

59639-193

1/29/2013

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

JAN 29 2013

Dr. Robert Hamilton  
Senior Regulatory Scientist  
Registration & Regulatory Affairs  
Valent U.S.A. Corporation  
1600 Riviera Avenue, Suite 200  
Walnut Creek, CA 94596

Subject: Label Amendment – Adding a Restriction and a Precaution to Non-Crop Use Section  
Product Name: V-10233 Herbicide  
Current Valent EPA Registration Number: 59639-193  
Previous K-I Chemical Registration Number: 63588-93  
Submission Date: September 6, 2012; Submitted by Landis International  
Decision Number: 470396

Dear Dr. Hamilton:

The label amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable.

**The following formatting issues should be addressed on the final printed label:**

- First Aid Boxes - A bullet should be added to the third item in the "If in eyes" text appearing in the First Aid box on page 5. Text box lines should be also be added to each section of the First Aid box. The First Aid box on page 29 should be identical to the First Aid box that appears on page 5.
- Tank Mixes Header - The TANK MIXES header appearing at the bottom of the warranty box on page 8 should be relocated to appear in box at the very bottom of page 8.
- Field Corn Spring Preplant Burndown Directions - A period should be added to the last sentence appearing in the third paragraph in these directions on page 15.
- Jar Test - Check the formatting on page 24 for item #2. The text should be continuous and appear as one sentence.

Please note that while no additional data is being requested at this time, any marketing claims made on the pesticide label must be substantiated by data maintained in your files. If data supporting marketing claims made on the product label is not available then those claims must be removed.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a

**SEE NEXT PAGE**

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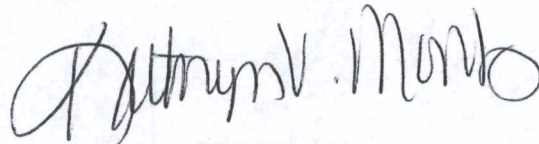
Page 2 of 2  
Adding a Restriction and a Precaution to Non-Crop Use Section  
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website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Products shipped after 18 months from the date on this notice or the next printing of the master label whichever occurs first, must bear the new label language. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of this product constitutes acceptance of these conditions. As required, you must submit one copy of the final printed label before the product is released for shipment.

If you have any questions please contact Michael Walsh by phone at (703) 308-2972 or via email at "walsh.michael@epa.gov".

Sincerely,

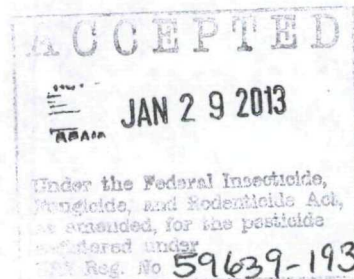


Kathryn V. Montague  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505P)

Enclosure

GROUP 14 15 HERBICIDE

[MASTER LABEL]



# V-10233 Herbicide

FOR RESIDUAL CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN FIELD CORN, FALLOW LAND, NON CROP AREAS AROUND FARMS, ORCHARDS AND VINEYARDS AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS.

Active Ingredient	By Wt.
Flumioxazin*.....	33.5%
Pyroxasulfone**.....	42.5%
Other Ingredients .....	24.0%
Total .....	100.0%

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isindole-1,3(2H)-dione

\*\*

3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole

V-10233 Herbicide is a water dispersible granule containing 76% active ingredient.

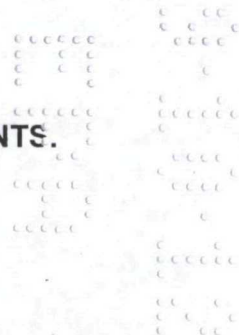
CAS No. 447399-55-5

KEEP OUT OF REACH OF CHILDREN

## CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET WEIGHT



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**[Sub Label 1]**

**V-10233 Herbicide**

**For residual control and/or suppression of certain weeds use in field corn, fallow land, non-crop areas around farms, orchards and vineyards.**



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GROUP	14	15	HERBICIDE
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# V-10233 Herbicide

FOR RESIDUAL CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS USE IN FIELD CORN, FALLOW LAND, NON CROP AREAS AROUND FARMS, ORCHARDS AND VINEYARDS AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS.

Active Ingredient	By Wt.
Flumioxazin* .....	33.5%
Pyroxasulfone** .....	42.5%
Other Ingredients .....	24.0%
Total .....	100.0%

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione

\*\*3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole

V-10233 Herbicide is a water dispersible granule containing 76% active ingredient.

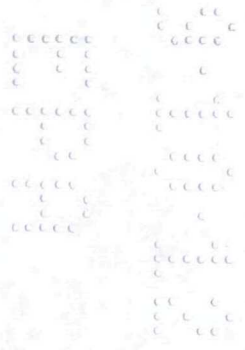
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KEEP OUT OF REACH OF CHILDREN

## CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

## NET WEIGHT



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**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION**

Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation.

<b>FIRST AID</b>	
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>HOT LINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact <b>800-892-0099</b> for emergency medical treatment information.</p>	

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (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.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Some of the 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.

**Applicators and other handlers must wear:** long-sleeved shirt and long pants,

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chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes and socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are 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 thoroughly with soap and water after handling and 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.

**ENVIRONMENTAL HAZARDS:**

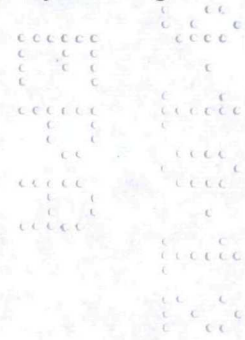
This product is toxic to non-target plants and aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and should be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

**Ground Water Advisory:** This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisories:** Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

The product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce potential loading of pyroxasulfone and its degradation product, 5-difluoromethoxy-1H-pyrazol-4-yl) methanesulfonic acid (M1), from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.





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**DIRECTIONS FOR USE**

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

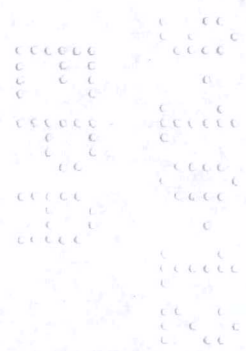
Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**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 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 waterproof material, shoes plus socks.



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**DISCLAIMER, RISKS OF USING THIS PRODUCT,  
LIMITED WARRANTY  
AND LIMITATION OF LIABILITY**

**IMPORTANT:** Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

**RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of K-I Chemical. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

K-I Chemical shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

**LIMITED WARRANTY**

K-I Chemical warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, K-I CHEMICAL MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of K-I Chemical or Seller is authorized to make or create any other express or implied warranty.

**LIMITATION OF LIABILITY**

To the extent consistent with applicable law, K-I Chemical or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF K-I CHEMICAL OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF K-I CHEMICAL OR SELLER, THE REPLACEMENT OF THE PRODUCT.

**PROMPT NOTICE OF CLAIM**

To the extent consistent with applicable law allowing such requirements K-I Chemical must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is later, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify K-I Chemical of any claims, in such period, it shall be barred from obtaining any remedy.

