

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 27, 2015

Bill Berti Manager, Regulatory Affairs Nichino America, Inc. 4550 New Linden Hill Road, Suite 501 Wilmington, DE 19808

Subject: Notification per PRN 98-10 – minor label changes Product Name: ET 2%SC Herbicide/Defoliant EPA Registration Number: 71711-25 Application Date: 7-7-15 Decision Number: 507233

Dear Mr. Berti:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please contact Erik Kraft by phone at 703-308-9358, or via email at <u>kraft.erik@epa.gov</u>.

Sincerely,

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Shaja Joyner, Product Manager 20 Fungicide and Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

Enclosure

### NOTIFICATION

### 71711-25

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

07/27/2015



GROUP 14 HERBICIDE

# ET<sup>®</sup> 2%SC Herbicide/Defoliant

A Nonselective Contact Herbicide for Broadleaf Weed Control

Alternate brand name: Venue<sup>®</sup> Herbicide A Nonselective Contact Herbicide for Tree, Nut, and Vine Crops

Alternate brand name: Octane<sup>®</sup> 2%SC Herbicide Octane Herbicide For Use In Nurseries and Ornamental Plantings; Sod farms; Christmas Trees; and Established Ornamental Turf

Alternate brand name: Edict<sup>®</sup> 2%SC IVM Herbicide Edict 2SC IVM Herbicide For Noncrop Weed Control and Industrial Vegetation Management

### ACTIVE INGREDIENT:

Pyraflufen-ethyl: Acetic acid,
[2-chloro-5-[4-chloro-5-(difluoromethoxy)-1-methyl-1H-pyrazol-3-yl]-4
-fluorophenoxy]-, ethyl ester
OTHER INGREDIENTS: 98.0%
TOTAL:
Contains 0.17 lb- pyraflufen-ethyl per gallon

EPA Reg. No. 71711-25

EPA Est. No. \_\_\_\_

### KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID					
If on skin       • Take off contaminated clothing.         or clothing       • Rinse skin immediately with plenty of water for 15-20 minutes.					
or clothing	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
	HOTLINE NUMBER				
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product, including human health concerns and medical emergencies, Yyou may also contact call 1-800-348-5832 for emergency medical treatment information. In case of fire or spills, information may be obtained by calling 1-800-424-9300.					

Net Contents:

Formulated and Packaged in U.S.A. for Active ingredient [manufactured in \_\_\_,] [formulated in \_\_\_,] [and] [packaged in \_\_\_\_\_

Nichino America, Inc. 4550 New Linden Hill Road Wilmington, DE 19808 888-740-7700 **Commented [JK2]:** An EPA PM requested this language on a different master label, and Nichino decided to updated each master label's hotline number language for consistency across brands

Commented [JK1]: Added a dash

**Commented [JK3]:** Based on US Customs regulations, Nichino is required to disclose country of origin. This gives Nichino the flexibility to provide the country of origin where the product is manufactured, formulated, and/or packaged.

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### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves

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

### **User Safety Recommendations**

Users should:

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

#### ENGINEERING CONTROLS

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

### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic invertebrates. This product may contaminate water through drift of spray in wind or via runoff events. Use care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not apply when weather conditions favor drift from treated areas.

### DIRECTIONS FOR USE

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

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

**Commented [JK4]:** Replaced outside set of parentheses with brackets because it is best to avoid nested parentheses (parentheses within parentheses)

### AGRICULTURAL USE REQUIREMENTS

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

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

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

Coveralls

- Chemical resistant gloves
- Shoes plus socks

### NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, or greenhouses. For other uses, including interiorscapes and other nonagricultural uses, do not enter treated areas without protective clothing until sprays have dried.

### **USE INFORMATION**

ET 2%SC Herbicide/Defoliant is\_designed for use as a contact herbicide for broadleaf weed control, defoliation, and desiccation and requires thorough coverage for complete broadleaf weed control, and defoliation/desiccation.

ET 2%SC Herbicide/Defoliant must be tank mixed with another foliar active broadleaf herbicide for complete control of most broadleaf weeds.

Do not apply ET 2%SC Herbicide/Defoliant through any type of irrigation system.

ET 2%SC Herbicide/Defoliant is rainfast one hour after application.

**Commented [JK5]:** Updated language for clarity

### ROTATIONAL CROP RESTRICTIONS

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Crop/Crop Group	Rotational/Plantback Intervals		<b>Commented [JK6]:</b> Reformatted the naming
Corn Cotton	0 days following application		convention of the crops in this table and in the crop boxes on pages 16, 18, 19, and 20
Grapes			
Olives			
Pome Fruits (Crop Group 11-10)			
Pomegranates			
Potatoes			
Soybean <del>s</del>			
Stone Fruits (Crop Group 12)			
Tree Nuts (Crop Group 14) Plus Pistachio			<b>Commented [JK7]:</b> Inadvertantly deleted from
Triticale; Wheat			previously stamped master label; Tolerance
Bulb Vegetables (Crop Group 3)			already established for pistachio
Cereal Grains (Crop Group 15, except corn,			
wheat, and triticale; see 0-day plantback interval			
above)			
Brassica (Cole) Leafy Vegetables Crops (Crop Group 5)	1 day following preplant burndown application		
Cucurbits Vegetables (Crop Group 9)			
Fruiting Vegetables (Crop Group 8) (Except			
Cucurbits)			
Leafy Vegetables (Crop Group 4) (Except			
Brassica Vegetables)			
Legumes Vegetables, Succulent or Dried (Crop			
Group 6)			
Oil <u>Sseeds</u> Group (Crop Group 20)			
Root and Tuber Vegetables (Crop Group 1,			
except potatoes; see 0-day plantback interval			
above)			
Sugarcane			
All other rotational crops	Do not plant for 30 days following the last	]	
	application of ET 2%SC Herbicide/Defoliant.		

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### WEEDS CONTROLLED

The following broadleaf weed species can be controlled or suppressed up to 4 inches in height or less or rosettes of 3 inches in diameter or less. Tank mixtures of ET 2%SC Herbicide/Defoliant with other labeled broadleaf herbicides may be needed for control of some weed species. Control may be reduced with weeds larger than 4 inches in height or 3 inches in diameter.

