

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

March 21, 2019

Elaine Bauer Regulatory Specialist Corteva Agriscience Dow AgroSciences 9330 Zionsville Road Indianapolis, IN 46268

Subject: Label Amendment – Updating Master Label

Product Name: TURFLON ESTER ULTRA

EPA Registration Number: 62719-566

Application Date: 7/12/17 Decision Number: 531724

Dear Ms. Bauer:

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. 62719-566 Decision No. 531724

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 Sarah Meadows by phone at 703-347-0505, or via email at meadows.sarah@epa.gov.

Sincerely,
Emily Schmid

Emily Schmid, Acting Product Manager 25

Herbicide Branch

Registration Division (7505P)

Office of Pesticide Programs

Enclosure

(Base label):

TRICLOPYR GROUP 4 HERBICIDE

## Turflon® Ester Ultra

#### **HERBICIDE**

For the control of annual and perennial broadleaf weeds, bermudagrass, and kikuyugrass in ornamental turf, rangeland and permanent grass pastures, and non-crop areas including industrial manufacturing and storage sites, rights-of-way including electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and in the establishment and maintenance of wildlife openings. Use on these sites may include application to grazed areas.

Active Ingredient:

triclopyr: 3,5,6-trichloro-2pyridinyloxyacetic acid,

 butoxyethyl ester
 60.45%

 Other Ingredients
 39.55%

 Total
 100.00%

Acid equivalent: triclopyr - 43.46% - 4 lb/gal

ACCEPTED

3/21/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 20740 FOO

62719-566

## Keep Out of Reach of Children

## **CAUTION**

### **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

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

Avoid contact with skin, eyes, or clothing. Wear gloves and protective clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

## **Personal Protective Equipment (PPE)**

WPS Uses: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) – for this product, sod farm uses -- must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves (≥14 mils) made of barrier laminate, nitrile rubber, neoprene rubber, or viton
- · Shoes plus socks

Non-WPS Uses: Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) – for this product, non-sod farm uses -- must wear:

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

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

### **Engineering Controls**

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

### **User Safety Recommendations**

Users should:

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

#### **First Aid**

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

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

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

#### **Environmental Hazards**

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

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

## **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

#### (Storage and Disposal for rigid containers 5 gal or less)

## **Storage and Disposal**

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

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

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

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

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

#### (Storage and Disposal for refillable rigid containers larger than 5 gal)

## **Storage and Disposal**

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

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

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

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### (Storage and Disposal for nonrefillable rigid containers larger than 5 gal)

### Storage and Disposal

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

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Refer to inside of label booklet for additional information including Directions for Use.

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

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

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

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Page 4

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Produced for Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268	NET CONTENTS:

(cover/shipping container):

TRICLOPYR GROUP 4 HERBICIDE	TRICLOPYR	GROUP	4	HERBICIDE
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## Turflon® Ester Ultra

#### **HERBICIDE**

For the control of annual and perennial broadleaf weeds, bermudagrass, and kikuyugrass in ornamental turf, rangeland and permanent grass pastures, and non-crop areas including industrial manufacturing and storage sites, rights-of-way including electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and in the establishment and maintenance of wildlife openings. Use on these sites may include application to grazed areas.

Active Ingredient:

triclopyr: 3,5,6-trichloro-2pyridinyloxyacetic acid,

 butoxyethyl ester
 60.45%

 Other Ingredients
 39.55%

 Total
 100.00%

Acid Equivalent: triclopyr – 43.46% - 4 lb/gal

# Keep Out of Reach of Children CAUTION

## Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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## **Precautionary Statements**

## **Hazards to Humans and Domestic Animals**

## CAUTION

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#### **Personal Protective Equipment (PPE)**

WPS Uses: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) – for this product, sod farm uses – must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves (≥14 mils) made of barrier laminate, nitrile rubber, neoprene rubber, or viton
- · Shoes plus socks

Non-WPS Uses: Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) – for this product, non-sod farm uses – must wear:

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

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

#### **Engineering Controls**

When handlers use closed systems, 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.

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#### **Environmental Hazards**

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

#### **Directions for Use**

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

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

#### **Agricultural Use Requirements**

The requirements in this box apply to sod farm uses.

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

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

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

- Coveralls
- Chemical-resistant gloves (>14 mils) made of barrier laminate, nitrile rubber, neoprene rubber, or viton
- Shoes plus socks

#### **Non-Agricultural Use Requirements**

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

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

**Entry Restrictions for Non-WPS Uses:** For applications to turf other than sod farms or turf grown for seed, do not allow entry into areas until sprays have dried.

