



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

August 7, 2017

Michael Kellogg
Agent
Willowood, LLC
c/o Pyxis Regulatory Consulting, Inc.
4110 136th St. Ct. NW
Gig Harbor, WA 98332

Subject: Label Amendment – Revising label for consistency with other ethofumesate products
Product Name: Willowood Ethofumesate Turf
EPA Registration Number: 87290-2
Application Date: 5/12/2017
Decision Number: 529681

Dear Michael Kellogg:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

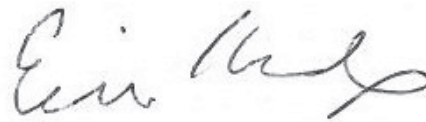
A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Page 2 of 2
EPA Reg. No. 87290-2
Decision No. 529681

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Nathan Mellor by phone at 703-347-8562, or via email at mellor.nathan@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft". The signature is written in a cursive style with a large, sweeping flourish at the end.

Erik Kraft, Product Manager 24
Fungicide and Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

Willowood Ethofumesate Turf

NOT FOR USE ON COMMERCIAL SOD FARMS IN ARIZONA
SUSPENSION CONCENTRATE HERBICIDE

Selective Herbicide Intended For Use By Professional Applicators On Ornamental Turf Only

ACTIVE INGREDIENT:	% by Weight
Ethofumesate (2-ethoxy-2, 3-dihydro-3, 3-dimethyl-5-benzofuranyl methanesulfonate)	42.0%
OTHER INGREDIENTS:	58.0%
TOTAL:	100.0%

This product contains 4.0 lbs. active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION PRECAUCION

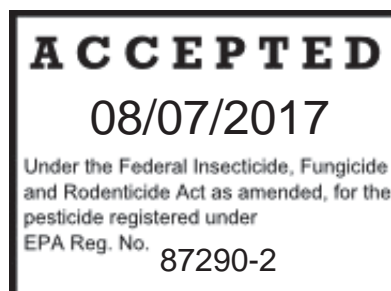
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail)

FIRST AID	
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything to an unconscious person.
In inhaled:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information on product use, etc., call the National Pesticides Information Center (NPIC) at 1-800-858-7378 Mon. - Fri. 8:00 am to 12:00 pm Pacific Time. For emergencies, call the poison control center at 1-800-222-1222.	

EPA Reg. No. 87290-2

EPA Est. No.

Manufactured for:
Willowood, LLC
1600 NW Garden Valley Blvd., Suite 120
Roseburg, OR 97471



Net Contents:

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

Harmful if swallowed or inhaled. Avoid breathing vapor or spray mist. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All Mixers, Loaders, Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride ≥14 mils or viton ≥14 mils
- Shoes plus socks

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

ENGINEERING CONTROLS 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.

Engineering Controls for: Enclosed Cabs for Aerial Applicators: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

On-Site Closed Mixing and Loading System Engineering Controls for Liquid Formulations:

Mixers and loaders must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)] for Dermal protection, and must:

- wear the personal protective equipment required in the PPE section of this labeling for mixers and loaders as well as a chemical-resistant apron
- wear protective eyewear, if the system operates under pressure, and
- be provided chemical-resistant footwear that is immediately available in an emergency, such as a broken package, spill or equipment breakdown.

USER SAFETY REQUIREMENTS

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not graze livestock on treated turf. Do not feed treated grass clippings to livestock. Read entire Use Precautions and Restrictions, Directions for Use and Condition of Sale and Limitation of Warranty and Liability before using this product.

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 in your State responsible for pesticide regulation.

SHAKE CONTAINER WELL BEFORE USING

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 except for 3 days prior to the harvesting of sod.

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

NON-AGRICULTURAL USE REQUIREMENTS

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

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

Professional pesticide applicators applying to residential turf, including home lawns, parks, and recreation areas must inform their customers that all persons and pets must be kept off the treated turf until sprays have dried.

PRODUCT INFORMATION

Willowood Ethofumesate Turf is a herbicide for use on ornamental turf including golf courses, sod farms, parks, cemeteries and residential or commercial lawns, and after overseeding specific grasses. It may be used on established perennial ryegrass, Kentucky bluegrass, creeping bentgrass, turf-type tall fescue, St. Augustinegrass, and dormant bermudagrass for the control and/or suppression of the annual grasses and broadleaf weeds listed in the tables below. Willowood Ethofumesate Turf is intended for professional use only.