Alkaliweed*	Ladysthumb	Redmaid		Commented [JK8]: Added suppression of
Amaranth, Palmer <u>*</u>	Lambsquarters, common	Rocket, London		Alkaliweed
Amaranth, Spiny	Lettuce, prickly	Sesbania, hemp		
Bedstraw	Mallow, common	Shepherd's-purse		Commented [JK9]: Deleted Spiny amaranth
Beggartick, hairy	Malva spp.	Smartweed, Pennsylvania		
Beggarweed, Florida	Marestail <u>*</u> (suppression)	Smellmelon		
Bindweed, field	Milkthistle	Sowthistle, annual		
Buckwheat, wild	Morningglory, species	Spurge, leafy		
Canola	Mustard, wild <u>*</u> (suppression)	Sunflower, common		
Carpetweed	Nettle, stinging	Tansymustard, western		
Celery, wild	Nightshade, black	Thistle, Canada		
Chickweed	Nightshade, silverleaf	Thistle, Russian		Commented [JK10]: Added Silverleaf
Clover, white	Panicle willowweed	Toadflax, Dalmatian		nightshade
Cocklebur	Pigweed, redroot	Velvetleaf	(	- Ignonau
Cotton, volunteer (conventional,	Pigweed, smooth	Virginia-creeper		
GMO varieties)	Pineapple-weed	Waterhemp, common		
Dandelion, common	Poinsettia, wild	Waterhemp, tall		
Dock, curly	Poison-ivy			
Dollarweed	Potato, volunteer			
Eclipta	Prickly sida (teaweed)			
Eveningprimrose, cutleaf	Purslane, common			
Fleabane <u>*</u> (suppression)	Radish, wild			
Geranium, Carolina	Ragweed, common			
Henbit	Ragweed, giant			
Horsenettle <u>*</u> (suppression)				
Kochia				
*suppression				Commented [JK11]: Added asterisks in the
				table to note suppression of certain weeds:

### WEED RESISTANCE

Pyraflufen-ethyl, the active ingredient in this product, is a Group 14 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 14 herbicides. Such resistant weed plants may not be effectively managed using Group 14 herbicides but may be effectively managed utilizing another herbicide alone or in mixtures from a different Group and/or by using cultural or mechanical practices. However, a herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your local company representative, state cooperative extension service, professional consultants or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

### **BEST MANAGEMENT PRACTICES**

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is recommended. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance. Scouting after a herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in retarding the spread of resistant weed seed.

D-279 060215<u>-2</u> Page 5 of 29 table to note suppression of certain weeds: Alkaliweed Palmer amaranth Fleabane Horsenettle Marestail Wild mustard

### TANK MIXTURES

ET 2%SC Herbicide/Defoliant may be applied as a tankmix or in sequential application with other [harvest aid,] herbicide, fungicide, or insecticide products. Weather, crop conditions, or the presence of certain weeds, crop damaging insects, or diseases will indicate the inclusion of other pesticides in the application.

Note: It is recommended that the compatibility of ET 2%SC Herbicide/Defoliant in any tankmix combination be tested before use. To determine the physical compatibility with other products, use a jar test, as described below:

Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

Read and follow all label directions for each tankmix product. Always use in accordance with the most restrictive of label precautions and limitations.

### MIXING DIRECTIONS

ET 2%SC Herbicide/Defoliant Alone: Fill spray tank with ¾ of the amount of water needed for the intended application and then turn on agitation. Pour the specified amount of product on the surface of the water in the spray tank. Add the remaining water volume to the spray tank with agitation running. Keep agitation running during filling and spraying operations. If spraying must be stopped before emptying the sprayer, resume agitation before spraying the remainder of the load. Mix only as much spray solution as can be sprayed within four hours. Storage and use of the previous day's spray mix may result in reduced activity.

ET 2%SC Herbicide/Defoliant in Tank Mixtures: Begin with clean equipment. Fill spray tank with ¾ of the amount of water needed for the intended application and turn on agitation. If using a buffering agent, add after filling the tank with ¾ amount of water. Add the recommended amount of tankmix products in the following order while maintaining agitation: 1) products in water-soluble packets

- 2) wettable powders
- water-dispersible granulars and/or soluble powders 3)
- flowable liquids (including ET 2% herbicide/defoliant) 4)
- 5) emulsifiable concentrates
- adjuvants and/or oils 6)
- 7) remaining amount of water to achieve the desired level

Always follow the labeled mixing instructions of any partner products. Keep agitation running during filling and spraying operations. If spraying must be stopped before emptying the sprayer, resume agitation before spraying the remainder of the load. Mix only as much spray solution as can be sprayed within four hours. Storage and use of the previous day's spray mix may result in reduced activity.

Use an approved agricultural buffering agent, buffering to pH 7.5 or less if using ET 2%SC Herbicide/Defoliant in a water source greater than or equal to pH 7.5. Always buffer the water source BEFORE adding ET 2%SC Herbicide/Defoliant to the spray tank.

### SPRAY DRIFT

Avoid spray drift to all other crops and nontarget areas. Do not apply when weather conditions may cause drift. Do not allow this product to drift onto nontarget areas. Drift may result in illegal residues or injury to adjacent crops and vegetation in the form of leaf yellowing and defoliation. [To avoid spray drift, DO NOT apply aerially when wind speed is greater than 10 mph or during periods of temperature inversions.] Use of larger droplet size will also reduce spray drift.

Commented [JK13]: Added brackets to mark aerial spray drift language as optional text as it is not applicable to all final printed labels; this language will only be included if a final printed label contains an aerial application method

Commented [JK12]: Added brackets to make "harvest aid" optional language; "harvest aid" is not applicable to all final printed labels, though it should be marked as optional language in order to incorporate it onto other final printed labels

D-279 060215-2 Page 6 of 29 AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Droplet size, boom height, temperature inversions, and wind speed are the primary factors determining drift. The specific application conditions required for the use of this product are described below.