#### **Storage and Disposal**

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

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

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

#### Nonrefillable containers 5 gallons or less:

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

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

#### Refillable containers 5 gallons or larger:

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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#### **Product Information**

Use Turflon® Ester Ultra herbicide for the control of actively growing annual and perennial broadleaf weeds, bermudagrass, and kikuyugrass in perennial bluegrass, perennial ryegrass, tall fescue, or zoysiagrass ornamental turf including these turfgrasses in sod farms and golf courses, rangeland and permanent grass pastures, and non-crop areas, including industrial manufacturing and storage sites, rights-of-way including electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and in the establishment and maintenance of wildlife openings. Use on these sites may include application to grazed areas.

#### **Use Precautions**

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

#### **Use Restrictions**

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

Do not apply Turflon Ester Ultra directly to, or otherwise permit it to come into direct contact with, cotton, grapes, tobacco, vegetable crops, flowers, fruit or orchard trees, shrubs, or other desirable broadleaf plants. Do not permit spray mists containing Turflon Ester Ultra to drift onto such plants.

To minimize turf injury, do not treat if turf is under heat or drought stress. Reapply Turflon Ester Ultra at 4-week intervals.

Mow newly seeded turf 2 or 3 times before treating. Do not water for 24 hours after application. Do not reseed for 3 weeks after application. (This restriction does not apply when bermudagrass turf is overseeded with perennial ryegrass at a minimum reseeding rate of 400 lb per acre.)

Local conditions may affect the use of herbicides. Consult your local specialist for advice in selecting treatments from this label to best fit local conditions.

- Do not apply to ditches currently being used to transport irrigation water.
- Do not apply where runoff or irrigation water may flow onto agricultural land as injury to crops may result.
- Do not use on other turfgrass species such as bahiagrass, bentgrass, bermudagrass, centipedegrass, or St. Augustinegrass unless injury can be tolerated.
- Do not apply to exposed roots of shallow rooted trees and shrubs.
- Do not apply to golf course greens.
- For spot treatments, do not apply more than 2 quarts of Turflon Ester Ultra per acre or 1.5 fl oz per 1000 sq ft in a single application.
- It is permissible to treat non-irrigation ditch banks, seasonally dry wetlands (such as flood plains, deltas, marshes, swamps, or bogs) and transitional areas between upland and lowland sites where surface water is not present except in isolated pockets due to uneven or unlevel conditions. Do not apply to open water (such as lakes, reservoirs, rivers, streams, creeks, salt water bays, or estuaries).

#### Grazing

- There are no grazing restrictions for livestock or dairy animals on treated areas.
- Portions of grazed areas that intersect treated non-cropland and rights-of-way sites may be treated at up to 8 lb ae per acre if the area to be treated on the day of application comprises no more than 10% of the total grazable area.

**Haying (harvesting of dried forage):** Do not harvest hay for 14 days after application.

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

#### **Resistance Management**

Triclopyr, the active ingredient in this product, is a Group 4 herbicide based upon the mode of action classification system of the Weed Science Society of America. Appropriate resistance management strategies should be followed.

- Development of plant populations resistant to the mode of action of aminopyralid is usually not a problem on non-cropland sites since these sites receive infrequent pesticide applications.
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to an herbicide. Application of an herbicide below its labeled rate may allow more tolerant weeds to survive and a shift to more tolerant biotypes within the treated area.
- Where identified, spreading of resistant weeds to other fields may be prevented by cleaning harvesting and tillage equipment before moving to other areas and by planting weed-free seed.
- Scout before after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as mowing.
- Use tank mixtures with herbicides from a different group if such use is permitted. Where
  information on resistance in target weed species is available, use the less resistance-prone partner
  at a rate that will control the target weed(s) equally as well as the more resistance-prone partner.
  Consult your local extension service or certified crop advisor if you are unsure as to which active
  ingredient is currently less prone to resistance.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- For further information or to report suspected resistance, contact your extension specialist or contact a customer service representative at 800-992-5994.

#### **Avoiding Injurious Spray Drift**

Make applications only when there is little or no hazard from spray drift. Very small quantities of spray, which may not be visible, may seriously injure susceptible plants. Do not spray when wind is blowing toward susceptible crops or ornamental plants that are near enough to be injured. Spray drift can be reduced by keeping the spray boom as low as possible; by using higher volume sprays and lower pressures; using nozzles that deliver larger spray droplets; and by spraying when wind velocity is low.

