

## U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460 EPA Reg.

Date of Issuance:

Number:

71711-41

APR 0 1 2013

NOTICE OF PESTICIDE:

x Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: Unconditional

Name of Pesticide Product:

ETX Herbicide/Defoliant

Kenneth Chisholm

Nichino America Inc.

4550 New Linden Hill Rd., Suite 501

Wilmington, DE 19808

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is registered in accordance with FIFRA sec. 3(c)(5) provided that you:

- 1. Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.
- 2. Revise the EPA Reg. No. to 71711-41
- 3. Assure that the establishment number and net content are also added to the label.
- 4. Data requirements for both storage stability (830.6317) and corrosion characteristics (830.6320) have not been satisfied. It is recommended that the observation be made at 0,3,6,9 and 12 month intervals. This data must be submitted within eighteen months of the date of this letter. The results must be submitted to the Agency in electronic and hard copy format.
- 5. Submit one (1) copy of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this notice, please contact Grant Rowland at (703) 347-0254 or rowland.grant@epa.gov.

Signature of Approving Official:

Date:

APR 0 1 2013

Kathryn V. Montagua Product Manager 23

Herbicide Branch

Registration Division (7505P)

ACCEPTED

APR 0 1 2013

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg No. 717 (1-4) 2013-04-01 D-91 092611 Page 1 of 25

GROUP 14 HERBICIDE



## **ETX Herbicide/Defoliant**

A Contact Herbicide for Broadleaf Weed Control, Defoliation, and Desiccation

Active Ingredient:	
Pyraflufen ethyl: ethyl 2-chloro-5-(4-chloro-5-difluoromethoxy-1-	
methyl-1 <i>H</i> -pyrazol-3-yl)-4-fluorophenoxyacetate	<b>4.0%</b>
Other Ingredients*:	<u>96.0%</u>
Total:	
Contains 0.335 lb. pyraflufen ethyl per gallon	
*contains petroleum distillates	
EPA Reg. No. 71711	EPA Est. No
·	•

# KEEP OUT OF REACH OF CHILDREN DANGER - PELIGRO

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

EIRST AID						
FIRST AID						
If in eyes	Hold eye open and rinse slowly and gently with water for 15 to 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.					
16						
lf on skin	Take off contaminated clothing.					
or clothing	Rinse skin immediately with plenty of water for 15-20 minutes.					
	Call a poison control center or doctor for treatment advice.					
If swallowed	Call a poison control center or doctor immediately for treatment advice.					
Do not give any liquid to the person.						
<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>						
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>					
HOTLINE NUMBER						
Have the product container or label with you when calling a poison control center or doctor, or going for						
treatment. You may also contact 1-800-348-5832 for emergency medical treatment information. In						
case of fire or spills, information may be obtained by calling 1-800-424-9300.						
NOTE TO PHYSICIAN						
May pose an aspiration pneumonia hazard. Contains petroleum distillate. Probable mucosal damage						
may contraindicate the use of gastric lavage.						

Net Contents:

Manufactured for:
Nichino America, Inc.
4550 New Linden Hill Road, Suite 501
Wilmington, DE 19808
888-740-7700

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

**Corrosive**. Causes irreversible eye damage. Harmful if swallowed or absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear (goggles, face shield, or safely glasses.) Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Wear long sleeved shirt and long pants, socks, shoes, and gloves.

#### Personal Protective Equipment (PPE)

Some of materials that are chemical-resistant to this product are listed below. If you would like 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
- Shoes plus socks
- · Chemical-resistant gloves
- Protective eyewear
- For overhead exposure, wear chemical resistant headgear

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

## **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 STATEMENT**

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. Do not apply if rainfall is expected within one hour.

## **DIRECTIONS FOR USE**

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

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

#### AGRICULTURAL USE REQUIREMENTS

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

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

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

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

## 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**

ETX Herbicide/Defoliant is a contact herbicide and defoliant and requires thorough coverage for complete broadleaf weed control and defoliation/desiccation.