### Information on Droplet Size

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

#### **Controlling Droplet Size**

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

### Boom Length

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

#### Application Height

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

#### Swath Adjustment

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

#### Wind

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

#### **Temperature and Humidity**

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

D-279 060215<u>-2</u> Page 7 of 29 **Commented [JK14]:** Added brackets to mark **aerial spray drift** language as optional text as it is not applicable to all final printed labels; this language will only be included if a final printed label contains an aerial application method

**Commented [JK15]:** Added brackets to mark **aerial spray drift** language as optional text as it is not applicable to all final printed labels; this language will only be included if a final printed label contains an aerial application method

**Commented [JK16]:** Added brackets to mark **aerial spray drift** language as optional text as it is not applicable to all final printed labels; this language will only be included if a final printed label contains an aerial application method

#### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing<sub>7</sub> which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion<sub>7</sub> while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Sensitive Areas

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

#### EQUIPMENT CLEANING

Do not allow the spray solution to dry in the application equipment. After application and before using the sprayer equipment for any other applications, the sprayer must be thoroughly cleaned. Applicators must ensure proper equipment clean-out for any other products mixed with ET 2%SC Herbicide/Defoliant as provided on the other product label(s). Immediately following application, clean all equipment thoroughly with detergent or a spray tank cleaner and water as described below. Should residues of ET 2%SC Herbicide/Defoliant remain in inadequately cleaned equipment, they may be released in subsequent applications and cause injury to crops.

- 1. Drain sprayer tank, hoses, and spray boom, and thoroughly rinse with clean water the inside of the spray tank, sprayer hoses, boom, and nozzles to remove any sediment or residues.
- Fill the tank ½ full with clean water, add the appropriate detergent (follow manufacturer's directions for use). Fill tank to capacity and operate the sprayer with agitation for 15 minutes to flush hoses, boom, and nozzles.
- 3. Drain the sprayer tank, lines, and booms. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray nozzles, tips, and screens.
- 4. Dispose of all cleaning solutions, rinsate, and washwaters in accordance with Ffederal, state, and local regulations.

### APPLICATION AND DOSAGE

field corn, popcorn, Application	Pest	Rate/Acre	Directions for Use
Preplant Burndown	Listed Broadleaf Weeds	0.7 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Do not make more than 3 applications or exceed 6.8 fl oz/acre per season for preplant burndown uses.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> </ul>
After Planting Before Crop Emergence	Listed Broadleaf Weeds	0.7 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Do not apply more than 2.4 fl oz/acre per season after planting prior to crop emergence.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> </ul>
Postemergence	Listed Broadleaf Weeds	0.7 to 1.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>ET 2%SC Herbicide/Defoliant can be applied from crop emergence to the V4 growth stage.</li> <li>Do not apply postemergence to sweet corn.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not make more than 2 applications or exceed 1.4 fl oz/acre per season for all postemergence applications to corn.</li> <li>Do not use crop oils or crop oil concentrates for postemergence applications.</li> <li>Some temporary herbicidal leaf speckling may appear on the crop. This effect is transient and will NOT appear on new growth.</li> </ul>

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Postemergence Directed	Listed Broadleaf Weeds	0.7 to 1.4 fl oz/acre	<ul> <li>ET 2%SC Herbicide/Defoliant can be applied from crop emergence to the V8 growth stage using directed spray or a drop nozzle application technique.</li> <li>Directed or drop nozzle applications should only be made when the corn has achieved a sufficient height for the spray to be directed beneath the corn leaves.</li> <li>Do not apply directly into the whorl when making a directed or drop nozzle application.</li> <li>Do not apply postemergence to sweet corn.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not make more than 2 applications or exceed 1.4 fl oz/acre per season for all postemergence applications to corn.</li> <li>Do not use crop oils or crop oil concentrates for postemergence applications.</li> <li>Some temporary herbicidal leaf speckling may appear on the crop. This effect is transient and will NOT appear on new growth.</li> </ul>
Corn (all uses)			<ul> <li>Do not apply more than 6.8 fl oz/acre per growing season for all preplant burndown applications.</li> <li>Do not apply more than 3.8 fl oz/acre per growing season for all after planting, prior to crop emergence, and postemergence uses.</li> <li>Do not harvest corn for silage within 50 days after last application of ET 2%SC Herbicide/Defoliant.</li> <li>Do not harvest corn for grain or stover within 90 days after last application of ET 2%SC Herbicide/Defoliant.</li> <li>Refer to Rotational Crop Restrictions table.</li> <li>Use the listed higher rates for hard-to-control weeds.</li> </ul>

Cotton			
Application	Pest	Rate/Acre	Directions for Use
Preplant Burndown, After Planting Before Crop Emergence	Listed Broadleaf Weeds	0.7 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not apply more than 2.4 fl oz/acre per season for this use.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> </ul>
Postemergence (Hooded)	Listed Broadleaf Weeds	0.7 to 2.4 fl oz/acre	<ul> <li>Do not apply by air for this use.</li> <li>Apply to cotton having less than 3 inches of stem bark using hooded ground equipment only.</li> <li>Avoid contact with desirable vegetation.</li> <li>Do not apply more than 2.4 fl oz/acre per season for this use.</li> <li>Allow a minimum of 30 days between applications for this use.</li> </ul>
Postemergence (Layby)	Listed Broadleaf Weeds	0.7 to 1.4 fl oz/acre	<ul> <li>Do not apply by air for this use.</li> <li>Apply when the cotton has attained an average height of 18 inches or more and having at least 3 inches of stem bark using hooded or post-directed ground spray equipment only.</li> <li>Avoid contact with desirable vegetation.</li> <li>Do not apply more than 1.4 fl oz/acre per season for this use.</li> <li>Allow a minimum of 30 days between applications for this use.</li> </ul>

Cotton (continued)						
Application	Pest	Rate/Acre	Directions for Use			
Preconditioning		0.42 to 1.12 fl oz/acre	<ul> <li>ET 2%SC Herbicide/Defoliant may be used as a preconditioner to enhance the activity of a subsequent defoliant application.</li> <li>Apply using 15 to 30 gallons of water per acre by ground or 5 gallons of water per acre by air.</li> <li>Timing of application is recommended 7 to 14 days prior to a defoliation application of ET 2%SC Herbicide/Defoliant or the use of another defoliant. Refer to the defoliation section below prior to use for complete recommendations.</li> <li>Do not make more than 2 applications or exceed 7.7 fl oz/acre per season for all defoliation application applications to cotton.</li> </ul>			
Defoliation	Defoliation of Cotton	1.8 to 3.85 fl oz/acre	<ul> <li>Apply when sufficient mature bolls have developed to produce desired yield; generally greater than 60%.</li> <li>Adequate defoliation is generally achieved within 7 to 14 days, depending upon weather and crop conditions.</li> <li>Apply using 15 to 30 gallons of water per acre by ground or 5 gallons of water per acre by air.</li> <li>Do not make more than 2 applications or exceed 7.7 fl oz/acre for all defoliation applications.</li> <li>Applications must be a minimum of 7 days apart.</li> <li>ET 2%SC Herbicide/Defoliant may be tank mixed or applied in sequence with other defoliant products such as, but not limited to, CottonQuik<sup>®</sup>, Cyclone<sup>®</sup>, Dropp<sup>®</sup>, Finish<sup>®</sup>, Folex<sup>®</sup>, Ginstar<sup>®</sup>, Gramoxone<sup>®</sup>, Prep<sup>TM</sup>, and/or Roundup<sup>®</sup>.</li> </ul>			
Cotton (all uses)		1	<ul> <li>Do not apply more than 11.9 fl oz/acre per growing season to cotton.</li> <li>Preharvest Interval (PHI): 7 days</li> <li>Refer to Rotational Crop Restrictions table.</li> <li>Use the listed higher rates for hard-to-control weeds.</li> </ul>			