**NO AMENDMENTS**

K-I Chemical and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

**TANK MIXES**

**NOTICE:** Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product.

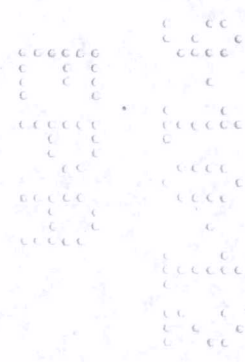
### RESISTANCE MANAGEMENT RECOMMENDATIONS

V-10233 Herbicide is a premix of Group 14 and Group 15 herbicides. Any weed population may contain or develop plants naturally resistant to V-10233 Herbicide and other Group 14 and/or Group 15 herbicides. Weed species with acquired resistance to Group 14 and/or Group 15 herbicides may eventually dominate the weed population if Group 14 plus Group 15 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by V-10233 Herbicide or other Group 14 and/or Group 15 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of V-10233 Herbicide or other target site of action Group 14 and/or Group 15 herbicides that might have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

For further information or to report suspected resistance, you may call the following toll-free number:  
**1-800-682-5368**



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## PRODUCT INFORMATION

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V-10233 Herbicide provides residual control of susceptible weeds in minimum and no-tillage field corn. It provides additional burndown activity when used as part of a burndown program in minimum and no-tillage field corn. V-10233 Herbicide can be applied as part of a fall burndown program for residual control of susceptible winter annuals.

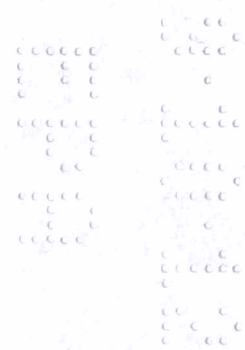
Weeds controlled by V-10233 Herbicide are listed in Table 1. Application rates of V-10233 Herbicide vary depending on soil type and organic matter; refer to Table 2.

Moisture is necessary to activate V-10233 Herbicide in soil for residual weed control. When adequate moisture is not received after a V-10233 Herbicide application, weed residual control may be improved by irrigation with at least 1/2 inch of water. If emerged weeds are controlled by cultivation, residual weed control will be reduced.

Burndown program: Apply V-10233 Herbicide as part of a burndown program to actively growing weeds. Applying V-10233 Herbicide under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply V-10233 Herbicide when weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. V-10233 Herbicide is most effective when applied under warm sunny conditions.

[Rainfastness: V-10233 Herbicide is rainfast one hour after application. Do not apply V-10233 Herbicide if rain is expected within one hour of application or postemergence efficacy may be reduced.]

Soil Characteristics: Application of V-10233 Herbicide to soils with high organic matter and/or high clay content may require higher dosages than soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.



**Table 1. Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide**

Common Name	Scientific Name	C = Control S = Suppression		
		3.0 oz/A [All soil textures Organic Matter <3%] [Preemergence followed by postemergence program - no glyphosate or ALS resistant weeds.]	3.75 oz/A [Coarse and medium textured soil Organic Matter 3 to 5%] [ Preemergence followed by postemergence program - glyphosate or ALS resistant weeds or heavy weed pressure.]	4.5 oz/A [Fine textured soils Organic Matter 3 to 5%] [Non GMO program - or heavy weed pressure.]
<b>BROADLEAF WEED SPECIES</b>				
Bristly Starbur	<i>Acanthospermum hispidum</i>	S	S	S
Carpetweed	<i>Mollugo verticillata</i>	C	C	C
<b>Chickweeds</b>				
Common	<i>Stellaria media</i>	C	C	C
Mouseear	<i>Cerastium vulgatum</i>	C	C	C
Coffee Senna	<i>Cassia occidentalis</i>	S	C	C
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>	S	S	S
Dandelion	<i>Taraxacum officinale</i>	C	C	C
Eclipta	<i>Eclipta prostrate</i>	C	C	C
Eveningprimrose, Cutleaf	<i>Oenothera laciniata</i>	C	C	C
Florida Beggarweed	<i>Desmodium tortuosum</i>	S	C	C
Florida Pusley	<i>Richardia scabra</i>	C	C	C
Golden Crownbeard	<i>Verbesina encelioides</i>	S	C	C
Hairy Indigo	<i>Indigofera hirsuta</i>	S	C	C
Hemp Sesbania	<i>Sesbania exaltata</i>	C	C	C
Henbit	<i>Lamium amplexicaule</i>	C	C	C
Jimsonweed	<i>Datura stramonium</i>	C	C	C
Kochia	<i>Kochia scoparia</i>	C	C	C
Lambsquarters, Common	<i>Chenopodium album</i>	C	C	C
Little Mallow	<i>Malva parviflora</i>	C	C	C
Marestail/Horseweed	<i>Conyza canadensis</i>	C	C	C
<b>Morningglories<sup>1</sup></b>				
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integruscula</i>	S	C	C
Ivyleaf	<i>Ipomoea hederacea</i>	S	C	C
Red/Scarlet	<i>Ipomoea coccinea</i>	S	C	C
Tall	<i>Ipomoea purpurea</i>	S	C	C
Mustard, Wild	<i>Brassica kaber</i>	C	C	C
Palmer Amaranth	<i>Amaranthus palmeri</i>	C	C	C

(Continued)

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(Continuation)

**Table 1. Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide**

Common Name	Scientific Name	C = Control S = Suppression		
		3.0 oz/A	3.75 oz/A	4.5 oz/A
<b>BROADLEAF WEED SPECIES</b>		[All soil textures Organic Matter <3%]	[Coarse and medium textured soil Organic Matter 3 to 5%]	[Fine textured soils Organic Matter 3 to 5%]
		[Preemergence followed by postemergence program - no glyphosate or ALS resistant weeds.]	[ Preemergence followed by postemergence program - glyphosate or ALS resistant weeds or heavy weed pressure.]	[Non GMO program - or heavy weed pressure.]
Nightshades				
Black	<i>Solanum nigrum</i>	C	C	C
Eastern Black	<i>Solanum ptycanthum</i>	C	C	C
Hairy	<i>Solanum sarrachoides</i>	C	C	C
Pigweeds				
Redroot	<i>Amaranthus retroflexus</i>	C	C	C
Smooth	<i>Amaranthus hybridus</i>	C	C	C
Spiny Amaranth	<i>Amaranthus spinosus</i>	C	C	C
Tumble	<i>Amaranthus albus</i>	C	C	C
Prickly Sida (Teaweed)	<i>Sida spinosa</i>	C	C	C
Puncturevine	<i>Tribulus terrestris</i>	C	C	C
Purslane, Common	<i>Portulaca oleracea</i>	C	C	C
Radish, Wild	<i>Raphanus raphanistrum</i>	C	C	C
Redmaids	<i>Calandrinia ciliata</i> var <i>menziessii</i>	C	C	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C	C	C
Smallflower Morningglory	<i>Jacquemontia tamnifolia</i>	C	C	C
Spotted Spurge	<i>Euphorbia maculate</i>	C	C	C
Ragweeds				
Common Ragweed	<i>Ambrosia artemisiifolia</i>	S	C	C
Ragweed, Giant	<i>Ambrosia trifida</i>	S	S	S
Russian Thistle	<i>Salsola iberica</i>	S	C	C
Smartweeds				
Ladysthumb	<i>Polygonum persicaria</i>	S	S	S
Pennsylvania	<i>Polygonum pennsylvanicum</i>	S	S	S
Spurred Anoda	<i>Anoda cristata</i>	S	C	C
Tropic Croton	<i>Croton glandulosus</i>	S	C	C
Velvetleaf	<i>Abutilon theophrasti</i>	C	C	C
Venice Mallow	<i>Hibiscus trionum</i>	C	C	C
Waterhemp				
Common	<i>Amaranthus rudis</i>	C	C	C
Tall	<i>Amaranthus tuberculatus</i>	C	C	C
Wild Buckwheat	<i>Polygonum convolvulus</i>	S	S	S
Wild Poinsettia	<i>Euphorbia heterophylla</i>	S	C	C
Wormwood, Biennial	<i>Artemisia biennis</i>	S	S	S

(Continued)