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

Do not apply ETX Herbicide/Defoliant through any type of irrigation system.

ETX Herbicide/Defoliant is rainfast within one hour after application.

## **ROTATIONAL CROP RESTRICTIONS**

Crop/Crop Group	Rotational/Plantback Intervals
Corn	
Cotton	0 days following application
Grapes	
Olives	
Pome Fruit Crop Group 11	
Pomegranates	
Potatoes	·
Soybeans	·
Stone Fruit Crop Group 12	
Tree Nuts Crop Group 14	
Wheat, Triticale	
Bulb Vegetables Crop Group 3	
Cereal Grains Crop Group 15 (except corn, wheat,	
and triticale - see 0-day plantback interval above)	
Cole Crops Crop Group 5	
Cucurbits Crop Group 9	1 day following preplant burndown application
Fruiting Vegetables Crop Group 8	
Leafy Vegetables Crop Group 4	
Legumes Crop Group 6	
Oil Seeds 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 ETX Herbicide/Defolaint.

## **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 ETX Herbicide/Defoliant with other labeled broadleaf herbicides may be needed for control of some weed species.

Amaranth, Palmer	Kochia	Ragweed, giant
Bedstraw	Ladysthumb	Redmaid
Beggarweed, Florida	Lambsquarters, common	Rocket, London
Beggartick, hairy	Lettuce, prickly	Sesbania, hemp
Bindweed, field	Mallow, common	Shepherd's-purse
Buckwheat, wild	Marestail (suppression)	Sicklepod (suppression)
Canola	Milkthistle	Smartweed, Pennsylvania
Carpetweed	Morningglory, species	Smellmelon
Celery, wild	Mustard, wild (suppression)	Sowthistle, annual
Chickweed	Nettle, stinging	Spurge, leafy
Clover, white	Nightshade, black	Sunflower, common
Cocklebur	Panicle Willowweed	Thistle, Canada
Dandelion, common	Pepperweed	Thistle, Russian
Dock, curly	Pigweed, redroot	Toadflax, Dalmatian
Dollarweed	Pigweed, smooth	Velvetleaf
Eclipta	Pineapple weed	Virginia-creeper
Evening primrose, Cutleaf	Poinsettia, wild	Volunteer cotton (Conventional, GMO
Geranium, Carolina	Poison-ivy	Varieties)
Henbit	Prickly sida (Teaweed)	Volunteer Potato
Horsenettle (suppression)	Purslane, common	Waterhemp, tall
Knotweed, prostrate	Radish, wild	Waterhemp, common
	Ragweed, common	Western tansymustard

#### **TANK MIXTURES**

ETX 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 ETX 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

Add ½ to ¾ of the required amount of water to the spray tank. Start agitation. Add the required amount of ETX Herbicide/Defoliant and the remaining amount of water. 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 ETX Herbicide/Defoliant in a water source greater than or equal to pH 7.5. Always buffer the water source BEFORE adding ETX 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.

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, 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 ¾ 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 inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

## **Temperature and Humidity**

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

## **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which 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, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## **Sensitive Areas**

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

2013-04-01 D-91 092611 Page 7 of 25

## **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 ETX 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 ETX 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.
- 2. 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 Federal, state, and local regulations.

## **APPLICATION AND DOSAGE**

## CORN - field corn, popcorn, seed corn, corn silage, corn stover

Application	Pest	Rate/Acre	Directions for Use
Preplant Burndown	Listed Broadleaf Weeds	0.3 to 1.25 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant 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 exceed 3 applications or 3.4 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 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> </ul>
After Planting Before Crop Emergence	Listed Broadleaf Weeds	0.3 to 1.25 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant 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 1.25 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 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> </ul>
Postemergence	Listed Broadleaf Weeds	0.3 to 0.6 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>ETX 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 apply more than 0.6 fl oz/acre per season for all postemergence use patterns in this crop.</li> <li>Do not make more than 2 applications per season for all postemergence use patterns in this crop.</li> <li>Do not use crop oils or crop oil concentrates for postemergence applications.</li> <li>Do not harvest corn for silage within 50 days after last application of ETX Herbicide/Defoliant.</li> <li>Do not harvest corn for grain or stover within 90 days after last application of ETX Herbicide/Defoliant.</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>