Willowood Ethofumesate Turf has both preemergent and early (two-leaf stage) postemergence activity and works best in programs emphasizing both approaches. Willowood Ethofumesate Turf application is most effective on healthy, vigorously growing turf.

SPRAY DRIFT MANAGEMENT

This chemical can contaminate surface water through spray drift. A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed: Do not apply at wind speeds greater than 15 mph.

Temperature Inversions: Do not make applications into areas of temperature inversion of stable atmospheric conditions.

WEED SPECIES CONTROLLED

PREEMERGENCE

Annual Grasses

Barnyardgrass (*Echinochloa crus-galli*)
Bluegrass, annual (*Poa annua*)
Canarygrass (*Phalaris canariensis*)
Crabgrass, large (*Digitaria sanguinalis*)
Crabgrass, smooth (*Digitaria ischaemum*)
Foxtail, green (*Setaria viridis*)
Foxtail, yellow (*Setaria glauca*)

Annual Broadleaves

Burclover (*Medicago sp.*)
Chickweed, common (*Stellaria media*)
Purslane, common (*Portulaca oleracea*)
Pigweed, redroot (*Amaranthus retroflexus*)

Willowood Ethofumesate Turf will also reduce competition from:

Nutsedge, purple (*Cyperus rotundus*)
Nutsedge, yellow (*Cyperus esculentus*)

POSTEMERGENCE

Annual Grasses

Bluegrass, annual (*Poa annua*)

Annual Broadleaves

Chickweed, common (*Stellaria media*)
Clover, white (*Trifolium repens*)

PREEMERGENCE/EARLY POSTEMERGENCE

Annual Grasses

Crabgrass, large (*Digitaria sanguinalis*)
Crabgrass, smooth (*Digitaria ischaemum*)

USE PRECAUTIONS

- Spray overlap can cause turf injury due to over application.
- This product is most effective on healthy, vigorously growing turf.
- When using Willowood Ethofumesate Turf, overseed to prevent stand thinning as a result of loss of annual bluegrass. Use the rate of Willowood Ethofumesate Turf listed for the overseeded species when overseeding. In mixed stands of established turfgrasses, use the rate listed for the *least* tolerant species.

USE RESTRICTIONS

- Application to residential lawns must only be made by licensed or certified applicators.
- DO NOT OVER APPLY Willowood Ethofumesate Turf. Follow the instructions in this label or damage to non-target turf may result.
- Do not apply more than 1.5 lbs. ai (48 oz. product/A or 1.1 oz. product/1,000 sq. ft.) per year.
- Use a spray colorant or indicator in the spray tank to avoid spray overlapping.
- Do not apply with hand-held or flood jet nozzles because treatments may not be uniform.
- Do not apply this product through any type of irrigation system.
- Do not apply Willowood Ethofumesate Turf for at least 8 weeks after application of a Plant Growth Regulator although an Willowood Ethofumesate Turf program may be initiated on creeping bentgrass 3 weeks after a single application of PRIMO* has been applied.
- Use this product only on golf course fairways, roughs, and tees but at fairway-height only. Do not apply to putting greens.
- Do not apply Willowood Ethofumesate Turf to zoysiagrass and hard or fine fescue to avoid serious injury.

- For sod farm turf: Do not harvest treated sod for 3 days following application.
- Do not graze livestock on treated turf.
- Do not feed treated grass clippings to livestock.

Spray Equipment, Application, and Precautions

Use standard, low-pressure (20 to 50 psi) spray equipment to apply Willowood Ethofumesate Turf. Calibrate spray equipment prior to use and frequently check the equipment during application. Use a spray indicator to aid in even application. Prior to and after applying Willowood Ethofumesate Turf, thoroughly clean and rinse the spray tank and line.

Willowood Ethofumesate Turf + Tank Mixtures:

Willowood Ethofumesate Turf is usually compatible with all tank-mix partners listed on this label. Do not combine Willowood Ethofumesate Turf in the spray tank with pesticides, surfactants, or fertilizers unless compatibility charts or your own prior use has shown that the combination is physically compatible, effective, and non-injurious under your conditions of use. To determine the physical compatibility of Willowood Ethofumesate Turf with other products, use a jar test. 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 (which include suspension concentrates), followed by emulsifiable concentrates and additives/adjuvants 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.