### **Broadleaf Weeds Controlled by Turflon Ester Ultra**

black medic	curly dock	lespedeza	sweet clover
bull thistle	dandelion	matchweed	vetch
burdock	field bindweed	mustard	wild carrot (Queen Anne's lace)
Canada thistle	goldenrod	oxalis	wild lettuce
chicory	ground ivy	plantain	wild violet
clover	kikuyugrass (1)	ragweed	yarrow
creeping beggarweed	lambsquarters	smartweed	

(1) See control of kikuyugrass under Application Instructions for Turf.

#### **Mixing Instructions**

Add about one-half of the required amount of clean water to the spray tank. Add Turflon Ester Ultra and complete addition of water with agitation running. Mix thoroughly and continue moderate agitation while spraying. When Turflon Ester Ultra is mixed with water, it forms an emulsion, not a solution; separation may occur unless the spray mixture is agitated continuously.

**Tank Mixing:** To improve the spectrum of activity, Turflon Ester Ultra may be tank mixed at a rate of 1/2 to 1 pint per acre with labeled rates of low volatile amine or ester formulations of 2,4-D, MCPP, or other labeled postemergence broadleaf herbicides provided the tank mix product is registered for use on ornamental turf (perennial bluegrass, perennial ryegrass, or tall fescue ornamental turf including these turfgrasses in sod farms and golf courses). Refer to the product labels of tank mix products and follow all appropriate use directions, precautions, and limitations. 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.

## **Application Instructions for Turf**

#### **Broadcast Treatment of Ornamental Turf**

Apply foliage sprays during warm weather, early spring through fall, when weeds are actively growing. Apply 1/2 to 1 quart of Turflon Ester Ultra per acre in enough water to control broadleaf weeds actively growing in perennial bluegrass, perennial ryegrass, zoysiagrass, or tall fescue. Only emerged weeds present at the time of application will be controlled. Apply using equipment that assures uniform coverage of the target area. When treating mature plants or hard to control species, and for applications made during drought conditions, use the higher rates of Turflon Ester Ultra. Applications made under drought conditions may provide less than desirable results.

#### **Spot Treatment of Ornamental Turf**

Mix 3/8 to 3/4 fl oz of Turflon Ester Ultra per 1000 sq ft in enough water to provide uniform coverage of the target area. Apply at any time broadleaf weeds are susceptible.

#### **Control of Kikuyugrass**

Apply Turflon Ester Ultra at a rate of 1/2 to 1 quart per acre. To improve activity, MSMA herbicide may be tank mixed with the 1/2 quart per acre rate of Turflon Ester Ultra. Three to 4 additional applications at 4-to 6-week intervals may be required to achieve control of kikuyugrass.

#### **Suppression and Control of Bermudagrass**

Apply Turflon Ester Ultra at the rate of 1 quart per acre. Three to 4 additional applications at 4-week intervals are required for adequate suppression of bermudagrass and to allow fescue or other desired turfgrass species to dominate. To improve suppression and control of bermudagrass, tank mix 1 quart of Turflon Ester Ultra per acre with a postemergence grass herbicide registered for this use pattern. Three to 4 additional applications of this tank mix at 4-week intervals should be made to achieve control. Reseeding following application will accelerate the transition to cool season turf.

## Suppression of Bermudagrass When Overseeding with Perennial Ryegrass in the States of Arizona, California, Nevada, New Mexico, and Utah

Regulation of bermudagrass growth by applying Turflon Ester Ultra is characterized by slowing and/or stopping of growth. Some browning of the bermudagrass may also occur. Hybrid varieties of bermudagrass are more susceptible to growth regulation than common bermudagrass and the effects may be more pronounced. The degree of growth regulation and browning is rate-related. Test the growth regulation effect of Turflon Ester Ultra on small areas until the user is comfortable with the results in his particular turf management system. A rate can then be chosen that will provide the desired level of response. The length of the growth regulation effect is also rate-related with the higher rates providing a longer period of suppression. The overseeded ryegrass will not be affected by this treatment. Do not apply to golf course putting greens.

Apply 4 to 8 fl oz of Turflon Ester Ultra per acre to hybrid bermudagrass and 6 to 10 fl oz of Turflon Ester Ultra per acre to common bermudagrass.

**Prior to overseeding:** Apply to fairways from 2 weeks period to overseeding to just before overseeding. For best results, apply Turflon Ester Ultra prior to any aggressive verticutting, scalping, or other seedbed preparation practices to ensure that adequate leaf surface of bermudagrass is available for update of Turflon Ester Ultra. A single application of Turflon Ester Ultra prior to overseeding usually provides about 30 days of bermudagrass growth suppression.

**After overseeding:** If temperatures are sufficient to support active growth of bermudagrass, additional applications of Turflon Ester Ultra can be made to extend the plant growth regulation effect. If additional applications are required, make them after the overseeded ryegrass is established, approximately 3 weeks after seeding. Allow a minimum of 4 weeks between applications.