Postemergence Directed	Listed Broadleaf Weeds	0.3 to 0.6 fl oz/acre	<ul> <li>ETX 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 ETX Herbicide/Defoliant 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 apply more than 0.6 fl oz/acre per season for all postemergence use patterns in this crop.</li> <li>Do not make more than 2 applications per season for all postemergence use patterns in this crop.</li> <li>Do not use crop oils or crop oil concentrates for postemergence applications.</li> <li>Do not harvest corn for silage within 50 days after last application of ETX Herbicide/Defoliant.</li> <li>Do not harvest corn for grain or stover within 90 days after last application of ETX Herbicide/Defoliant.</li> <li>Some temporary herbicidal leaf speckling may appear on the crop. This effect is transient and will</li> </ul>
Corn (all uses)			<ul> <li>NOT appear on new growth.</li> <li>Do not apply more than 3.4 fl oz/acre per growing season for all preplant burndown applications.</li> <li>Do not apply more than 1.85 fl oz/acre per growing season for all after planting prior to emergence and postemergence uses.</li> <li>Refer to page 4 for crop rotations/plantback restrictions.</li> <li>Use the higher rate 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	0.3 to 1.25 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant 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 1.25 fl oz/acre per season for this use.</li> <li>The addition of a COC adjuvant at a concentration of 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> </ul>
Postemergence (Hooded)	Listed Broadleaf Weeds	0.3 to 1.25 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 1.25 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	0.3 to 0.6 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 0.6 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		0.2 to 0.55 fl oz/acre	<ul> <li>ETX Herbicide/Defoliant may be used as a preconditioner to enhance the activity of a defoliation application.</li> <li>Apply using 20 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 ETX Herbicide/Defoliant or the use of another defoliant. Refer to the defoliation section below prior to use for complete recommendations.</li> <li>Do not exceed 2 applications or 3.4 fl oz/acre per season for all defoliation applications to cotton.</li> </ul>
Defoliation	Defoliation of Cotton	0.9 to 1.7 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 20 to 30 gallons of water per acre by ground or 5 gallons of water per acre by air.</li> <li>Do not exceed 2 applications or 3.4 fl oz/acre for defoliation of cotton.</li> <li>Applications must be a minimum of 7 days apart.</li> <li>ETX Herbicide/Defoliant may be tank mixed or applied in sequence with other defoliant products such as, but not limited to, Cottonquik®, Cyclone®, Dropp®, Finish®, Folex®, Ginstar®, Gramoxone®, Prep™, and/or Roundup®.</li> </ul>
Cotton (all uses)			<ul> <li>Do not apply more than 5.25 fl oz/acre per growing season to cotton.</li> <li>Pre-Harvest Interval (PHI) = 7 days</li> <li>Refer to page 4 for crop rotations/plantback restrictions.</li> <li>Use the listed higher rates for hard to control weeds.</li> </ul>

## POTATO DESICCATION

ETX Herbicide/Defoliant may be tank mixed or applied in sequence with other desiccants such as diquat for improved desiccation.

Application	Pest	Rate/Acre	Directions for Use
Desiccation	Potato Foliage and Vines Listed Broadleaf Weeds	1.7 to 3.4 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 per acre or 20 to 50 gallons per acre by ground equipment.</li> <li>A repeat application of ETX Herbicide/Defoliant or another desiccant may be needed under certain climatic conditions for complete desiccation.</li> <li>ETX Herbicide/Defoliant may be tank mixed or applied in sequence with other desiccants such as diquat or glufozinate for improved desiccation.</li> <li>Make 1 to 2 applications at a minimum 7-day interval.</li> <li>Do not exceed 2 applications or 6.8 fl oz/acre per season for desiccation.</li> <li>Pre-Harvest Interval (PHI) = 7 days</li> <li>Higher water volumes should be used in dense canopy conditions.</li> </ul>