Mixing Procedures for Tank Mixes

1. Add 1/2 - 2/3 of the required amount of water to the spray or mixing tank.
2. With the agitator running, add the tank-mix partner(s) into the tank in the same order as described above in the Willowood Ethofumesate Turf + Tank Mixtures section.
3. Allow the material to completely dissolve and disperse into the mix water.
4. Continue agitation while adding the remainder of the water and the Willowood Ethofumesate Turf to the spray tank. Allow Willowood Ethofumesate Turf to completely disperse.
5. Spray the mixture with the agitator running.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Varietal Tolerance

Ethofumesate (the active ingredient in Willowood Ethofumesate Turf) has been used on the following turfgrass cultivars. However, Willowood Ethofumesate Turf can be used on other cultivars. Prior to large-scale use of Willowood Ethofumesate Turf on cultivars other than those listed below, test a small area for tolerance.

- **CREEPING BENTGRASS-** The following cultivars have shown good to excellent tolerance to Willowood Ethofumesate Turf: Carmen, Cobra, Highland, Lopez, Mariner, National, Penncross, Providence, Putter, Southshore, SR1020, and Viper.
Injury has been occasionally noted on Emerald, Penneagle, and Pennilinks cultivars.
Willowood Ethofumesate Turf may cause serious injury to Cohansey, Colonial, south German varieties, Egmont, Bardot, Tracenta, Allure, Astoria, and SR7100.
- **DORMANT BERMUDAGRASS-** Tifgreen, Tidwarf and Common bermudagrass are more susceptible to Willowood Ethofumesate Turf than hybrid bermudagrass.
- **KENTUCKY BLUEGRASS-** Adelphi, American, Aspen, Asset, Challenger, Classic, Emundi, Huntsville, Georgetown, Glade, Haga, Julic, Liberty, Merit, Midnight, Monopoly, Mystic, Parade, Rugby, Sydsport, Touchdown. NOTE: DO NOT APPLY to Explorer, Limousine, Northstar, RAN I and Total Eclipse.
- **PERENNIAL RYEGRASS-** Acclaim, Blazer, Dasker, Derby, Elka, Fiesta, Goalie, Hunter, Linn, Loretta, Manhattan II, Palmer, Pennfine, Regal, Yorktown.
- **ST. AUGUSTINEGRASS-** Raleigh
- **TURF-TYPE FALL FESCUE-** America, Arid, Mustang

Instructions

- For fall control of annual bluegrass, begin applications of Willowood Ethofumesate Turf during the period of maximum weed germination and end as close to the first killing freeze as possible.
- Make Spring applications during the period of maximum weed germination. Consult your weed science specialist or university extension service for the recommended application timing in your area. Spring applications are most effective following fall applications.

SEE CHART BELOW FOR USE RATES AND TIMINGS AND READ TEXT BELOW FOR SPECIFIC DIRECTIONS FOR EACH TYPE OF GRASS.

Application Rates and Timings

Turf Type	Primary Targets	Application Timing	Use Rate ¹		# of Apps ⁵	Application Interval (Days)	Overseeding Safety Interval ³ (Weeks After Treatment)	Application Safety Interval ⁴ (Weeks After Emergence)
			Oz./Acre	Oz./1,000 Sq. Ft.				
Creeping Bentgrass	Annual Bluegrass	Fall	24	9/16	0-2	21-28	4	4
		Spring ²	24	9/16	0-2	21-28		
Kentucky Bluegrass	Annual Bluegrass	Fall	24	9/16	2	21-28	6	8
Ryegrass	Annual Bluegrass	Fall	32-48	3/4-1.1	0-1	N/A	1-2	1-2
		Spring			0-1	N/A		
St. Augustinegrass (Est. Turf)	Bermudagrass Suppression	Spring	24	9/16	2	21-28	N/A	N/A
Turf-Type Tall Fescue	Annual Bluegrass	Fall	24-48	3/4-1.1	1-2	21-28	0	2-3
Overseeded (ryegrass) Bermudagrass: Dormant Bermudagrass	Annual Bluegrass	Fall	24-48	9/16 – 1.1	1-2	21-28	N/A	N/A
Nondormant Bermudagrass	Annual Bluegrass	Fall	32-36	3/4-7/8	1	N/A	N/A	N/A
Seashore Paspalum	Bermudagrass Suppression	Spring	16	0.37	Multiple ⁶	14	6	N/A

N/A= Not applicable.