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(Continuation)

**Table 1. Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide**

Common Name	Scientific Name	C = Control S = Suppression		
		3.0 oz/A	3.75 oz/A	4.5 oz/A
<b>GRASS WEED SPECIES</b>		[All soil textures Organic Matter <3%]	[Coarse and medium textured soil Organic Matter 3 to 5%]	[Fine textured soils Organic Matter 3 to 5%]
		[ Preemergence followed by postemergence program - no glyphosate or ALS resistant weeds.]	[ Preemergence followed by postemergence program - glyphosate or ALS resistant weeds or heavy weed pressure.]	[Non GMO program - or heavy weed pressure.]
Barnyardgrass	<i>Echinochloa crus-galli</i>	C	C	C
Bluegrass, Annual	<i>Poa annua</i>	C	C	C
Cheat	<i>Bromus secalinus</i>	C	C	C
Crabgrass				
Large	<i>Digitaria sanguinalis</i>	C	C	C
Smooth	<i>Digitaria ischaemum</i>	C	C	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C	C	C
Downy Brome	<i>Bromus tectorum</i>	C	C	C
Foxtails				
Giant	<i>Setaria faberi</i>	C	C	C
Green	<i>Setaria viridis</i>	C	C	C
Yellow	<i>Setaria glauca</i>	C	C	C
Goosegrass	<i>Eleusine indica</i>	C	C	C
Johnsongrass (seedling)	<i>Sorghum halepense</i>	C	C	C
Lovegrass, California	<i>Eragrostis diffusa</i>	C	C	C
Panicums				
Fall	<i>Panicum dichotomiflorum</i>	C	C	C
Texas	<i>Panicum texanum</i>	C	C	C
Red Rice	<i>Oryza sativa</i>	C	C	C
Ryegrass				
Italian	<i>Lolium multiflorum</i>	C	C	C
Rigid	<i>Lolium rigidum</i>	C	C	C
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	C	C	C

\*Morningglory species are not adequately controlled on fine soils or soils with greater than 3% organic matter.

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## APPLICATION RATES

Apply V-10233 Herbicide early pre-plant or prior to planting.

Application rates of V-10233 Herbicide vary depending on soil type and organic matter, soil textures are defined as:

Coarse and Medium	Fine
[sandy loam,] loamy sand, loamy, silt-loam, silt, clay, sandy clay, sandy clay loam)	silty clay, silty clay loam, clay, clay loam

## USE RESTRICTIONS AND PRECAUTIONS TO FIELD CORN

- Do not exceed the maximum seasonal rate of 4.5 oz/A.
- **Use only on no-till or minimum tillage fields** where last years crop residue has not been incorporated into the soil.
- Do not use on popcorn, sweet corn or corn grown for seed.
- Do not use an adjuvant when applied after weed emergence in field corn.
- Do not apply to frozen or snow covered soil.
- Do not apply this product when weather conditions favor spray drift from treated areas.
- Do not apply during low-level inversion conditions, including fog.
- When applying by air, observe drift management restrictions and precautions listed under "aerial application".
- Any tillage operation after the application or mechanical incorporation into the soil will reduce residual weed control.
- [Do not use on soils with less than 1% organic matter unless an activation rainfall has occurred between application and planting.] [Do not plant corn within 30 days of Fierce application in the states of AR, LA, MS, OK or TX]
- [Do not plant corn within 30 days of Fierce application in the states of AL, GA and FL, unless a strip tillage operation has occurred between application and planting.]

## DIRECTIONS FOR USE IN FIELD CORN (NO TILL AND MINIMUM TILL)

Apply V-10233 Herbicide at 3 [to 4.5] oz/A to field corn (no till and minimum till) early pre-plant. Corn must be planted between 7 and 30 days after application unless the application is made as part of a fall burndown program. Preemergence application of V-10233 Herbicide provide residual control of weeds listed in Table1, Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide.

### Burndown Use Directions – For Preplant Applications in Field Corn

V-10233 Herbicide, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many weeds where field corn will be planted directly into the residue of the previous year. See Directions for Use in Fall and Spring Preplant Burndown and Fallow Seedbed Programs in Field Corn for rates and timing of applications. For control of emerged weeds, V-10233 Herbicide must be applied with an appropriate burndown tank mix partner. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for recommended application pressure and recommended adjuvant systems.



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**TANK MIXES**

V-10233 Herbicide may be tank mixed with 2,4-D LVE, atrazine, Basis®, Dicamba, Express®, glyphosate, Hornet®, paraquat, Python®, d, Resolve®, simazine, , Weedmaster® for pre-plant burndown applications. Refer to tank mix partner's label for adjuvant recommendations. Refer to tank mix product labels for specific recommendations

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**DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN PRIOR TO TO FIELD CORN**

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Apply V-10233 Herbicide at 3 to 4.5 oz/A in the fall to provide residual weed control in fields that will be planted the following spring with field corn. Weeds controlled or suppressed by residual activity are listed in Table 1, Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide. Application rates of V-10233 Herbicide vary depending on soil type and organic matter. If weeds have emerged at the time of application, use V-10233 Herbicide in combination with a labeled burndown herbicide.

Weeds controlled by burndown and residual activity are listed in Table 2, Weeds Controlled by Fall and Spring Preplant Burndown Programs.

Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2) or up until planting, whichever comes first. V-10233 Herbicide can be used in a fall burndown or fallow seedbed program outside of Regions 1 and 2, however the length of residual control may be variable. Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Fall Application Regions:

Region 1: Alabama, Arkansas, Georgia, Kentucky, Mississippi, Oklahoma, Tennessee and Virginia

Region 2: Delaware, Kansas, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota, West Virginia and Wisconsin



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**Table 2. Fall and Spring Preplant Burndown Programs for Field Corn**

Herbicide	Rates
<b>Program 1<sup>1</sup></b>	
V-10233 Herbicide <b>Plus</b>	3 to 4.5 oz/A
Glyphosate <b>Plus</b>	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of Roundup PowerMAX)
2,4-D <b>Plus</b>	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D 4 LVE)
NIS + AMS	0.5% v/v + 17 lbs/100 gallons of water

**OR**

<b>Program 2<sup>1</sup></b>	
V-10233 Herbicide <b>Plus</b>	3 to 4.5 oz/A
Glyphosate <b>Plus</b>	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of Roundup PowerMAX)
COC <sup>2</sup> or NIS + AMS	1pt./A or 0.5% v/v + 17 lbs/100 gallons of water

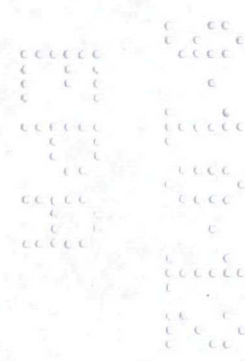
**OR**

<b>Program 3<sup>1</sup></b>	
V-10233 Herbicide <b>Plus</b>	3 to 4.5 oz/A
2,4-D LVE <b>Plus</b>	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D 4 LVE)
COC	1 pt/A

**OR**

<b>Program 4</b>	
V-10233 Herbicide <b>Plus</b>	3 to 4.5 oz/A
Ignite	32 to 40 fl oz/A

<sup>1</sup>Dicamba (BANVEL®/CLARITY®), at 0.188 lb ai/A (6 fl oz/A of BANVEL 4) can be added to Programs 1, 2 & 3 to assist in the control emerged broadleaves such as marestail, dandelions and other tough winter annuals. Refer to dicamba label for rotational restrictions. Also see CROP ROTATIONAL INTERVAL section of V-10233 Herbicide product label for additional information. <sup>2</sup>Crop oil concentrate has been found to increase glyphosate burndown of emerged cutleaf, evening primrose and Carolina geranium.