## **SOYBEAN**

Application	Pest	Rate/Acre	Directions for Use
Preplant Burndown, After Planting Before Crop Emergence	Listed Broadleaf Weeds	0.3 to 1.25 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant 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 1.25 fl oz/acre per season prior to planting and/or emergence of crop.</li> <li>The addition of a COC adjuvant at a concentration of 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> </ul>
Postemergence	Listed Broadleaf Weeds	0.3 to 0.6 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant in a minimum of 5 gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.</li> <li>ETX 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 apply more than 0.6 fl oz/acre for this use per season.</li> <li>Do not make more than 2 applications 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 1.85 fl oz/acre per growing season to soybeans.</li> <li>Do not graze soybean forage or cut for hay within 7 days of last ETX Herbicide/Defoliant application.</li> <li>Do not harvest soybeans for grain within 70 days after last application of ETX Herbicide/Defoliant.</li> </ul>
			<ul> <li>Refer to page 4 for crop rotations/plantback restrictions.</li> <li>Use the higher rate for hard to control weeds.</li> </ul>

## WHEAT, TRITICALE

Application	Pest	Rate/Acre	Directions for Use
Preplant	Listed	0.3 to 1.25	Apply ETX Herbicide/Defoliant in a minimum of 5
Burndown	Broadleaf	fl oz/acre	gallons spray solution per acre by air or 10 gallons
	Weeds		spray solution per acre by ground.
			Do not exceed 3 applications or 3.4 fl oz/acre per
ì			season for preplant burndown uses.
			Allow a minimum of 30 days between applications for
			this use.
	1		The addition of a COC adjuvant at a concentration of     1.0% to 2.0% is recommended for entirely wood.
	1		1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled
			weed species or in low moisture conditions.
After Planting	Listed	0.3 to 1.25	Apply ETX Herbicide/Defoliant in a minimum of 5
Before Crop	Broadleaf	fl oz/acre	gallons spray solution per acre by air or 10 gallons
Emergence	Weeds	11 02,4010	spray solution per acre by ground.
Linergenee			Allow a minimum of 30 days between applications for
			this use.
			Do not apply more than 1.25 fl oz/acre per season
			after planting before emergence of crop.
			The addition of a COC adjuvant at a concentration of
			1.0% to 2.0% is recommended for optimum weed
	1	ı	control. Use the higher COC rate for larger labeled
	<b> </b>		weed species or in low moisture conditions.
Postemergence	Listed	0.3 to 0.6	ETX Herbicide/Defoliant can be applied from crop
	Broadleaf	fl oz/acre	emergence to the appearance of the flag leaf. DO
	Weeds		NOT apply ETX Herbicide/Defoliant to flag leaf foliage.
	1		Apply ETX Herbicide/Defoliant in a minimum of 5     gallone apply solution per care by air or 10 gallone
			gallons spray solution per acre by air or 10 gallons spray solution per acre by ground.
			Do not apply more than 0.6 fl oz/acre for this use per
			season.
			Allow a minimum of 30 days between applications for
			this use.
	i		Do not apply more than 2 applications per season.
			The addition of a NIS adjuvant at a concentration of
			0.25% is recommended for optimum weed control.
			Do not harvest wheat or triticale for grain within 60
•		•	days after last application of ETX Herbicide/Defoliant.
			Some temporary herbicidal leaf speckling may appear
			on the crop. This effect is transient and will NOT
	<u> </u>		appear on new growth.
Wheat, Triticale (	aii uses)		Do not apply more than 3.4 fl oz/acre per growing     accept for all proplant burndown applications.
			season for all preplant burndown applications.
			Do not apply more than 1.85 fl oz/acre per growing     season for all after planting prior to emergence and
			season for all after planting prior to emergence and postemergence uses.
	•		Do not harvest wheat or triticale for hay within 21 days
			of the last ETX Herbicide/Defoliant application.
			Refer to page 4 for crop rotations/plantback
			restrictions.
			Use the higher rate for hard to control weeds.