¹ Apply Willowood Ethofumesate Turf in 20 to 60 gallons of water per acre or 1 to 3 gallons of water per 1000 sq. ft.

² Only make spring applications after previous fall treatments.

³ After the last treatment of Willowood Ethofumesate Turf, the interval provided applies to overseeding of the specific grass on same type of grass to which Willowood Ethofumesate Turf was applied.

⁴ Willowood Ethofumesate Turf may be applied to specific grass following seed emergence after the specified time interval.

⁵ Do not exceed the maximum single application rate or yearly maximum application rate of 48 oz./acre (i.e. a split application of 24 oz./A once in the spring and once in the fall OR a single application of 48 oz./A in either the spring or the fall).

⁶ Multiple applications not to exceed 9 lbs ai/A/year. Do not apply to turf when foliage is wet or dew is present. Multiple applications are necessary for maximum suppression. The maximum and effective use rate is 0.37 fl oz. of product / 1,000 sq. ft.

INSTRUCTIONS FOR SPECIFIC GRASS TYPES

COOL SEASON TURFGRASSES

Creeping Bentgrass

Apply Willowood Ethofumesate Turf to bentgrass as long as the turf is at a length typically found on fairways (or longer). When applying to bent-grass, use the following guidelines.

- Avoid using Willowood Ethofumesate Turf in areas that are heavily shaded and/or poorly drained.
- Creeping bentgrass tolerance to Willowood Ethofumesate Turf may be improved by tank mixing Willowood Ethofumesate Turf with nitrogen fertilizer (controlled release or soluble) at a rate of 0.1 to 0.25 lb N per 10,000 ft². This may also improve creeping bentgrass conversion in the areas treated.
- Control of annual bluegrass is best achieved by making two applications of Willowood Ethofumesate Turf; one in the fall followed by one in the spring.
- Willowood Ethofumesate Turf works best in the spring if applied after creeping bentgrass has resumed active growth and is fully green.

When overseeding with creeping bentgrass, use the following guidelines:

- After applying Willowood Ethofumesate Turf, wait a minimum of 3-4 weeks before overseeding with bentgrass.
- When an area has been renovated or overseeded with bentgrass, do not apply Willowood Ethofumesate Turf until 3-4 weeks after seedling emergence.

Kentucky Bluegrass

- Delay application of Willowood Ethofumesate Turf to bluegrass until at least 8 weeks after emergence.
- Bluegrass overseeded with ryegrass may be treated with Willowood Ethofumesate Turf 1-2 weeks after ryegrass emergence.

When overseeding with Kentucky Bluegrass use the following guidelines:

- Wait at least six weeks after the last Willowood Ethofumesate Turf application before reseeding with Kentucky bluegrass.
- Note that sod quality during the spring may be diminished following the fall applications of Willowood Ethofumesate Turf. Alternatives to fall application of Willowood Ethofumesate Turf include seeding with dormant bluegrass in the late fall or to delay reseeding until the spring.

Perennial Ryegrass

Control of annual bluegrass in perennial ryegrass is easiest when it is newly emerged, and application of Willowood Ethofumesate Turf is made during the primary period of annual bluegrass germination (and up to 30 days after annual bluegrass emergence) in the fall and/or spring. Consult your local Extension Service or university weed specialist for the date(s) that annual bluegrass germinates in your area.

- For best results, apply Willowood Ethofumesate Turf at 24 oz./A (0.5 oz./1,000 sq. ft.) once in the fall and once in the spring.
- Application in the fall or spring will also reduce competition from selected broadleaf weeds and crabgrass.

When overseeding with perennial ryegrass, use the following guidelines:

- Wait 1-2 weeks (or until the seedlings are approximately 1" tall) before applying Willowood Ethofumesate Turf to the seeded area.
- To the extent possible, remove thatch from the area being seeded as it can diminish the effectiveness of the Willowood Ethofumesate Turf treatment.
- Do not apply mulch or straw to the seeded areas until after Willowood Ethofumesate Turf has been applied.

Turf-Type Tall Fescue

Make Willowood Ethofumesate Turf applications to turf-type tall fescue in the fall. If overseeding with turf-type tall fescue, application of Willowood Ethofumesate Turf may be done at the same time as seeding.