Potato			
Application	Pest	Rate/Acre	Directions for Use
Pre-plant Burndown	Listed Broadleaf Weeds	0.6 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 10 gallons spray solution per acre by ground or 5 gallons water per acre by air.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> <li>Do not apply more than 2.4 fl oz/acre per growing season for all preplant burndown applications.</li> <li>Allow a minimum of 30 days between applications for this use.</li> </ul>
After Planting Before Crop Emergence	Listed Broadleaf Weeds	0.6 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> <li>Do not apply more than 2.4 fl oz/acre per growing season for all after planting before crop emergence applications.</li> </ul>
Desiccation	Potato Foliage and Vines Listed Broadleaf Weeds	2.4 to 6.7 fl oz/acre	<ul> <li>Apply as a foliar spray in the early stage of crop senescence.</li> <li>Apply by air at 5 gallons spray solution per acre or 20 to 50 gallons spray solution per acre by ground equipment.</li> <li>A repeat application of ET 2%SC Herbicide/Defoliant or another desiccant may be needed under certain climatic conditions for complete desiccation.</li> <li>ET 2%SC Herbicide/Defoliant may be tank mixed or applied in sequence with other desiccants such as diquat or glufosinate for improved desiccation. Assure that the most restrictive product label of the tank mix partners is used.</li> <li>Make 1 to 2 applications at a minimum 7-day interval.</li> <li>Do not make more than 2 applications or exceed 13.5 fl oz/acre per season for desiccation, NOTE: The seasonal maximum is 13.5 fl oz/acre for all applications (pre-plant burndown + after planting before crop emergence + dessication),</li> <li>Higher water volumes should be used in dense canopy conditions.</li> </ul>
Potato (all uses)			<ul> <li>Do not apply more than 13.5 fl oz/acre per growing season for all preplant burndown, after planting prior to emergence, and desiccation applications combined.</li> <li>Preharvest Interval (PHI): 7 days</li> <li>Refer to Rotational Crop Restrictions table.</li> <li>Use the listed higher rates for hard-to-control weeds.</li> </ul>

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Soybean			
Application	Pest	Rate/Acre	Directions for Use
Preplant Burndown, After Planting Before Crop Emergence	Listed Broadleaf Weeds	0.7 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not apply more than 2.4 fl oz/acre per season for all preplant burndown and after planting before emergence applications.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> </ul>
Postemergence	Listed Broadleaf Weeds	0.56 to 1.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>ET 2%SC Herbicide/Defoliant can be applied from crop emergence to the V6 growth stage.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not make more than 2 applications or exceed 1.4 fl oz/acre per season for this use.</li> <li>Do not use crop oils or crop oil concentrates for postemergence applications.</li> <li>Some temporary herbicidal leaf speckling may appear on the crop. This effect is transient and will NOT appear on new growth.</li> </ul>
Soybean (all uses)			<ul> <li>Do not apply more than 3.8 fl oz/acre per growing season to soybeans.</li> <li>Do not graze soybean forage or cut for hay within 7 days of last ET 2%SC Herbicide/Defoliant application.</li> <li>Do not harvest soybeans for grain within 70 days after last application of ET 2%SC Herbicide/Defoliant.</li> <li>Refer to Rotational Crop Restrictions table.</li> <li>Use the listed higher rates for hard-to-control weeds.</li> </ul>

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Triticale; Wheat	1		
Application	Pest	Rate/Acre	Directions for Use
Preplant Burndown	Listed Broadleaf Weeds	0.7 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Do not make more than 3 applications or exceed 6.8 fl oz per acre per season for preplant burndown uses.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> </ul>
After Planting Before Crop Emergence	Listed Broadleaf Weeds	0.7 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not apply more than 2.4 fl oz/acre per season after planting prior to emergence of crop.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> </ul>
Postemergence	Listed Broadleaf Weeds	0.7 to 1.4 fl oz/acre	<ul> <li>ET 2%SC Herbicide/Defoliant can be applied from crop emergence to the appearance of the flag leaf. DO NOT apply ET 2%SC Herbicide/Defoliant to flag leaf foliage.</li> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not make more than 2 applications or exceed 1.4 fl oz/acre per season for this use.</li> <li>The addition of a NIS adjuvant at a concentration of 0.25% is recommended for optimum weed control.</li> <li>Some temporary herbicidal leaf speckling may appear on the crop. This effect is transient and will NOT appear on new growth.</li> </ul>
Triticale; Wheat	(all uses)		<ul> <li>Do not apply more than 6.8 fl oz/acre per growing season for all preplant burndown applications.</li> <li>Do not apply more than 4.4 fl oz/acre per growing season for all after planting prior to crop emergence and postemergence uses.</li> <li>Do not harvest wheat or triticale for hay within 21 days of last ET 2%SC Herbicide/Defoliant application.</li> <li>Do not harvest wheat or triticale for grain within 60 days after last application of ET 2%SC Herbicide/Defoliant.</li> <li>Refer to Rotational Crop Restrictions table.</li> <li>Use the listed higher rates for hard-to-control weeds.</li> </ul>

D-279 060215<u>-2</u> Page 15 of 29 Bulb Vegetables (Crop Group 3) – garlic; great-headed garlic; leek; dry bulb and green onion; Welsh onion, shallot

**Cereal Grains (Crop Group 15)** - barley; buckwheat; corn; pearl millet; proso millet; oats; popcorn; rice; rye; sorghum (milo); teosinte; triticale; wheat; wild rice