**Table 3. Weeds Controlled by Fall and Spring Preplant Burndown Programs**

WEEDS CONTROLLED <sup>1</sup>		POSTEMERGENCE				RESIDUAL
COMMON NAME	SCIENTIFIC NAME	Program 1	Program 2	Program 3	Program 4	
<b>Weeds 3 inches or less</b>						
Chickweed						
Common	<i>Stellaria media</i>	Yes	Yes	No	Yes	Yes
Mouseear	<i>Cerastium vulgatum</i>	Yes	Yes	No	Yes	Yes
Dandelion	<i>Taraxacum officinale</i>	Yes	No	Yes	Yes	Yes
Henbit	<i>Lamium amplexicaule</i>	Yes	Yes	Yes	No	Yes
Kochia	<i>Kochia scoparia</i>	Yes	Yes	Yes	No	Yes
Marestail/Horseweed	<i>Conyza canadensis</i>	Yes	Yes <sup>2</sup>	Yes	Yes	Yes
Groundsel, Cressleaf	<i>Senecio glabellus</i>	Yes	Yes	Yes	No	Yes
Purple Deadnettle	<i>Lamium purpureum</i>	Yes	Yes	Yes	No	Yes
<b>Weeds 12 inches or less</b>						
Carolina Geranium	<i>Geranium carolinianum</i>	Yes	Yes	Yes	No	Yes
Eveningprimrose, Cutleaf <sup>3</sup>	<i>Oenothera laciniata</i>	Yes	Yes	Yes	No	Yes
Mustard, Wild	<i>Brassica kaber</i>	Yes	Yes	Yes	Yes	Yes
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	Yes	Yes	Yes	Yes	Yes

<sup>1</sup>Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.

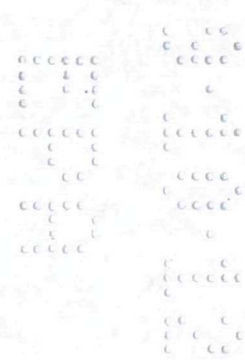
<sup>2</sup>Program 2 will not control emerged glyphosate resistant marestail/horseweed.

<sup>3</sup>Program 1 must not be used to control cutleaf eveningprimrose that are nearing 12 inches in height or are past the rosette stage.

Programs 2 or 3 must not be used to control cutleaf eveningprimrose that are 12 inches or less and in the rosette stage.

**TANK MIX**

V-10233 Herbicide, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where field corn will be planted directly into a stale seedbed, cover crop or in previous crop residues. For control of emerged weeds, choose the most appropriate tank mix partner from Table 4, Tank Mix Partners for Control of Emerged Weeds. To ensure thorough coverage, use a minimum of 15 gals of spray solution per acre. Refer to tank mix partner's label for recommended application pressure. All V-10233 Herbicide tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 to 2 pt/A or a non-ionic surfactant at 0.25% v/v.



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**Table 4. Tank Mix Partners for Control of Emerged Weeds**

TANK MIX PARTNER	TARGET WEEDS <sup>1</sup>
2,4-D	Marestail Giant Ragweed Dandelion
2,4-D + Glyphosate	Chickweed Marestail Giant Ragweed Dandelion Annual Grass
Paraquat	Annual Grasses Henbit
Ignite	General burndown, including marestail
Glyphosate	General Burndown
Select <sup>®</sup> Max	Annual Grasses
Weedmaster <sup>®</sup>	Marestail Giant Ragweed Dandelion

<sup>1</sup>Refer to tank mix product labels for specific recommendations for control of emerged weeds present.

**DIRECTIONS FOR USE IN FALLOW LAND**

Apply V-10233 Herbicide, at 3 to 4.5 oz/A, in combination with labeled burndown herbicides to control emerged weeds and provides residual weed control. Weeds controlled by residual activity are listed in Table 1, Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide.

**DIRECTIONS FOR USE TO MAINTAIN BARE GROUND  
ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS**

Use V-10233 Herbicide to maintain bare ground on non-crop areas of farms, orchards and vineyards, for non-selective vegetation control and to maintain bare ground on non-crop areas that must be kept weed free. Follow all directions as outlined in "PRODUCT INFORMATION" section of this label.

V-10233 Herbicide offers residual and postemergence control of susceptible broadleaf and grass weeds as well as an additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. V-10233 Herbicide can be tank mixed with the herbicides listed in Table 5, Tank Mix Combinations to Maintain Bare Ground on Non-Crop Areas, for increased residual or postemergence control. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase. V-10233 Herbicide rates of 3 to 4.5 oz/A are required to provide residual control of the weeds listed in Table 1, Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide.

**USE PRECAUTIONS**

- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply to ditch banks.

**PREEMERGENCE APPLICATION**

Apply 3 to 4.5 oz/A of V-10233 Herbicide per broadcast acre as a preemergence application. Make the preemergence (to weed emergence) applications of V-10233 Herbicide to a weed-free soil surface. Preemergence applications of V-10233 Herbicide must be completed prior to weed emergence. Moisture is necessary to activate V-10233 Herbicide on soil for residual weed control. Dry weather following application of V-10233 Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, V-10233 HERBICIDE will control susceptible germinating weeds.

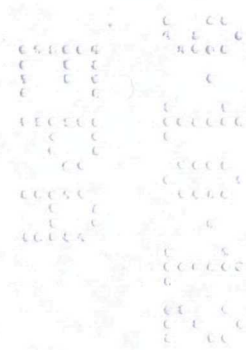
**POSTEMERGENCE APPLICATION**

Apply 3 to 4.5 oz/A of V-10233 Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances V-10233 Herbicide activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of V-10233 Herbicide. Emerged weeds are controlled postemergence with V-10233 Herbicide, however, translocation of V-10233 Herbicide within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with V-10233 Herbicide occurs when applied in combination with a surfactant to weeds less than 2 inches in height. A tank mix partner must not be used in combination with V-10233 Herbicide for the postemergence control of weeds larger than 2 inches.

**IMPORTANT:** Completely read and follow the label of any potential tank mix partner with V-10233 Herbicide. When using tank mixtures, use conditions must be in accordance with the most restrictive of the label limitations and precautions on either herbicide label.

**Table 5. Tank Mix Combinations to Maintain Bare Ground on Non-Crop Areas**

Glyphosate	2,4-D	Rely®	Paraquat
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### CROP ROTATIONAL INTERVAL

The following rotational crops may be planted after applying V-10233 Herbicide at the listed rate. Planting earlier than the recommended rotational interval may result in crop injury.

V-10233 Herbicide RATES	CROPS	ROTATION INTERVALS
3.0 oz/A	Field Corn (minimum and no-till)	7 days
	Field Corn (conventionally tilled)	30 days
	Root crops	12 months
Up to 4.5 oz/A	Field Corn (conventionally tilled)	30 days
	Root crops	12 months

Restriction: Only crops listed on the label may be planted after pyroxasulfone application. Root crops may be planted after 12 months.

### APPLICATION INFORMATION

#### SPRAYER PREPARATION

Before applying V-10233 Herbicide, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonyleurea and phenoxy herbicides, (i.e., Classic® and 2,4-D respectively) are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply V-10233 Herbicide. If two or more products were tank mixed prior to V-10233 Herbicide application, follow the most restrictive cleanup procedure.

#### MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. If a drift retardant is to be used, add 10 lbs of spray grade ammonium sulfate per 100 gallons of spray solution.
3. To ensure a uniform spray mixture, pre-slurry the required amount of V-10233 Herbicide with water prior to addition to the spray tank. Use a minimum of 1 gallon of water per 10 oz of V-10233 Herbicide.
4. While agitating, slowly add the pre-slurried V-10233 Herbicide to the spray tank. Agitation should create a rippling or rolling action on the water surface.
5. If tank mixing V-10233 Herbicide with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
6. Add any required adjuvants.
7. Fill spray tank to desired level with water. **Agitation should continue until all spray solution has been applied.**
8. Mix only the amount of spray solution that can be applied the day of mixing. V-10233 HERBICIDE should be applied within 6 hours of mixing.

### APPLICATION METHOD

V-10233 Herbicide is applied by ground or by air. Application equipment should be clean and in good repair. Nozzles should be uniformly spaced on boom and frequently checked for accuracy.

#### 1. GROUND APPLICATION

Apply V-10233 Herbicide, and V-10233 Herbicide tank mixes, with ground equipment using standard commercial sprayers equipped with flat fan (preplant or preemergence applications only) designed to deliver the desired spray pressure and spray volume.

#### 2. AERIAL APPLICATION

Spray drift away from the site of application may cause damage to non-target vegetation. To minimize drift, apply the largest droplet size consistent with uniform coverage and satisfactory weed control. To obtain satisfactory application and avoid drift, the following directions must be observed:

- Do not apply during low-level inversion conditions (including fog), when winds are gusty or under other conditions that favor drift.
- Do not spray when wind velocity is less than 2 mph or more than 10 mph.
- Do not apply this product by air within 40 ft of non-target plants including non-target crops.
- Do not apply this product by air within 100 ft of emerged cotton crops.
- Do not apply this product by air within 40 ft of streams, wetlands, marshes, ponds, lakes and reservoirs.

### CARRIER VOLUME AND SPRAY PRESSURE

#### 1. GROUND APPLICATION:

**Preemergence Application (Conventional Tillage):** To ensure uniform coverage, use 10 to 30 gals. of spray solution per acre for conventional tillage applications. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for preemergence herbicide application.

**Burndown Application (Prior to Crop Emergence):** To ensure thorough coverage in burndown applications, use 15 to 60 gals. spray solution per acre. Use 20 to 60 gals. per acre if dense vegetation or heavy crop residue is present. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application. Do not use flood jet nozzles

#### 2. AERIAL APPLICATION:

When used as part of a burndown weed control program, apply V-10233 Herbicide in 7 to 10 gallons of water per acre. Application at less than 7 gallons per acre may provide inadequate control. When used for preemergence weed control, apply V-10233 Herbicide in 5 to 10 gallons of water per acre. The higher gallonage applications generally afford more consistent weed control. 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.

### NOZZLE SELECTION AND ORIENTATION

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, such as diaphragm type nozzles, to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.

### ADJUVANTS AND DRIFT CONTROL ADDITIVES

Refer to tank mix partner's label for adjuvant recommendation. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all

other information appearing on the additive label.

**Spray Drift Management**

The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all factors involved in minimizing drift potential.

*Importance of Droplet Size*

The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Use nozzle types and nozzle arrangements that will provide maximum coverage and minimize the potential for off target movement of spray particles. Droplet size for both ground and air applications must be in the "medium" size category as defined in the August 1999 ASAE S572 publication entitled, "Spray Nozzle Classification by Drop Spectra". Refer to that publication for additional information. Regardless of droplet size, if applications are made improperly or under unfavorable environmental conditions off target movement will occur. (see Wind, Temperature and Humidity, and Temperature Inversion sections in this label).

*Controlling Droplet Size*

Volume: Use high flow rate nozzles that produce medium droplets to apply the highest practical spray volume.

Pressure: Use the lower spray pressures recommended for the nozzle and do not exceed the manufacturer's recommended pressure. 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 air-stream 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. Do not use air inducing or flood type nozzles.

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.

Ground Boom Application Height: Applications should not be made at a height greater than 4 feet above the top of the largest plants. Making applications at the lowest possible height 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*

Variable wind speeds with changing directions may pose the largest potential for drift damage if crops other than rice are adjacent to the field to be sprayed. Drift potential is lowest between wind speeds of 2 to 8 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided if wind speed is 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 drift

*Temperature and Humidity*

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation, but they still should remain within the medium droplet size category. Droplet evaporation is most severe when conditions are both hot and dry.



*Temperature Inversions*

Do not spray at times when spray particles may be entrained into a temperature inversion layer. If inversion conditions are suspected, consult with local weather services before making an application. Applications must not occur during 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 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*

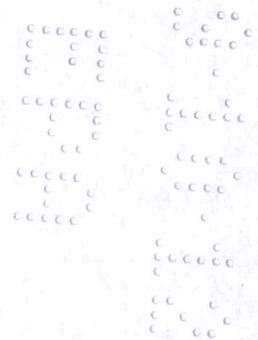
The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (i.e., when wind is blowing away from the sensitive areas).

**SPRAYER CLEANUP**

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following V-10233 Herbicide application. After V-10233 Herbicide is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank, add 1 gallon of 3% household ammonia (or equivalent) for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. To enhance removal of V-10233 Herbicide from the spray system, add a tank cleaner such as "Valent Tank Cleaner", in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) for 8 hours before flushing the system for a minimum of 15 minutes.
4. Drain tank completely.
5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
6. Remove all nozzles and screens and rinse them in clean water.

Thoroughly clean spray equipment, including all tanks, hoses, booms, screens and nozzles, before it is used to apply postemergence pesticides. Equipment with V-10233 Herbicide residue remaining in the system may result in crop injury to the subsequently treated crop.



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## ADDITIVES

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When an adjuvant is to be used with V-10233 Herbicide, Valent USA Corporation recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Either a crop oil concentrate or methylated seed oil which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant at 0.25% v/v, may be used when applying V-10233 Herbicide as part of a burndown program. Some tank mix partners, such as Roundup PowerMAX®, are formulated with sufficient adjuvants and do not require the addition of a crop oil concentrate, methylated seed oil or non-ionic surfactant when tank mixed with V-10233 Herbicide. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds such as cutleaf eveningprimrose and Carolina geranium. Verify mixing compatibility qualities by a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with either a crop oil concentrate, methylated seed oil or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for a crop oil concentrate, a methylated seed oil or a non-ionic surfactant.

### JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND V-10233 HERBICIDE

When using V-10233 Herbicide and an adjuvant, such as in stale seed bed or reduced tillage situations, a jar test should be performed before mixing commercial quantities of V-10233 Herbicide, when using V-10233 Herbicide for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt of the water to a quart jar. The water should be from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 g of V-10233 Herbicide to the quart jar for every 3 oz of V-10233 Herbicide per acre being applied (2 g if 6 oz/A is the desired V-10233 Herbicide rate), gently mix until product goes into suspension.
3. Add 60 ml (4 Tbsps or 2 fl oz) of the crop oil or methylated seed oil to the quart jar or 1 ml of non-ionic surfactant if it is being used in place of oil, gently mix.
4. If nitrogen is being used, add 16 ml (1 Tbsp or 0.5 oz) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant should be questioned:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.

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## CROP FAILURE

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If the crop treated with V-10233 Herbicide is lost due to a catastrophe, such as hail or other forms of inclement weather. Field corn can be planted 7 days after a V-10233 Herbicide application, provided a minimum of 1 inch of rainfall/irrigation has occurred between V-10233 Herbicide application and replanting. Crop injury may occur if these restrictions are not followed.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

### PESTICIDE STORAGE

Keep pesticide in original container.

Store in a cool, dry, secure place.