**BULB VEGETABLES (Crop Group 3)** - garlic, Elephant garlic, leek, dry bulb, green and Welch onion, shallot

**CEREAL GRAINS (Crop Group 15)** - barley, buckwheat, corn, pearl and proso millet, oats, popcorn, rice, rye, sorghum, teosinte, tricticale, wheat, wild rice

**COLE (BRASSICA) CROPS (Crop Group 5)** - broccoli, Chinese broccoli, broccoli raab, Brussels sprouts, cabbage, Chinese cabbage both bok choy and napa, Chinese mustard cabbage, cauliflower, cavalo broccolo, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens

**CUCURBITS (Crop Group 9)** - chayote, Chinese waxgourd, citron melon, cucumber, gherkin, edible gourd, balsam apple, balsam pear, bitter melon, Chinese cucumber, muskmelons 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, winter and summer squash species, watermelon

FRUITING VEGETABLES (Crop Group 8) - eggplant, ground cherry, pepino, pepper, including bell pepper, chili pepper, cooking pepper, pimento, sweet pepper, tomatillo, tomato

**LEAFY VEGETABLES (Crop Group 4)** - amaranth, arugula, cardoon, celery, Chinese celery, celtuce, chervil, edible-leaved chrysanthemum, corn salad, garden cress, upland cress, dandelion, dock, endive, fennel, lettuce, orach, parsley, purslane, radicchio, rhubarb, spinach, swiss chard

**LEGUME VEGETABLES (Crop Group 6)** - beans, including grain lupin, sweet lupin, white lupin, and white sweet lupin, field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, Tepary bean, wax bean, adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, broadbean, yard-long bean, broad bean, chickpea, guar, Jackbean, Lablab bean, lentil, dwarf pea, edible podded pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea, pigeon pea, soybean, sword bean

OIL SEED CROPS (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 seen, niger seed, oil radish, poppy seed, rapeseed [canola], rose hip, safflower, sunflower, sesame, stokes aster, sweet rocket, tallowwood, tea oil plant, and Vernonia

ROOT AND TUBER VEGETABLES (Crop Group 1) - arracacha, arrowroot, Chinese and Jerusalem artichoke, garden beet, sugar beet, edible burdock, edible canna, carrot, bitter cassava, sweet cassava, celeriac, chayote, chervil, chicory, chufa, dasheen, ginger, ginseng, horseradish, leren, parsley, parsnip, potato, radish, daikon, rutabaga, salsify, skirret, sweet potato, tanier, turmeric, turnip, yam bean, true yam

## SUGARCANE

Application	Pest	Rate/Acre	Directions for Use
Pre-plant Burndown	Listed Broadleaf Weeds	0.3 to 1.25 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 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>Use the higher rate for hard to control weeds.</li> <li>Refer to page 4 for crop rotations/plantback restrictions</li> <li>Do not exceed 3 applications or 3.4 fl oz/acre per season.</li> <li>Allow a minimum of 30 days between applications for this use.</li> </ul>

## **Bearing and Non-Bearing:**

**GRAPES** 

**OLIVE TREES** 

**POMEGRANATES** 

## **POME FRUIT (Crop Group 11)**

apple, crabapple, loquat, mayhaw, oriental pear, pear, quince

## **STONE FRUIT (Crop Group 12)**

apricot, cherry (sweet and tart), nectarine, peach, plum (including chickasaw plum, damson plum, and Japanese plum), plumcot, prune

## **TREE NUT (Crop Group 14)**

almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert (hazelnut), macadamia nut, pecan, pistachio, walnut (black and English)