Brassica (Cole) Leafy Vegetables (Brassica) Crops (Crop Group 5) - broccoli; Chinese broccoli (gai lon); broccoli raab (rapini); Brussels sprouts; Chinese cabbage (bok choy); Chinese cabbage (napa); Chinese mustard cabbage (gai choy); cauliflower; cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens

**Cucurbits** <u>Vegetables</u> (Crop Group 9) – chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; edible gourd (including hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (including balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (including cantaloupe, casaba, crenshaw melon, golden perhsaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); pumpkin; summer squash; winter squash (including butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

Fruiting Vegetables (Crop Group 8) - eggplant; groundcherry (*Physalis* spp.); pepino; pepper (including bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); tomatillo; tomato

Leafy Vegetables (Crop Group 4) (Except Brassica Vegetables) - amaranth (Chinese spinach); arugula (roquette); cardoon; celery; Chinese celery; celtuce; chervil; edible-leaved chrysanthemum; garland chrysanthemum; corn salad; garden cress; upland cress; dandelion; dock (sorrel); endive (escarole); Florence fennel; head and leaf lettuce; orach; parsley; garden purslane; winter purslane; radicchio (red chicory); rhubarb; spinach; New Zealand spinach; vine spinach; Swiss chard

Legume Vegetables, Succulent or Dried (Crop Group 6) – bean (*Lupinus*) (including grain lupin, sweet lupin, white lupin, white sweet lupin); bean (*Phaseolus*) (including field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (*Vigna*) (including adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean; lentil; pea (*Pisum*) (including dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soybean; soybean (immature seed); sword bean

**Oil-Sseed** <u>Group</u> <u>Crops</u> (Crop Group 20) - borage; calendula; castor oil plant; Chinese tallowtree; cottonseed; crambe; cuphea; echium; euphorbia; evening primrose; flax seed; gold of pleasure; hare's ear mustard; jojoba; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; niger seed; oil radish; poppy seed; rapeseed [canola]; rose hip; safflower; sesame; stokes aster; sunflower; sweet rocket; tallowwood; tea oil plant; vernonia; cultivars, varieties, and/or hybrids of these

**Root And Tuber Vegetables (Crop Group 1)** - arracacha; arrowroot; Chinese artichoke; Jerusalem artichoke; garden beet; sugar beet; edible burdock; edible canna; carrot; bitter cassava; sweet cassava; celeriac; chayote (root); turnip-rooted chervil; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; turnip-rooted parsley; parsnip; potato; radish; oriental radish; rutabaga; salsify; black salsify; Spanish salsify; skirret; sweet potato; tanier; turmeric; turnip; yam bean; true yam

Sugarcane			
Application	Pest	Rate/Acre	Directions for Use
Preplant Burndown	Listed Broadleaf Weeds	0.7 to 2.4 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons water per acre by air or 10 gallons spray solution per acre by ground.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> <li>Use the higher rate for hard-to-control weeds.</li> <li>Refer to Rotational Crop Restrictions table.</li> </ul>

**Commented [JK17]:** Reformatted the naming convention of the crops in this table for labeling consistency across brands

<ul> <li>Do not make more than 3 applications or exceed 6.8 for oz/acre per season.</li> <li>Allow a minimum of 30 days between applications for USE</li> </ul>	
use.	

Grapes	nd Nonbearing	97			<b>Commented [JK18]:</b> Reformatted the naming convention of the crops in this table for labeling
Olive Trees					consistency across brands
	(Crop Group 11-	·10)			
	<b>`</b> ' '	,	medlar; pear; Asi	ian pear; quince; Chinese quince; Japanese quince;	
tejocote; cultiv	vars, varieties, and				
Pomegranate		-			
	(Crop Group 12)				
plumcot;prune	e (fresh)			iickasaw plum; Damson plum; Japanese plum;	
	rop Group 14) Pl				Commented [JK19]: Inadvertantly deleted from
	hnut; Brazil nut; b lack walnut; Englis		hew; chestnut; ch	hinquapin; filbert (hazelnut); hickory nut; macadamia	previously stamped master label; Tolerance already established for pistachio
Application		Rate/	Maximum	Directions for Use	diready established for pistachio
••		Acre	Applications Per Year		
Postharvest,	Listed	1.0 to 4.0	Do not exceed	Do not apply by air for this use.	
Dormant,	Broadleaf	fl oz/acre	3 applications	Apply in a minimum of 20 gallons spray solution	
Prebloom	Weeds		per season for	per acre by ground equipment to target weeds	
I			this use.	and sucker growth.	
I			1	• The addition of a COC adjuvant at a	
I			1	concentration of 1% to 2% is recommended for	
I			1	optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture	
I			1	conditions.	
I			1	<ul> <li>COC adjuvants are recommended, though other</li> </ul>	
I		+	Do not exceed	adjuvants may be used.	
I	Sucker	3.0 to 4.0	2 applications	• Use the higher rate for hard-to-control weeds.	
I	Management*	fl oz/acre	per season for	• Do not exceed 6.8 fl oz/acre per season for all	
I			this use.	postharvest, dormant, and prebloom applications	
I			1	combined.	
			l	Do not exceed 6.8 fl oz/acre per season for all in	
In-Season	Listed	1.0 to 4.0	Do not exceed	season applications combined.	
I	Broadleaf	fl oz/acre	a combined	Allow a minimum of 30 days between	
I	Weeds	ļ!	total of 2	applications for this use.	
I	0		applications	• For the management of undesirable sucker growth on the basal portion of trunks, root	
I	Sucker	3.0 to 4.0	per season for these uses.	sprouts and vine trunks, growth must be	
I	Management*	fl oz/acre	these uses.	controlled when the tissue is young, immature	
I		1	1	and/or not hardened off.	
I		1	1	Avoid contact with green, uncallused bark of	
I		'	1	young trees or vines, established less than one	
I		1	1	year, unless protected from spray contact by non-	
I		1	1	porous wraps, grow tubes, or waxed containers.	
I		1	1	Do not allow spray to drift onto desirable fruit,	
I		1	1	foliage, vines, or trees, as damage will occur.	
I			1	Preharvest Interval (PHI): 0 days	
* Noto: For I	uco in California	for sucker r	nanagement onl	y on Grapes and Pomegranates. Not for use in	
				Fruit, Stone Fruit, and Tree Nuts.	Commented [ W20] CDDD approved the upo
ounionna ioi	Subker manage	ment on on	Ve Freed, Follo	Trut, otone Trut, and tree truto.	Commented [JK20]: CDPR approved the use of ET2% for sucker management on all crops or