Do not put formulation or dilute spray solution into food or drink containers.

Do not contaminate food or foodstuffs.

Do not store or transport near feed or food.

Not for use or storage in or around the home.

For help with any spill, leak, fire or exposure involving this material, call day or night **(800) 892-0099**.

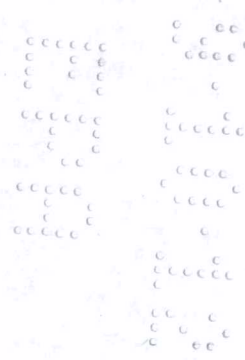
### PESTICIDE DISPOSAL

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

### CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.



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Banvel is a registered trademark of MicroFlo  
Clarity is a registered trademark of MicroFlo  
Ignite is a registered trademark of Bayer Corporation  
Outlook is a registered trademark of BASF Corporation for dimethanamid herbicide  
Roundup is a registered trademark of Monsanto Co. for glyphosate herbicide  
Roundup Ready is a registered trademark of Monsanto Co.  
Roundup Power Max is a registered trademark of Monsanto Co.  
Weedmaster is a registered trademark of BASF Corporation

Manufactured for:

**K-I Chemical U.S.A INC.**  
11 Martine Avenue, Suite 1460  
White Plains, NY, 10606  
Phone: 914-682-8934  
Fax: 914-682-9050

Made in U.S.A.

EPA Reg. No. 63588 - 93  
EPA Est.

063588-0093.20100816.V10233  
20100526



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# [Sub Label 2]

**V-10233 Herbicide**

**For control and/or suppression of certain weeds to maintain bare ground on non-crop areas.**



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GROUP 14 15 HERBICIDE

# V-10233 Herbicide

FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS TO MAINTAIN BARE GROUND ON NON-CROP AREAS.

Active Ingredient	By Wt.
Flumioxazin* .....	33.5%
Pyroxasulfone** .....	42.5%
Other Ingredients .....	24.0%
Total .....	100.0%

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione

\*\*3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole

V-10233 Herbicide is a water dispersible granule containing 76% active ingredient.

CAS No. 447399-55-5

KEEP OUT OF REACH OF CHILDREN

## CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET WEIGHT



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**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION**

Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation.

**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, preferable 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 **800-892-0099** for emergency medical treatment information.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (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.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Some of the 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.

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes and socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are 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 thoroughly with soap and water after handling and 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.

### ENVIRONMENTAL HAZARDS:

This product is toxic to non-target plants and aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and should be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

**Ground Water Advisory:** This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisories:** Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

The product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce potential loading of pyoxasulfone and its degradation product, 5-difluoromethoxy-1H-pyrazol-4-yl) methanesulfonic acid (M1), from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

### DIRECTIONS FOR USE

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

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 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.

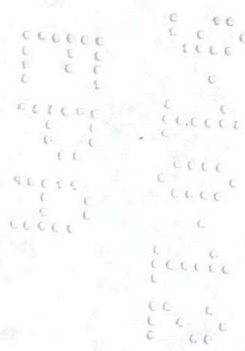
PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, chemical resistant gloves made of waterproof material, shoes plus socks.

### 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 Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

Do not enter or allow others to enter treated areas until sprays have dried.



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**DISCLAIMER, RISKS OF USING THIS PRODUCT,  
LIMITED WARRANTY  
AND LIMITATION OF LIABILITY**

**IMPORTANT:** Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

**RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of K-I Chemical. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

K-I Chemical shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

**LIMITED WARRANTY**

K-I Chemical warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, K-I CHEMICAL MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of K-I Chemical or Seller is authorized to make or create any other express or implied warranty.

**LIMITATION OF LIABILITY**

To the extent consistent with applicable law, K-I Chemical or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF K-I CHEMICAL OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF K-I CHEMICAL OR SELLER, THE REPLACEMENT OF THE PRODUCT.

**PROMPT NOTICE OF CLAIM**

To the extent consistent with applicable law allowing such requirements K-I Chemical must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is later, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify K-I Chemical of any claims, in such period, it shall be barred from obtaining any remedy.

**NO AMENDMENTS**

K-I Chemical and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

**TANK MIXES**

**NOTICE:** Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product.

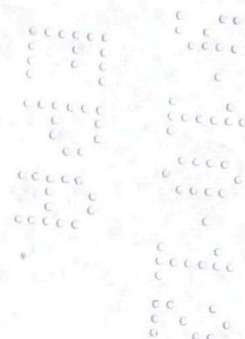
### RESISTANCE MANAGEMENT RECOMMENDATIONS

V-10233 Herbicide is a premix of Group 14 and Group 15 herbicides. Any weed population may contain or develop plants naturally resistant to V-10233 Herbicide and other Group 14 and/or Group 15 herbicides. Weed species with acquired resistance to Group 14 and/or Group 15 herbicides may eventually dominate the weed population if Group 14 plus Group 15 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by V-10233 Herbicide or other Group 14 and/or Group 15 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of V-10233 Herbicide or other target site of action Group 14 and/or Group 15 herbicides that might have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

For further information or to report suspected resistance, you may call the following toll-free number: **800-682-5368**.



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## V-10233 Herbicide Application

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Weeds Controlled or suppressed by Residual Activity of V-10233 Herbicide.....Table 1

## Directions for Use to Maintain Bare Ground Non-Crop

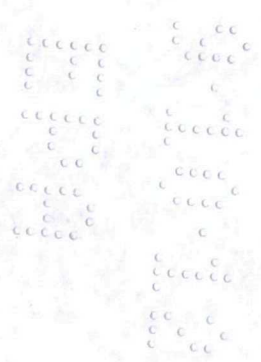
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**Application**.....

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## PRODUCT INFORMATION

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V-10233 Herbicide is a preemergence and early postemergence herbicide for control of selected grass and broadleaf weeds in and around ornamental woody shrubs, deciduous trees and conifers grown outdoors in containers or in the field (in ground) and to maintain bare ground non-crop areas.

Weeds controlled by V-10233 Herbicide are listed in Table 1, Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide.

Preemergence weed control with V-10233 Herbicide is most effective when applied to clean, weed free soil surfaces. The most effective postemergence weed control with V-10233 Herbicide occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Follow specific site use directions prior to using surfactant as certain over the top applications restrict the use of the surfactants.

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## PRODUCT USE RESTRICTIONS AND PRECAUTIONS FOR NON-CROP AREAS

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- Do not rotate to food or feed crops after application to bare ground on noncrop areas.
- Do not apply in enclosed greenhouse structures.
- Do not apply when weather conditions favor spray drift from treated areas.
- Do not incorporate into soil after application.
- Do not apply this product through any type of irrigation system.
- Do not apply to turfgrass.
- Do not apply to areas with adjacent non-dormant pome or stone fruit crops.
- Treatment of powdery, dry soil or light sandy soil, or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water. Do not apply when these soil and environmental conditions are present.

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## APPLICATION INFORMATION

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### SPRAYER PREPARATION

Before applying V-10233 Herbicide, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonylurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply V-10233 Herbicide. Follow the most restrictive cleanup procedure If two or more products were tank mixed prior to V-10233 Herbicide application.

### MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. If a drift retardant is to be used, add 10 lbs of spray grade ammonium sulfate per 100 gallons of spray solution.
3. To ensure a uniform spray mixture, pre-slurry the required amount of V-10233 Herbicide with water prior to addition to the spray tank. Use a minimum of 1 gallon of water per 10 oz. of V-10233 Herbicide.
4. While agitating, slowly add the pre-slurried V-10233 Herbicide to the spray tank. Agitation should create a rippling or rolling action on the water surface.