Appli- cation	Pest	Rate/ Acre	Maximum Applica-tions Per Year	Directions for Use
Post- harvest, Dormant, Pre-bloom	Listed Broadleaf Weeds	0.5 to 2.0 fl oz/acre	Do not exceed 3 applications per season for this use.	<ul> <li>Do not exceed 3.4 fl oz/acre per season for all post-harvest, dormant, and prebloom applications combined.</li> <li>Do not exceed 3.4 fl oz/acre per season for all in season applications combined.</li> <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</li> </ul>
	Sucker Management*	1.5 to 2.0 fl oz/acre	Do not exceed 2 applications per season for this use.	concentration of 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.  • Do not allow spray to drift onto desirable
In-Season	Listed Broadleaf Weeds	0.5 to 2.0 fl oz/acre	Do not exceed a combined total of 2	fruit, foliage or vines, as damage will occur.  • Avoid contact with green, uncallused bark of young vines, established less than one
	Sucker Management*	1.5 to 2.0 fl oz/acre	applications per season for these uses.	year, unless protected from spray contact by non-porous wraps, grow tubes, or waxed containers.  Use the higher rate for hard to control weeds.  Allow a minimum of 30 days between applications for this use.  Pre-Harvest Interval (PHI) = 0 days.  For the management of undesirable sucker growth on the basal portion of trunks, root sprouts and vine trunks. Growth must be controlled when the tissue is young, immature and/or not hardened off.

\* Note: For use in California for sucker management only on Grapes and Pomegranates. Not for use in California for sucker management on Olive Trees, Pome Fruit, Stone Fruit, and Tree Nuts.

## **Bearing and Non-Bearing:**

## DATES, FEIJOA, FIGS, KIWI FRUIT, MANGO, PERSIMMON

Application	Pest	Rate/ Acre	Maximum Applications Per Year	Directions for Use
Post-harvest, Dormant, Prebloom	Listed Broadleaf Weeds	0.5 to 2.0 fl oz/acre	Do not exceed 3 applications per season for this use.	<ul> <li>Do not exceed 3.4 fl oz/acre per season for all post-harvest, dormant, and prebloom applications combined.</li> <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</li> </ul>
	Sucker Management*	1.5 to 2.0 fl oz/acre	Do not exceed 2 applications per season for this use.	concentration of 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.  • Do not allow spray to drift onto desirable fruit, foliage or vines/trees, as damage will occur.  • Avoid contact with green, uncallused bark of young trees/vines, established less than one year, unless protected from spray contact by non-porous wraps, grow tubes, or waxed containers.  • Use the higher rate for hard to control weeds.  • Allow a minimum of 30 days between applications for this use.  • 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.

## **Non-Bearing Only:**

## DATES, FEIJOA, FIGS, KIWI FRUIT, MANGO, PERSIMMON

Application	Pest	Rate/ Acre	Maximum Applications Rate/Year	Directions for Use
In-Season	Listed Broadleaf Weeds	0.5 to 2.0 fl oz/acre	Do not exceed a combined total of 2 applications per season for these uses.	<ul> <li>Do not exceed 3.4 fl oz/acre per season for all in season applications combined.</li> <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 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low</li> </ul>
	Sucker Management*	1.5 to 2.0 fl oz/acre		<ul> <li>moisture conditions.</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 nonporous wraps, grow tubes, or waxed containers.</li> <li>Use the higher rate for hard to control weeds.</li> <li>Allow a minimum of 30 days between applicationsfor this use.</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>

\*Not for sucker management use on these crops in California.

## **PASTURE AND RANGELAND**

Pest	Rate/Acre	Directions for Use
Listed Broadleaf Weeds	0.5 to 1.8 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 3.6 fl oz/acre per season for this use.</li> <li>Livestock may graze treated areas as soon a the spray solution has dried on the foliage.</li> <li>Refer to page 4 for crop rotations/plantback restrictions.</li> <li>Use the higher rate for hard to control weeds.</li> </ul>

## **FALLOW BED AND CROP STUBBLE**

Application	Pest	Rate/ Acre	Directions for Use
Preplant Burndown	Listed Broadleaf Weeds	0.3 to 1.25 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant 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 3.4 floz/acre during the fallow period.</li> <li>The addition of a COC adjuvant at a concentration of 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>Refer to page 4 for crop rotations/plantback restrictions.</li> <li>Use the higher rate for hard to control weeds.</li> </ul>