## **Application Instructions for Non-Crop Areas**

Non-crop areas including industrial manufacturing and storage sites, rights-of-way including electrical power lines, communication lines, pipelines, roadsides, railroads, fencerows, non-irrigation ditch banks, and in the establishment and maintenance of wildlife openings. Use on these sites may include application to grazed areas.

### **Mixing Directions**

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

#### **Oil-Water Mixture Sprays**

Prepare a premix of oil, surfactant, and Turflon Ester Ultra in a separate container using diesel fuel, fuel oil, or kerosene plus an emulsifier such as Sponto 712 or Triton X-100. Conduct a jar test to check spray mix compatibility before preparing oil-water emulsion sprays in the mixing tank. Do not allow any water or mixtures containing water to get into the premix or Turflon Ester Ultra since a thick "invert" (water in oil) emulsion may form that will be difficult to break. Such an emulsion may also be formed if the premix of Turflon Ester Ultra is put into the mixing tank before the addition of water. Fill the spray tank about 1/2 full with water, then slowly add the premix with continuous agitation, and complete filling the tank with water. Continue moderate agitation.

#### **Oil Mixture Sprays for Basal Treatment**

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

#### **Plants Controlled**

#### **Woody Plants Controlled**

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

- (1) For best control, use either a basal bark or cut stump treatment.
- (2) For complete control, re-treatment may be necessary.

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

#### **Annual and Perennial Broadleaf Weeds**

- (1) Sericea lespedeza: Apply 1 to 2 pints of this product per acre. For best results, apply after maximum foliage development in the late spring to early summer, but prior to bloom.
- (2) Sulfur cinquefoil: Apply 1 to 2 pints of this product per acre. For best results, apply to plants in the rosette stage.
- (3) Tropical soda apple: Apply 2 pints of this product per acre when tropical soda apple plants reach the first flower stage. For best results, apply in a total spray volume of 40 gallons per acre using ground equipment. An agricultural surfactant may be added at the manufacturer's labeled rate to provide more complete wetting and coverage of the foliage. Spot treatments may be used to control sparse plant stands. For spot treatment use a 1 to 1.5% solution of Turflon Ester Ultra in water (1 to 1 1/2 gallons of Turflon Ester Ultra in 100 gallons total spray mixture) and spray the entire plant to completely wet the foliage. In Florida, control of tropical soda apple may be improved by using the following management practices:
  - Mow plants to a height of 3 inches every 50 to 60 days or whenever they reach flowering. Continue the mowing operation through April.
  - In late May to June (50 to 60 days after the April mowing), apply this product as a broadcast treatment.
  - Use spot treatment to control any remaining plants or thin stands of plants that germinate following a broadcast treatment.

## **Application Methods**

- Apply no more than 2 lb ae of triclopyr (2 quarts of Turflon Ester Ultra) per acre per growing season
  on range and pasture sites (except for individual plant treatments like basal or cut surface
  applications), including rights-of-way, fence rows, or any area where grazing or harvesting is allowed.
- Triclopyr may be used at rates up to 8 lb ae (8 quarts of Turflon Ester Ultra) per acre per year on non-crop areas including industrial manufacturing and storage sites, non-grazed portions of rights-of-way including electrical power lines, communication lines, pipelines, roadsides, and railroads, fence rows, and non-irrigation ditch banks. Portions of grazed areas that intersect treated non-cropland and rights-of-way sites may be treated at up to 8 lb ae per acre if the area to be treated on the day of application comprises no more than 10% of the total grazable area.

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

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.

For best results apply when woody plants and weeds are actively growing. When hard to control species such as ash, blackgum, choke cherry, elm, maples (other than vine or big leaf), oaks, pines, or winged elm are prevalent, during applications made during late summer when the plants are mature, or during drought conditions, use the higher rates of Turflon Ester Ultra alone or in combination with Graslan L or Tordon 22K herbicide. Graslan L and Tordon 22K are restricted use pesticides. Graslan L and Tordon 22K are not registered for use in the states of California and Florida.

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

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

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

## **Foliage Treatment With Ground Equipment**

#### **High Volume Foliage Treatment**

For control of woody plants, use Turflon Ester Ultra at the rate of 2 to 6 quarts per 100 gallons of spray mixture, or Turflon Ester Ultra at 2 to 4 quarts may be tank mixed with labeled rates of 2,4-D low volatile ester herbicide, Graslan L, or Tordon 22K and diluted to make 100 gallons of spray. Do not apply more than 2 gallons of Turflon Ester Ultra per acre. Apply at a volume of 100 to 400 gallons of total spray per acre depending upon size and density of woody plants. Graslan L and Tordon 22K are not registered for use in the states of California and Florida. When tank mixing, follow applicable use directions and precautions on each manufacturer's label.