5. If tank mixing V-10233 Herbicide with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
6. Add any required adjuvants.
7. Fill spray tank to desired level with water. **Agitation should continue until all spray solution has been applied.**
8. Mix only the amount of spray solution that can be applied the day of mixing. V-10233 HERBICIDE should be applied within 6 hours of mixing.

**APPLICATION METHOD**

V-10233 Herbicide is applied by ground or by air. Application equipment should be clean and in good repair. Nozzles should be uniformly spaced on boom and frequently checked for accuracy.

**1. GROUND APPLICATION**

Apply V-10233 Herbicide, and V-10233 Herbicide tank mixes, with ground equipment using standard commercial sprayers equipped with flat fan (preplant or preemergence applications only) designed to deliver the desired spray pressure and spray volume.

**2. AERIAL APPLICATION**

Spray drift away from the site of application may cause damage to non-target vegetation. To minimize drift, apply the largest droplet size consistent with uniform coverage and satisfactory weed control. To obtain satisfactory application and avoid drift, the following directions must be observed:

- Do not apply during low-level inversion conditions (including fog), when winds are gusty or under other conditions that favor drift.
- Do not spray when wind velocity is less than 2 mph or more than 10 mph.
- Do not apply this product by air within 40 ft of non-target plants including non-target crops.
- Do not apply this product by air within 100 ft of emerged cotton crops.
- Do not apply this product by air within 40 ft of streams, wetlands, marshes, ponds, lakes and reservoirs.

**CARRIER VOLUME AND SPRAY PRESSURE**

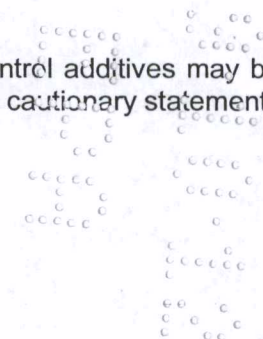
When used as part of a burndown weed control program, apply V-10233 Herbicide in 7 to 10 gallons of water per acre. Application at less than 7 gallons per acre may provide inadequate control. When used for preemergence weed control, apply V-10233 Herbicide in 5 to 10 gallons of water per acre. The higher gallonage applications generally afford more consistent weed control. 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.

**NOZZLE SELECTION AND ORIENTATION**

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, such as diaphragm type nozzles, to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.

**ADJUVANTS AND DRIFT CONTROL ADDITIVES**

Refer to tank mix partner's label for adjuvant recommendation. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.



## SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all factors involved in minimizing drift potential.

### *Importance of Droplet Size*

The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Use nozzle types and nozzle arrangements that will provide maximum coverage and minimize the potential for off target movement of spray particles. Droplet size for both ground and air applications must be in the "medium" size category as defined in the August 1999 ASAE S572 publication entitled, "Spray Nozzle Classification by Drop Spectra". Refer to that publication for additional information. Regardless of droplet size, if applications are made improperly or under unfavorable environmental conditions off target movement will occur. (see Wind, Temperature and Humidity, and Temperature Inversion sections in this label).

### *Controlling Droplet Size*

Volume: Use high flow rate nozzles that produce medium droplets to apply the highest practical spray volume.

Pressure: Use the lower spray pressures recommended for the nozzle and do not exceed the manufacturer's recommended pressure. 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 air-stream 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. Do not use air inducing or flood type nozzles.

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.

Ground Boom Application Height: Applications should not be made at a height greater than 4 feet above the top of the largest plants. Making applications at the lowest possible height 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*

Variable wind speeds with changing directions may pose the largest potential for drift damage if crops other than rice are adjacent to the field to be sprayed. Drift potential is lowest between wind speeds of 2 to 8 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided if wind speed is 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 drift.

### *Temperature and Humidity*

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation, but they still should remain within the medium droplet size category. Droplet evaporation is most severe when conditions are both hot and dry.

*Temperature Inversions*

Do not spray at times when spray particles may be entrained into a temperature inversion layer. If inversion conditions are suspected, consult with local weather services before making an application. Applications must not occur during 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 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*

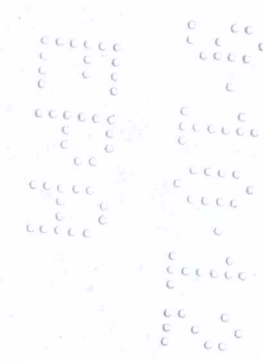
The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (i.e., when wind is blowing away from the sensitive areas).

**SPRAYER CLEANUP**

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following V-10233 Herbicide application. After V-10233 Herbicide is applied, the following steps must be used to clean the spray equipment:

- Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
- Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
- Top off tank, add 1 gallon of 3% household ammonia (or equivalent) for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. To enhance removal of V-10233 Herbicide from the spray system, add a tank cleaner such as "Valent Tank Cleaner", in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) for 8 hours before flushing the system for a minimum of 15 minutes.
- Drain tank completely.
- Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
- Remove all nozzles and screens and rinse them in clean water.

Thoroughly clean the spray equipment, including all tanks, hoses, booms, screens and nozzles, before it is used to apply postemergence pesticides. Equipment with V-10233 Herbicide residue remaining in the system may result in crop injury to the subsequently treated crop.





## ADDITIVES

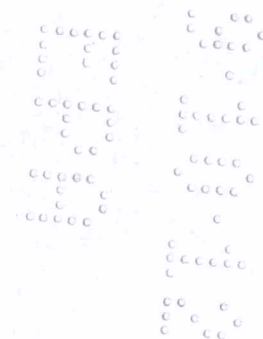
When an adjuvant is to be used with this product, Valent recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Mix V-10233 Herbicide with a crop oil concentrate that contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying V-10233 Herbicide as part of a postemergence weed control program. Verify the mixing compatibility by a jar test before using. Do not mix V-10233 Herbicide with a surfactant when applying over the top of dormant woody ornamentals or conifer trees.

A spray-grade nitrogen source (either ammonium sulfate at 2.0 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

### JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND V-10233 HERBICIDE

When using V-10233 Herbicide and an adjuvant, such as in stale seed bed or reduced tillage situations, a jar test should be performed before mixing commercial quantities of V-10233 Herbicide, when using V-10233 Herbicide for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt of the water to a quart jar. The water should be from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 g of V-10233 Herbicide to the quart jar for every 3 oz of V-10233 Herbicide per acre being applied (2 g if 6 oz/A is the desired V-10233 Herbicide rate), gently mix until product goes into suspension.
3. Add 60 ml (4 Tbsps or 2 fl oz) of the crop oil or methylated seed oil to the quart jar or 1 ml of non-ionic surfactant if it is being used in place of oil, gently mix.
4. If nitrogen is being used, add 16 ml (1 Tbsp or 0.5 oz) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant should be questioned:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.