# NON-CROPLAND, UNCULTIVATED AGRICULTURAL AREAS, CONSERVATION RESERVE PROGRAM LAND/FEDERAL SET-ASIDE ACREAGE\* (NON FOOD PRODUCING)

Pest	Rate/Acre	Directions for Use
Listed Broadleaf Weeds	0.3 to 1.25 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant 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 3.4 fl oz/acre per year.</li> <li>The addition of a COC adjuvant at a concentration of 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>Refer to page 4 for crop rotations/plantback restrictions.</li> <li>Use the higher rate for hard to control weeds.</li> </ul>

<sup>\*</sup>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, NURSERIES AND ORNAMENTAL PLANTINGS, CHRISTMAS TREES AND CONIFER PLANTATION SITE PREPARATION, RAILROADS, ROADSIDE AND UTILITY RIGHTS-OF-WAY, FUEL TANK FARMS AND PUMPING STATIONS, DRY DITCHES AND DITCHBANKS, VACANT LOTS, OR OTHER AGRICULTURAL AND INDUSTRIAL NON-CROP SITES

Pest	Rate/Acre	Directions for Use
Listed Broadleaf Weeds	0.35 to 2.0 fl oz/acre	<ul> <li>Apply ETX Herbicide/Defoliant in a minimum of 20 to 40 gallons spray solution per acre by ground.</li> <li>Avoid contact with desirable vegetation.</li> <li>The addition of a COC adjuvant at a concentration of 1.0% to 2.0% is recommended for optimum weed control. Use the higher COC rate for larger labeled weed species or in low moisture conditions.</li> <li>Do not make more than 3 applications or exceed 6.0 fl oz/acre per season.</li> <li>Use the higher rate for hard to control weeds.</li> <li>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.</li> </ul>

ESTABLISHED ORNAMENTAL TURF LAWNS (INDUSTRIAL AND INSTITUTIONAL), PARKS, CEMETERIES, ATHLETIC FIELDS, GOLF COURSES (FAIRWAYS, APRONS, TEES, AND ROUGHS), SOD FARMS, AND SIMILAR TURF AREAS. NOT FOR USE ON RESIDENTIAL LAWNS OR OTHER RESIDENTIAL 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**

Make an appropriate amount of spray concentrate for the area to be treated by adding 5.0 fl oz of ETX Herbicide/Defoliant to 120 fl oz of water (e.g., 0.5 fl oz of ETX Herbicide/Defoliant to 12 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)

Not for residential use. For commercial use only. Not for use by homeowners.

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:	0.62	4	1000
bahiagrass, common bermudagrass, centipedegrass, St. Augustine grass, zoysia grass	0.31	2	500

Entire lawn: Dial Type Hose-End Sprayer

Not for residential use. For commercial use only. Not for use by homeowners.

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.

- 1) 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 non-treatment areas including flower beds, shrub beds, driveways and sidewalks.
- 2) The application rate of this product is indicated in the following table for every per 1,000 square feet of lawn area. Add the appropriate amount of this product to the spray bottle, [jar], [reservoir], as indicated in the table for every 1,000 sq. ft. of 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)
Cool cooper arrange	1000	0.62	
Cool season grasses:	5000	3.10	1.25 fl oz
bluegrass, fescue, ryegrass	8000	4.97	

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

NURSERIES AND ORNAMENTAL PLANTINGS; SODFARMS; CHRISTMAS TREES; ESTABLISHED ORNAMENTAL TURF. NOT FOR USE ON RESIDENTIAL LAWNS OR OTHER RESIDENTIAL AREAS.

**Turfgrass Tolerance** 

Established turfgrasses tolerant to application of ETX Herbicide/Defoliant at labeled rates are listed below. For turfgrass species not listed on this label, the user should apply ETX 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 ETX 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 ETX 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 ETX Herbicide/Defoliant is tank mixed with another product.