WARM SEASON TURFGRASSES

St. Augustinegrass (Established Turf)

Willowood Ethofumesate Turf suppresses the development of actively growing Bermudagrass in established St. Augustine sod. Apply Willowood Ethofumesate Turf to St. Augustinegrass in the spring and early summer to suppress Bermudagrass and Bermudagrass seedhead formation and/or for control of annual bluegrass.

Restrictions:

- Do not treat St. Augustinegrass in the first six months after germination.
- Do not treat St. Augustinegrass that is under stress or injury to the turf may result.

Precaution:

- Temporary stunting and minor discoloration of St. Augustinegrass may occur after application. If the St. Augustinegrass shows signs of severe yellowing or stunting, discontinue applications.

Use the following guidelines when applying Willowood Ethofumesate Turf to St. Augustinegrass:

- Begin Willowood Ethofumesate Turf applications when Bermudagrass first breaks dormancy in the spring. Application timing is critical to achieve optimum results and will vary depending on location and temperature.
- For best results, make two applications of Willowood Ethofumesate Turf at 24 oz./A (0.5 oz./1,000 sq. ft.) with the second application being made 21-28 days after the first application.
- To improve suppression, each application of Willowood Ethofumesate Turf may be tank-mixed with (Atrazine at up to 2 lb ai/A for first application and 0.75 lb-1 lb ai/A triazine for second or third application).

Overseeded Dormant Bermudagrass

Restrictions:

- Do not make more than two applications at 24 oz./A (0.5 oz./1,000 sq. ft.) OR one application at 48 oz./A (1.0 oz./1,000 sq. ft) of Willowood Ethofumesate Turf when treating nondormant bermudagrass. Treatment to turf that is not fully dormant may cause early injury and/or delayed spring green-up.
- Do not apply Willowood Ethofumesate Turf to Bermudagrass in the 4 weeks prior to breaking winter dormancy. Applications made to Bermudagrass in the 4 weeks prior to breaking dormancy may temporarily delay the normal start of active growth.

Precaution:

- Application of Willowood Ethofumesate Turf to bermudagrass that is stressed due to shade, poorly drained soils, and high traffic may result in increased turf injury. Avoid use of Willowood Ethofumesate Turf or use lower rates under these conditions.

Use the following guidelines when applying Willowood Ethofumesate Turf to Bermudagrass:

- To control annual bluegrass, make applications of Willowood Ethofumesate Turf in late fall (ideally 1-2 weeks after emergence of overseeded perennial ryegrass) on overseeded bermudagrass.
- When Willowood Ethofumesate Turf is applied in late November or early December, applications of 32-36 oz. per acre have shown acceptable control of annual bluegrass with minimum injury to nondormant (or predormant) bermudagrass. If lower rates are used, expect reduced annual bluegrass control. If higher rates are used, increased injury to Bermudagrass may occur.

When overseeding bermudagrass, use the following guidelines:

- Common bermudagrass in fairways or roughs may be more susceptible to herbicide injury than hybrid bermudagrass.
- When making applications to nondormant bermudagrass, keep Willowood Ethofumesate Turf within areas that are overseeded so that the ryegrass will mask any early injury or late transition in the spring that may occur.
- Using a higher than normal seeding rate may be desirable in order to minimize the appearance of thin turf.

Willowood Ethofumesate Turf Mixtures with Fertilizers

Willowood Ethofumesate Turf Impregnation on Dry Bulk Fertilizers

Willowood Ethofumesate Turf may be impregnated on many dry bulk fertilizers (See "1" below) and applied for the control of labeled grasses and broadleaf weeds. All Willowood Ethofumesate Turf label and supplementary literature instructions and precautions regarding rates per acre, soil type, application, and other directions must be followed. All individual State regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the Willowood Ethofumesate Turf fertilizer mixtures. A minimum of 200 pounds and a maximum of 700 pounds of approved fertilizer ingredients impregnated with the appropriate amount of Willowood Ethofumesate Turf must be applied per acre. For impregnating the pesticide on dry fertilizers, use a closed rotary drum type mixer equipped with suitable spraying equipment. Position spray nozzles inside of the mixer to provide uniform spray coverage of the tumbling fertilizer. Spray Willowood Ethofumesate Turf uniformly onto the fertilizer using a fine spray pattern.

