album*
Lettuce, prickly	*Lactuca serriola*
Mustards	*Brassica spp.*
Pigweed	*Amaranthus spp.*
Ragweed	*Ambrosia spp.*
Sunflower, common	*Helianthus annuus*
Thistle, Russian	*Salsola iberica*

Broadleaf Weeds – 8 to 12 pounds per acre

Carrot, wild	*Caudus carota*
Dandelion, common	*Taraxacum officinale*
Dock, curly	*Rumex crispus*
Knapweed, spotted	*Centaurea maculosa*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*
Marestail, common (horseweed)	*Conyza canadensis*
Parsnip, wild	*Pastinaca sativa*
Plantain	*Plantago spp.*
Puncturevine	*Tribulus terrestris*
Spurge	*Euphorbia spp.*
Thistle, milk	*Silybum marianum*
Yarrow, common	*Achillea millefolium*

Broadleaf Weeds – 12 to 16 pounds per acre

Cinquefoil, common	*Potentilla Canadensis*
Goldenrod	*Solidago spp.*
Milkweed, common	*Asclepias syriaca*

Grasses – 6 to 8 pounds per acre

Barley, foxtail	*Hordeum jubatum*
Brome	*Bromus spp.*
Cheat	*Bromus secalinus*
Cupgrass, Prairie	*Eriochloa contracta*
Foxtail	*Setaria spp.*
Oat, wild	*Avena fatua*
Ryegrass, Italian	*Lolium multiflorum*
Quackgrass	*Agropyron repens*
Wheatgrass, intermediate	*Agropyron intermedium*

Grasses – 8 to 12 pounds per acre

Bahiagrass	*Paspalum notatum*
Crabgrass	*Digitaria spp.*
Goosegrass	*Eleusine indica*
Rye	*Secale cereale*
Vaseygrass	*Paspalum urvillei*

Grasses – 12 to 16 pounds per acre

Bluegrass	*Poa spp.*
Dropseed, sand*	*Sporobolus cryptandrus*
Fescue	*Festuca spp.*
Saltgrass*	*Distichlis spp.*

*Note: Best control of Saltgrass and Sand Dropseed is achieved from a Spring application prior to plant green-up.

For control of hard-to-kill perennials such as bermudagrass (*Cynodon dactylon*), bouncingbet (*Saporaria officinalis*), dogbane (*Apocynum spp.*), Johnsongrass (*Sorghum halepense*), and nutsedge (*Cyperus spp.*) apply 19-30 pounds per acre (***except in Florida***).

For extended control of annual weeds and partial control of perennials such as bermudagrass and nutsedge, apply 10-18 pounds per acre. In areas of high rainfall (40 inches or more per year) and/or dense vegetation (greater than 90% weed ground cover) apply 19 to 30 pounds of product (except in Florida). Use the higher Bromacil/Diuron 40/40 rates on adsorptive soils (high in organic matter or carbon). Best results occur when application is made just before weed emergence or in the early stages of weed growth.

SPECIAL USES

UNDER ASPHALT AND CONCRETE PAVEMENT

Important Precautions when Applying Under Asphalt

- Do not use Bromacil/Diuron 40/40 under pavement in residential properties such as driveways, or in recreational areas, including jogging or bike paths, tennis courts, or golf cart paths.
- Desirable plants may be injured if their roots extend into treated areas or if planted in treated areas.

Application Information

Bromacil/Diuron 40/40 may be used to control weeds under asphalt and concrete pavement such as that used in parking lots, highway shoulders, median strips, roadways and other industrial sites.

Bromacil/Diuron 40/40 should only be used in an area that has been prepared according to good construction practices. Use sufficient water to ensure uniform coverage, generally 100 gallons per acre. Agitate the tank continuously to keep Bromacil/Diuron 40/40 in suspension.

Application Timing

Bromacil/Diuron 40/40 should be applied immediately before paving to avoid lateral movement of the herbicide as a result of soil movement due to rainfall or mechanical means.

Application Rates

Apply Bromacil/Diuron 40/40 at 17 to 30 pounds per acre. Use a higher rate on hard to control weeds and/or for longer term weed control.

Tank Mixtures

To control a broader spectrum of weeds, or for an extended period of weed control, a tank mixture of Bromacil/Diuron 40/40 at 7 to 15 pounds per acre plus Oust® XP at 4 to 8 ounces per acre may be used.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.
PESTICIDE STORAGE: Store product in original container only.
PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et. al. v. EP, C01-0132C, (W.D. WA). For further information, please refer to http://www.epa.gov/espp/wtc.

TERMS AND CONDITIONS OF USE

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

WARRANTY DISCLAIMER

Alligare, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent consistent with applicable law, Alligare, LLC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Alligare, LLC or the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer.

LIMITATION OF REMEDIES

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Alligare, LLC's election, one of the following:
(1) Refund of purchase price paid by buyer or user for product bought, or
(2) Replacement of amount of product used

Alligare, LLC shall not be liable for losses or damages resulting from handling or use of this product unless Alligare, LLC is promptly notified of such loss or damage in writing. In no case shall Alligare, LLC be liable for consequential, incidental or special damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Alligare, LLC or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner. Buyer accepts this product subject to the foregoing limitations of warranty and of liability.

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