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Application	Pest	Rate/ Acre	Maximum Applications Per Year	Directions for Use
Postharvest Dormant Prebloom	Listed Broadleaf Weeds	1.0 to 4.0 fl oz/acre	Do not exceed 3 applications per season for this use	<ul> <li>Do not apply by air for this use.</li> <li>Apply in a minimum of 20 gallons spray solution per acre by ground equipment to target weeds and sucker growth.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low</li> </ul>
	Sucker Management≛	3.0 to 4.0 fl oz/acre	Do not exceed 2 applications per season for this use	<ul> <li>moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> <li>Use the higher rate for hard-to-control weeds.</li> <li>Do not exceed 6.8 fl oz/acre per season for all postharvest, dormant, and prebloom applications combined.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>For the management of undesirable sucker growth on the basal portion of trunks, root sprouts and tree/vine trunks, root sprouts and tree/vine trunks, <sup>c</sup> Ggrowth must be controlled when the tissue is young, immature, and/or not hardened off.</li> <li>Avoid contact with green, uncallused bark of young trees or vines, established less than one year, unless protected from spray contact by non- porous wraps, grow tubes, or waxed containers.</li> <li>Do not allow spray to drift onto desirable fruit, foliage, vines, or trees, as damage will occur.</li> </ul>

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**Commented [JK21]:** CDPR approved the use of ET2% for sucker management on all crops on November 3, 2014

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Application	Pest	Rate/ Acre	Maximum Applications Rate/Year	Directions for Use
In-Season	Listed Broadleaf Weeds	1.0 to 4.0 fl oz/acre	Do not exceed a combined total of 2 applications per season for these uses.	<ul> <li>Apply in a minimum of 20 gallons spray solution per acre by ground equipment to target weeds and sucker growth.</li> <li>Do not apply by air for this use.</li> <li>Do not exceed 6.8 fl oz/acre per season for all in season applications combined.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is</li> </ul>
	Sucker Management≛	3.0 to 4.0 fl oz/acre		<ul> <li>recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> <li>Do not allow spray to drift onto desirable fruit, foliage, vines, or trees, as damage will occur.</li> <li>Avoid contact with green, uncallused bark of young trees or vines, established less than one year, unless protected from spray contact by non- porous wraps, grow tubes, or waxed containers.</li> <li>Use the higher rate for hard-to-control weeds.</li> <li>For the management of undesirable sucker growth on the basal portion of trunks, root sprouts and tree/vine trunks growth must be controlled when the tissue is young, immature and/or not hardened off.</li> </ul>

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**Commented [JK22]:** CDPR approved the use of ET2% for sucker management on all crops on November 3, 2014

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### SPOT TREATMENT

For spot treatment to listed broadleaf weeds or for sucker management, refer to the information below to determine the amount of ET 2%SC Herbicide/Defoliant to add to a tank. Spray using a pressure (pumpup) sprayer (or similar application equipment) until wet but prior to runoff. Use information for rates, concentrations, water volumes, and timing and frequency of application can be found in the Rate/Acre and Directions for Use columns in the APPLICATION AND DOSAGE tables. Please refer to and follow all precautions and restrictions under Directions for Use for the crop to be treated.

### Fluid oz of ET 2%SC to add to sprayer tank

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Sprayer tank	Spray	fluid oz ET 2%SC to	fluid oz ET 2%SC to
capacity	volume	add per tank for a	add per tank for a
(gallons)	(gallons/A)	rate of 1.0 fl oz/A	rate of 4.0 fl oz/A
	20	0.05	0.20
1	30	0.03	0.13
	40	0.03	0.10
	20	0.15	0.60
3	30	0.10	0.40
	40	0.08	0.30
	20	0.25	1.00
5	30	0.17	0.67
	40	0.13	0.50
	20	0.50	2.00
10	30	0.33	1.33
	40	0.25	1.00

### **Formula**

Fluid oz Venue to add to sprayer tank =  $\frac{\text{Application rate} \times \text{Sprayer tank capacity}}{2}$ 

### Example Calculation for 1 gallon sprayer tank capacity

Fluid oz Venue to add to sprayer tank =  $\frac{4.0 \text{ fl oz } / \text{A} \times 1 \text{ gallon}}{40 \text{ gallons} / \text{A}}$ 

### = 0.10 fl oz

where:	Application rate	= 4 <u>.0</u> fl oz/A
	Sprayer tank capacity	= 1 gallon
	Spray volume	= 40 gallons/A

#### Example Calculation for 5 gallon sprayer tank capacity

Fluid oz Venue to add to sprayer tank =	4.0 fl oz /A $\times$ 5 gallons
Find 02 venue to add to sprayer tank –	40 gallons/A

### = 0.50 fl oz

where: Application rate	= 4 <u>.0</u> fl oz/A
Sprayer tank capacity	= 5 gallons
Spray volume	= 40 gallons/A

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Pasture and	I Rangeland	
Pest	Rate/Acre	Directions for Use
Listed Broadleaf Weeds	1.0 to 3.5 fl oz/acre	<ul> <li>Apply in a minimum of 2 gallons water per acre by air or 10 gallons water per acre by ground for this application.</li> <li>The addition of a crop oil or spray tank adjuvant at a concentration of 0.5% to 1.0% is recommended for optimum weed control.</li> <li>Allow a minimum of 14 days between applications for this use.</li> <li>Do not make more than 2 applications or exceed 7.0 fl oz/acre per season for this use.</li> <li>Livestock may graze treated areas as soon as the spray solution has dried on the foliage.</li> <li>Refer to Rotational Crop Restrictions table.</li> <li>Use the higher rate for hard-to-control weeds.</li> </ul>

Application	Pest	Rate/ Acre	Directions for Use
Preplant Burndown	Listed Broadleaf Weeds	0.7 to 4.0 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not make more than 3 applications or exceed 6.8 fl oz/acre per year.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> <li>Refer to Rotational Crop Restrictions table.</li> <li>Use the higher rate for hard-to-control weeds.</li> </ul>

Aside Acre Pest	age* (Non Foo Rate/Acre	d Producing) Directions for Use
Listed Broadleaf Weeds	0.7 to 4.0 fl oz/acre	<ul> <li>Apply in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>Allow a minimum of 30 days between applications for this use.</li> <li>Do not make more than 3 applications or exceed 6.8 fl oz/acre per year.</li> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>COC adjuvants are recommended, though other adjuvants may be used.</li> <li>Refer to Rotational Crop Restrictions table.</li> <li>Use the higher rate for hard-to-control weeds.</li> <li>Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.</li> </ul>

\*Follow federal, state and local rules for use on grass and hay.