2013-04-01 D-91 092611 Page 22 of 25

Warm Season Turfgrasses (common and hybrid bermudagrass, centipedegrass, St. Augustinegrass, zoysiagrass). Warm season turfgrasses listed above are generally tolerant to applications of ETX Herbicide/Defoliant at labeled rates. Centipedegrass may exibit a slight yellow 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 observe all label restrictions regarding turfgrass tolerance when ETX Herbicide/Defoliant is tank mixed with another product.

## Newly Seeded, Sodded, or Sprigged Turfgrass

ETX 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 ETX Herbicide/Defoliant may be seeded or overseeded one day following application.

#### **Dormant Turfgrass**

Applications of ETX 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 ETX Herbicide/Defoliant at rates specified in the dosage table below for control of broadleaf weeds. ETX Herbicide/Defoliant is a broadleaf contact herbicide. ETX Herbicide/Defoliant may be tank mixed with other registered grass herbicides for control of grassy weeds. Avoid contact with desirable vegetation.

## **Spray Volume**

ETX 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 ETX 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 ETX Herbicide/Defoliant. Follow manufacturer's recommended use rates for specific sites.

Use	Rate/Acre	Directions for Use
Nursery	When not tank mixing with other herbicides:	Do not make more than 3
and	Apply ETX Herbicide/Defoliant at rates of 0.5 to 2.0 fluid	applications or exceed 6.0
ornamental	ounces per acre in 20 to 40 GPA for control of seedling,	fl oz/A per year using
plantings	non-mature winter and summer annual weeds and/or for	ground equipment.
	temporary burndown of weeds listed in Weeds Controlled.	Allow a minimum of 30
Sodfarms	Tank mixes including other broadleaf herbicides with ETX	days between
	Herbicide/Defoliant may be needed for control of larger	applications.
Christmas	winter and summer annual weeds.	

2013-04-01 D-91 092611 Page 23 of 25

## trees

## Established Ornamental turf

When tank mixing with other herbicides: Apply ETX Herbicide/Defoliant at rates of 0.35 to 0.75 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 *Weeds Controlled*. 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.

- Do not apply by air.
- Do not apply when environmental conditions favor spray drift or poor spray coverage.
- Avoid spray drift onto nontarget susceptible plants such as vegetables, flowers, ornamental, trees, shrubs, and other desirable plants.
- Do not apply to lawns or turf where clovers and carpetgrass are desirable.

**Backpack Sprayer Dosage Chart** 

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 ETX Herbicide/Defoliant. Use the chart below to determine the quantity of ETX Herbicide/Defoliant to be added to a backpack sprayer having a capacity of 3 to 5 gallons to equal a 0.75 fl oz/A rate.

Backpack tank capacity (gallons)	Spray volume (gallons/A)	fluid oz product per tank for 0.75 fl oz/A	ml product per tank for 0.75 fl oz/A
	20	0.12	3.5
3 .	30	0.076	2.2
Γ	40	0.056	1.7
	20	0.15	4.4
4	30	0.10	3.0
Γ	40	0.076	2.2
	20	0.19	5.6
5	30	0.13	3.7
Γ	40	0.096	2.8

For smaller volume sprayers less than three (3) gallons in size, measure 0.015 to 0.035 fl. oz. (0.5 to 1 ml) of ETX Herbicide/Defoliant per one (1) gallon of water when tank mixing with other herbicides to equal a 0.75 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 0.75 fl oz/A	ml product per gallon water for 0.75 fl oz/A
20	0.035	1.0
30	0.025	0.7
40	0.015	0.5

2013-04-01 D-91 092611 Page 25 of 25

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. **Pesticide Storage:** Store in a cool dry area under lock and key.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling: Nonrefillable container. DO NOT reuse or refill this container. Triple rinse (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 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 or local authorities, by burning. If burned, stay out of smoke.

#### 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.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of NAI is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, NAI disclaims any liability whatsoever for incidental or consequential damages, including, but not limited to, liability arising out of breach of contract, express or implied warranty (including warranties of merchantability and fitness for a particular purpose), tort, negligence, strict liability, or otherwise.

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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D-91 092611