The physical properties of fertilizers vary, particularly in liquid absorptive capacity. When absorptivity is sufficient, simple spray impregnation of the fertilizer with Willowood Ethofumesate Turf provides a

satisfactory dry mixture. If the absorptivity is not adequate, use of a highly absorptive powder is required to provide a dry, free-flowing mixture. Microcel E (Johns-Manville Products Corporation) is the recommended absorbent powder. Add separately and uniformly to the prepared pesticide/fertilizer mixture in a quantity that is sufficient to provide a suitably free-flowing mixture. Generally, less than 2% by weight of Microcel E is required.

Calibrate the amount of Willowood Ethofumesate Turf actually required in the formulation of specific fertilizer mixtures carefully for each production operation. This is necessary to ensure that the amount of Willowood Ethofumesate Turf actually contained in the fertilizer mixture applied to the soil represents the correct dosage rate.

Apply bulk fertilizers impregnated with Willowood Ethofumesate Turf immediately, DO NOT STORE.

1. Approved dry fertilizer ingredients for use with Willowood Ethofumesate Turf.

Willowood Ethofumesate Turf Impregnation on Dry Bulk Fertilizers

	N	P	K
Ammonium nitrate	34	0	0
Ammonium sulfate	21	0	0
Ammonium phosphate-sulfate	16	20	0
Diammonium phosphate	18	46	0
Monoammonium phosphate	11	56	0
Potassium chloride	0	0	60
Potassium sulfate	0	0	52
Single superphosphate	0	20	0
Triple superphosphate	0	46	0
Urea	45	0	0

Willowood Ethofumesate Turf Physical Data	
Density	1.15 g/cm ³
Pounds/gallon	9.60
Flashpoint	Non-combustible

Willowood Ethofumesate Turf with Liquid Fertilizer

The following procedure is suggested for evaluation of physical compatibility of Willowood Ethofumesate Turf in mixtures with liquid fertilizers for spray tank applications.

Material Required

1. Willowood Ethofumesate Turf- components of tank sizes if intended for use
2. Liquid fertilizer to be used.
3. Adjuvant for fertilizer tank mix: Complex* or E-Z Mix**
4. Two (or more) one quart wide mouth containers with lids or stoppers
5. Measuring spoons (25 ml pipette or graduated cylinder provides more accurate measurement)
6. Measuring cup, 8 fl. oz. (237 ml)

*Complex, Kalo Baloratories, Inc., Kansas City, MO

**E-Z Mix, United Agri-Products, Greeley, CO

Procedure

1. Pour one pint (473 ml) of the liquid fertilizer into each of the quart containers.
2. Add adjuvant(s) to one or more of the containers and mix; follow label directs of adjuvant.
3. Add the Willowood Ethofumesate Turf and tank mix components to the containers (see rate table below).
4. Close the containers with lids or stoppers and mix contents by inverting the containers ten times.
5. Inspect the surface and body of mixture:
 - a. immediately after mixing

- b. after allowing mixtures to stand quietly for 30 minutes,
- c. immediately after mixing again (invert the containers ten more times).

If uniform mixture does not occur, do not use the spray tank mixture. If any of the mixtures remain uniform for 30 minutes, that mixture may be used in spray tank applications. Should any of the mixtures separate after 30 minutes but remix readily into a uniform mixture with inversion of the container, the mixture may be used provided that the adequate agitation is maintained in the spray tank. If a Willowood Ethofumesate Turf plus fertilizer mixture utilizing an adjuvant is satisfactory, but the one without adjuvant is not, be sure to use the adjuvant in the spray tank at the rate specified on the label which was used in the test.

If non-dispersible oil, sludge, or clumps of solids form in the mixtures, do not use those combinations for spray tank application.

Rate Table for Willowood Ethofumesate Turf Mixtures with Liquid Fertilizers

Gal. of Liquid Fertilizer to be applied per acre	ml or tsp of Willowood Ethofumesate Turf to be added to 1 pint of fertilizer	
	ml	tsp.
20	17.6	3.6
30	12.0	2.4
40	9.0	1.9
50	7.1	1.5
60	6.0	1.2

* Based on field rate of 3.0 lb. ai/acre (3/4 gal/acre) in the fertilizer volumes indicated. Adjust amount of Willowood Ethofumesate Turf added proportionately to correspond with intended field use rate listed on Willowood Ethofumesate Turf label. Add the proportionate amount of tank mix component.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Protect product from freezing temperatures.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, 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 DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable container ≤ 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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[EPA approval date]