### Noncrop Weed Control:

Airports and Airfields, Commercial Plants, Storage and Lumber Yards, Fence Lines and Fence Rows, Farmyards and Farm Buildings, Barrier Strips and Firebreaks, Equipment Areas, Railroads, Roadside and Utility Rights-Of-Way, Fuel Tank Farms and Pumping Stations, Dry Ditches and Ditchbanks, Vacant Lots, and Similar Agricultural and Industrial Non-Crop Sites

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Pest	Rate/Acre	Directions for Use			
Listed	0.7 to 4.0	• Apply in a minimum of 20 to 40 gallons spray solution per acre by ground.			
Broadleaf	fl oz/acre	<ul> <li>Avoid contact with desirable vegetation.</li> </ul>			
Weeds		<ul> <li>The addition of a COC adjuvant at a concentration of 1% to 2% is</li> </ul>			
		recommended for optimum weed control. Use the higher COC rate for			
		larger labeled weed species or in low moisture conditions.			
		• COC adjuvants are recommended, though other adjuvants may be used.			
		• Do not make more than 3 applications or exceed 12.0 fl oz/acre per year.			
		<ul> <li>Use the higher rate for hard-to-control weeds.</li> </ul>			
		• For applications to ornamental plantings, do not allow people (other than			
		the applicator) or pets on treatment area during the application and until			
		sprays have dried.			

### ESTABLISHED ORNAMENTAL TURF LAWNS (RESIDENTIAL, INDUSTRIAL, AND INSTITUTIONAL), PARKS, CEMETERIES, ATHLETIC FIELDS, GOLF COURSES (FAIRWAYS, APRONS, TEES, AND ROUGHS), SOD FARMS, AND SIMILAR TURF AREAS

For applications to ornamental turf, do not allow people (other than the applicator) or pets on treatment area during the application and until sprays have dried.

#### Spray Concentrate

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Make an appropriate amount of spray concentrate for the area to be treated by adding 10 fl oz of ET 2%SC Herbicide/Defoliant to 120 fl oz of water (e.g., 1.25 fl oz ET 2%SC Herbicide/Defoliant to 15 fl oz water). Use the appropriate amount of concentrate as specified in the dosage tables below for application by pressure (pump-up) sprayer, hose-end applicator, or similar application equipment.

### Spot treatment: Pressure sprayer (Pump-up Sprayer)

Adjust spray nozzle to give coarse spray. Aim at center of weed and spray to wet. A repeat application may be required for hard-to-kill broadleaf weeds. Do not use a hose-end sprayer for spot treatments.

Turf Species	Amount of Spray Concentrate (fluid ounces)	Amount of water to be applied (gallons)	Area treated (square feet)
Cool season grasses: bluegrass, fescue, ryegrass Warm season grasses:	1.0	4	1000
bahiagrass, common bermudagrass, centipedegrass, St. Augustine grass, zoysia grass	0.5	2	500

### Entire lawn: Dial Type Hose-End Sprayer

Spray lawn using coarse spray. Apply evenly over area to be treated. One application should be sufficient. Effects begin to show after 24 to 48 hours with plant death occurring within 7 to 14 days.

- Measure the total square footage area to be sprayed. To determine the total square foot area, multiply the length by the width of the lawn area to be treated. Subtract square footage of nontreatment areas including flower beds, shrub beds, driveways and sidewalks.
- 2) The application rate of this product is indicated in the following table. Add the appropriate amount of this product to the spray bottle, [jar], [reservoir], as indicated in the table depending on the lawn area to be treated.
- 3) Set the dial to the correct fluid ounce setting mix rate indicated in the following table.
- 4) Connect the hose, turn on water and spray evenly over the lawn treatment area.
- 5) Monitor the spray solution level in the spray bottle, [jar], [reservoir], to gauge coverage.

Turf Species	Area to be Treated (square feet)	Amount of spray concentrate (fluid ounces)	Dial-type Hose-end sprayer mix setting (fl oz per gallon)
	1000	1.0	
Cool season grasses: bluegrass, fescue, ryegrass	5000	5.0	2.0 fl oz
	8000	8.0	

Broadcast Application: Spray using coarse spray. Apply evenly over area to be treated.

Turf Species	Amount of Spray Concentrate (fluid ounces)	Area treated (square feet)
Cool season grasses:	1.0	1000
bluegrass, fescue, ryegrass;	5.0	5000
Warm season grasses: bahiagrass, common bermudagrass, centipedegrass, St Augustine grass, zoysia grass	8.0	8000

### PRECAUTIONS FOR USE IN NURSERIES AND ORNAMENTAL PLANTINGS; SOD FARMS; CHRISTMAS TREES AND CONIFER PLANTATION SITE PREPARATION; ESTABLISHED ORNAMENTAL TURF

#### **Turfgrass Tolerance**

Established turfgrasses tolerant to application of ET 2%SC Herbicide/Defoliant at labeled rates are listed below. For turfgrass species not listed on this label, the user should apply ET 2%SC Herbicide/Defoliant to a small test area to assure tolerance. A slight transitory yellowing or discoloration may occur on some sensitive turfgrass species under stress 3 to 5 days following application of ET 2%SC Herbicide/Defoliant at labeled rates. Recovery is typically 4 to 7 days from application.

### Cool Season Turfgrasses (creeping bentgrass, Kentucky bluegrass, Rough bluegrass,

**tall fescue, perennial ryegrass)**. Cool season grasses, both newly seeded and established, are generally tolerant to application of ET 2%SC Herbicide/Defoliant at labeled rates. To evaluate tolerance of certain species, apply to a small test area before treating large areas to assure tolerance. Be aware and observe all label restrictions regarding turfgrass tolerance when ET 2%SC Herbicide/Defoliant is tank mixed with another product.

### Warm Season Turfgrasses (common and hybrid bermudagrass, centipedegrass, St.

**Augustinegrass, zoysiagrass).** Warm season turfgrasses listed above are generally tolerant to applications of ET 2%SC Herbicide/Defoliant at labeled rates. Centipedegrass may exhibit a slight yellowing 3 to 7 days after application, however complete recovery is expected. To evaluate tolerance of certain species, apply to a small test area before treating large areas to assure tolerance. Be aware and

D-279 060215<u>-2</u> Page 24 of 29 observe all label restrictions regarding turfgrass tolerance when ET 2%SC Herbicide/Defoliant is tank mixed with another product.