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**Table 1. Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide**

Common Name	Scientific Name	C = Control S = Suppression
<b>BROADLEAF WEED SPECIES</b>		
Bristly Starbur	<i>Acanthospermum hispidum</i>	S
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweeds		
Common	<i>Stellaria media</i>	C
Mouseear	<i>Cerastium vulgatum</i>	C
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>	S
Dandelion	<i>Taraxacum officinale</i>	C
Eclipta	<i>Eclipta prostrate</i>	C
Eveningprimrose, Cutleaf	<i>Oenothera laciniata</i>	C
Florida Pusley	<i>Richardia scabra</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Lambsquarters, Common	<i>Chenopodium album</i>	C
Little Mallow	<i>Malva parviflora</i>	C
Marestail/Horseweed	<i>Conyza canadensis</i>	C
Nightshades		
Black	<i>Solanum nigrum</i>	C
Eastern Black	<i>Solanum ptycanthum</i>	C
Hairy	<i>Solanum sarrachoides</i>	C
Pigweeds		
Redroot	<i>Amaranthus retroflexus</i>	C
Smooth	<i>Amaranthus hybridus</i>	C
Spiny Amaranth	<i>Amaranthus spinosus</i>	C
Tumble	<i>Amaranthus albus</i>	C
Prickly Sida (Teaweed)	<i>Sida spinosa</i>	C
Puncturevine	<i>Tribulus terrestris</i>	C
Purslane, Common	<i>Portulaca oleracea</i>	C
Radish, Wild	<i>Raphanus raphanistrum</i>	C
Redmaids	<i>Calandrinia ciliata var menziessii</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Smallflower Morningglory	<i>Jacquemontia tamnifolia</i>	C
Spotted Spurge	<i>Euphorbia maculate</i>	C
Venice Mallow	<i>Hibiscus trionum</i>	C
Coffee Senna	<i>Cassia occidentalis</i>	C
Common Ragweed	<i>Ambrosia artemisiifolia</i>	C
Florida Beggarweed	<i>Desmodium tortuosum</i>	C
Golden Crownbeard	<i>Verbesina encelioides</i>	C
Hairy Indigo	<i>Indigofera hirsuta</i>	C
Hemp Sesbania	<i>Sesbania exaltata</i>	C
Jimsonweed	<i>Datura stramonium</i>	C

(Continued)

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(Continuation)

**Table 1. Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide**

Common Name	Scientific Name	C = Control S = Suppression
<b>BROADLEAF WEED SPECIES</b>		
Kochia	<i>Kochia scoparia</i>	C
Morningglories		
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	C
Ivyleaf	<i>Ipomoea hederacea</i>	C
Red/Scarlet	<i>Ipomoea coccinea</i>	C
Tall	<i>Ipomoea purpurea</i>	C
Mustard, Wild	<i>Brassica kaber</i>	C
Palmer Amaranth	<i>Amaranthus palmeri</i>	C
Ragweed, Giant	<i>Ambrosia trifida</i>	S
Russian Thistle	<i>Salsola iberica</i>	C
Smartweeds		
Ladysthumb	<i>Polygonum persicaria</i>	S
Pennsylvania	<i>Polygonum pennsylvanicum</i>	S
Spurred Anoda	<i>Anoda cristata</i>	C
Tropic Croton	<i>Croton glandulosus</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp		
Common	<i>Amaranthus rudis</i>	C
Tall	<i>Amaranthus tuberculatus</i>	C
Wild Buckwheat	<i>Polygonum convolvulus</i>	S
Wild Poinsettia	<i>Euphorbia heterophylla</i>	C
Wormwood, Biennial	<i>Artemisia biennis</i>	S
<b>GRASS WEED SPECIES</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Bluegrass, Annual	<i>Poa annua</i>	C
Cheat	<i>Bromus secalinus</i>	C
Crabgrass		
Large	<i>Digitaria sanguinalis</i>	C
Smooth	<i>Digitaria ischaemum</i>	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C
Downy Brome	<i>Bromus tectorum</i>	C
Foxtails		
Giant	<i>Setaria faberi</i>	C
Green	<i>Setaria viridis</i>	C
Yellow	<i>Setaria glauca</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass (seedling)	<i>Sorghum halepense</i>	C
Lovegrass, California	<i>Eragrostis diffusa</i>	C

(Continued)

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(Continuation)

**Table 1. Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide**

Common Name	Scientific Name	C = Control S = Suppression
<b>GRASS WEED SPECIES</b>		
Panicums		
Fall	<i>Panicum dichotomiflorum</i>	C
Texas	<i>Panicum texanum</i>	C
Red Rice	<i>Oryza sativa</i>	C
Ryegrass		
Italian	<i>Lolium multiflorum</i>	C
Rigid	<i>Lolium rigidum</i>	C
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	C

**DIRECTIONS FOR USE TO MAINTAIN BARE GROUND ON NON-CROP AREAS**

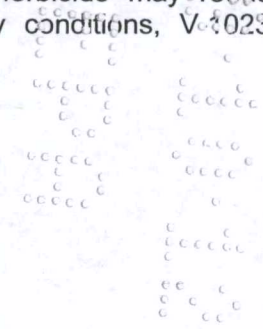
V-10233 Herbicide, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply V-10233 Herbicide only to:

- Bare ground under guardrails, pipelines, railroad beds, railroad yards and surrounding areas
- Bare ground in parking and storage areas, plant sites, substations, pumping stations, and tank farms
- Bare ground areas of airports, brickyards, industrial plant sites, lumber yards and military installations, and storage areas
- Bare ground around farm buildings and along ungrazed fencerows, wind breaks, and shelter belts
- Road surfaces, improved roadside areas and gravel shoulders

V-10233 Herbicide offers residual and postemergence control of susceptible broadleaf and grass weeds as well as an additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds listed in Table 1, Weeds Controlled or Suppressed by Residual Activity of V-10233 Herbicide. V-10233 Herbicide can be tank mixed with the herbicides listed in Table 2 for increased residual or postemergence control. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

**PREEMERGENCE APPLICATION**

Apply 10 oz of V-10233 Herbicide per broadcast acre as a preemergence application on all soil types (up to 5% organic matter). Make the preemergence (to weed emergence) applications of V-10233 Herbicide to a weed-free soil surface. Preemergence applications of V-10233 Herbicide must be completed prior to weed emergence. Moisture is necessary to activate V-10233 Herbicide on soil for residual weed control. Dry weather following application of V-10233 Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, V-10233 Herbicide will control susceptible germinating weeds.



**POSTEMERGENCE APPLICATION**

Apply 10 oz of V-10233 Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). The addition of an adjuvant enhances V-10233 Herbicide activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of V-10233 Herbicide. Emerged weeds are controlled postemergence with V-10233 Herbicide, however, translocation of V-10233 Herbicide within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with V-10233 Herbicide occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Use a a tank mix partner in combination with V-10233 Herbicide for the postemergence control of weeds larger than 2 inches. Recommended tank mix partners are listed in Table 2, Suggested Tank Mix Combinations For Non-Selective Vegetation Control.

**IMPORTANT:** Completely read and follow the label of any potential tank mix partner with V-10233 Herbicide. When using tank mixtures, use conditions must be in accordance with the most restrictive of the label limitations and precautions on either herbicide label.

**Table 2. Suggested Tank Mix Combinations For Non-Selective Vegetation Control**

2,4-D	hexazinone	picloram
Bromacil	imazapic	pramitol
Chlorsulfuron	imazapyr	prodiamine
Dicamba	metsulfuron methyl	simazine
Diuron	norfurazon	Sulfometuron methyl
Chlorpyralid	oryzalin	tebuthiuron
Glyphosate	pendimethalin	Triclopyr
Sulfentrazone	aminopyralid	topramazole

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

**PESTICIDE STORAGE**

Keep pesticide in original container.

Store in a cool, dry, secure place.

Do not put formulation or dilute spray solution into food or drink containers.

Do not contaminate food or foodstuffs.

Do not store or transport near feed or food.

Not for use or storage in or around the home.

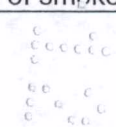
For help with any spill, leak, fire or exposure involving this material, call day or night **(800) 892-0099**.

**PESTICIDE DISPOSAL**

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

**CONTAINER HANDLING**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.



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EPA Reg. No. 63588 - 93  
EPA Est.

063588-0093.20100816.V10233  
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