### Newly Seeded, Sodded, or Sprigged Turfgrass

ET 2%SC Herbicide/Defoliant may be applied to newly seeded, sodded, or sprigged turfgrass that is established and not subject to impending stress due to moisture, temperature, or other cultural practices. Areas treated with ET 2%SC Herbicide/Defoliant may be seeded or overseeded one day following application.

### Dormant Turfgrass

Applications of ET 2%SC Herbicide/Defoliant to dormant warm season turfgrasses are permitted. Avoid applications when warm season turfgrasses are transitioning into or out of dormancy.

For applications to ornamental turf and plantings, do not allow people (other than the applicator) or pets on treatment area during application and until sprays have dried (refer to Nonagricultural Use Requirements box). Apply ET 2%SC Herbicide/Defoliant at rates specified in the dosage table below for control of broadleaf weeds. ET 2%SC Herbicide/Defoliant is a broadleaf contact herbicide. ET 2%SC Herbicide/Defoliant may be tank mixed with other registered grass herbicides for control of grassy weeds. **Avoid contact with desirable vegetation**.

### Spray Volume

ET 2%SC Herbicide/Defoliant is a contact herbicide that causes herbicidal symptoms only to plant parts that come into contact with spray applications. Therefore, proper spray volume and uniform coverage are important to maximize efficacy of ET 2%SC Herbicide/Defoliant. Uniform sprays should be applied at 20 to 200 gallons/A (0.5 to 4.5 gallons per 1000 sq. ft). Higher spray volumes should be used to target high weed populations and/or weeds contained in dense turfgrass canopies.

#### Use of Adjuvants

Addition of surfactants (spreaders/stickers) to the spray solution will improve efficacy and contact activity of ET 2%SC Herbicide/Defoliant. Follow manufacturer's recommended use rates for specific sites.

Use	Rate/Acre	Directions for Use
Nursery and ornamental plantings	When not tank mixing with other herbicides: Apply ET 2%SC Herbicide/Defoliant at rates of 1.0 to 4.0 fluid ounces per acre in 20 to 40 GPA for control of seedling, non-mature winter and summer annual weeds and/or for temporary burndown of weeds listed in <i>Weeds Controlled</i> . Tank mixes including other broadleaf herbicides with ET 2%SC Herbicide/Defoliant may be needed for control of larger winter and summer annual weeds.	<ul> <li>Do not make more than 3 applications or exceed 13.6 fl oz/A per year using ground equipment.</li> <li>Allow a minimum of 30 days between applications.</li> <li>Do not apply by air.</li> <li>Do not apply when environmental conditions favor spray drift or poor spray coverage.</li> <li>Avoid spray drift onto nontarget susceptible plants such as vegetables, flowers, ornamental, trees, shrubs, and other desirable plants.</li> <li>Do not apply to lawns or turf where clovers and carpetgrass are desirable.</li> </ul>
Sod farms Christmas trees and conifer plantation site preparation Established Ornamental turf	When tank mixing with other herbicides: Apply ET 2%SC Herbicide/Defoliant at rates of 0.7 to 1.5 fluid ounces per acre in tank mix combinations with herbicides registered for use such as amines, esters, and salts of 2,4-D, chloroprop, dicamba, mecoprop, MCPA, triclopyr, fluroxypyr, and various combination of these products for control of annual weeds and perennial weeds listed in <i>Weeds Controlled</i> . Residual, long-term control of the target weeds is as defined by the labeling of the companion product. For tank mixing with herbicides follow the tank mix directions.	

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### Backpack Sprayer Dosage Chart

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For use in backpack sprayers having tank capacity of 3 to 5 gallons, accurate calibration and measurement of the appropriate amount of product is important to deliver the desired rate of ET 2%SC Herbicide/Defoliant. Use the chart below to determine the quantity of ET 2%SC Herbicide/Defoliant to be added to a backpack sprayer having a capacity of 3 to 5 gallons to equal a 1.5 fl oz/A rate.

Backpack tank capacity (gallons)	Spray volume (gallons/A)	fluid oz product per tank for 1.5 fl oz/A	ml product per tank for 1.5 fl oz/A
	20	0.23	6.6
3	30	0.15	4.4
	40	0.11	3.3
	20	0.30	8.9
4	30	0.20	5.9
	40	0.15	4.4
	20	0.38	11.1
5	30	0.25	7.4
	40	0.19	5.5

For smaller volume sprayers less than three (3) gallons in size, measure 0.03 to 0.07 fl. oz. (1 to 2.1 ml) of ET 2%SC Herbicide/Defoliant per one (1) gallon of water when tank mixing with other herbicides to equal a 1.5 fl. oz./A rate. For specific measurements based on spray volume (gallons/A), see the table below.

Spray Volume (gallons/A)	fluid oz product per gallon water for 1.5 fl. oz/A	ml product per gallon water for 1.5 fl. oz/A
20	0.07	2.1
30	0.05	1.4
40	0.03	1.0

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container, and keep tightly closed when not in use. Store in a cool, dry place.

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

### **Container Handling:**

### Nonrefillable plastic container (Less than 5 gallons)

Nonrefillable container. Do not reuse or refill this container. Clean container 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate 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.

### Nonrefillable plastic container (Greater than 5 gallons)

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.

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

Or, if too large to be tipped, rolled, or turned upside down, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling if available or reconditioning if appropriate 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.

### Nonrefillable metal container (Greater than 5 gallons)

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.

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

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Or, if too large to be tipped, rolled, or turned upside down, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

### Refillable plastic container

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Return to point of sale or offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration or by other procedures approved by state and local authorities.

### **Refillable metal container**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Return to point of sale or offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

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### IMPORTANT: READ BEFORE USE

By using this product, user or buyer accepts the following conditions, warranty, disclaimer of warranties, and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be accurate and must be followed carefully. However, because of extreme weather and soil conditions, use methods and other factors beyond the control of Nichino America, Inc. (NAI), it is impossible for NAI to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. To the extent consistent with applicable law, all such risks are assumed by the user or buyer.

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**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT THE ELECTION OF NICHINO AMERICA, THE REPLACEMENT OF PRODUCT

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