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

**Table 1:** The following table is provided as a guide to the user to achieve the proper rate of Turflon Ester Ultra on non-cropland sites.

Total Spray Volume (gallons/acre)	Non-Cropland Sites (qts/100 gallons of spray) <sup>2</sup>
400	2
300	2.7
200	4
100	8
50	16
40	20
30	26.7
20	40
10	80

<sup>&</sup>lt;sup>1</sup>Do not exceed the maximum use rate of 6 quarts of Turflon Ester Ultra (6 lb ae of triclopyr) per acre per year.

<sup>&</sup>lt;sup>2</sup>Do not exceed the maximum use rate of 8 quarts of Turflon Ester Ultra (8 lb ae of triclopyr) per acre per year for non-grazable areas, or 2 quarts (2 lb ae of triclopyr) per acre per year for grazed areas, except on portions of grazed areas that meet the following requirement. Portions of grazed areas that intersect

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

<sup>3</sup>Apply no more than 1/2 gallon (2 lb ae) per acre per growing season on rangeland, permanent grass pastures, and conservation reserve program acres, including pasture fence rows and non-irrigation ditch banks within these areas, or any area where grazing is allowed unless using basal bark or cut surface treatments.

#### **Low Volume Foliar Treatment**

To control susceptible woody plants, mix up to 5% v/v of Turflon Ester Ultra in water and apply 10 to 100 gallons of finished spray. Adjust the spray concentration of Turflon Ester Ultra and total spray volume per acre according to the size and density of target woody plants and kind of spray equipment used. With low volume sprays, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars (see Use Precautions and Use Restrictions). For best results, add a surfactant to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a truck-mounted spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush.

See Table 1 for relationship between mixing rate, spray volume, and maximum application rate.

**Tank Mixing:** As a low volume foliar spray, up to 12 quarts of Turflon Ester Ultra may be applied in tank mix combination with labeled rates of Tordon 22K or Graslan L in 10 to 100 gallons of finished spray. Graslan L and Tordon 22K are not registered for use in the states of California and Florida.

## **Broadcast Applications With Ground Equipment**

Apply this product using equipment that will assure thorough and uniform coverage at spray volumes applied. See Table 1 for relationship between mixing rate, spray volume, and maximum application rate.

#### **Woody Plant Control**

**Foliage Treatment:** Use 4 to 8 quarts of Turflon Ester Ultra in enough water to make 5 gallons or more per acre of total spray, or 1 1/2 to 3 quarts of Turflon Ester Ultra may be combined with labeled rates of 2,4-D low volatile ester, Graslan L, or Tordon 22K in sufficient water to make 5 gallons or more per acre of total spray. Graslan L and Tordon 22K are not registered for use in the states of California and Florida.

#### **Broadleaf Weed Control**

Use Turflon Ester Ultra at rates of 1 to 4 quarts in a total volume of 5 gallons or more per acre as a water spray mixture. Apply anytime weeds are actively growing. Turflon Ester Ultra at 0.25 to 3 quarts may be tank mixed with labeled rates of 2,4-D amine or low volatile ester, Tordon 22K, or Graslan L to improve the spectrum of activity. For thickened (high viscosity) spray mixtures, Turflon Ester Ultra can be mixed with diesel oil or other inverting agent. When using an inverting agent, read and follow the use directions and precautions on the product label. Graslan L and Tordon 22K are not registered for use in the states of California and Florida.

## Aerial Application (Helicopter only on all sites except fixed wing may be used on rangeland and pasture applications)

Aerial sprays should be applied using suitable drift control measures (see Use Precautions and Use Restrictions).

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

Use 4 to 8 quarts of Turflon Ester Ultra alone, or 3 to 4 quarts of Turflon Ester Ultra in a tank mix combination with labeled rates of 2,4-D low volatile ester, Graslan L, or Tordon 22K and apply in a total spray volume of 10 to 30 gallons per acre. Use the higher rates and volumes when plants are dense or under drought conditions. Graslan L and Tordon 22K are not registered for use in the states of California and Florida.

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

#### Basal Bark, Dormant Stem, and Cut Surface Treatments

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

#### Conventional Basal Bark Treatment

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

#### Low Volume Basal Bark Treatment

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 20 to 30 gallons of Turflon Ester Ultra in enough oil to make 100 gallons of spray mixture. Apply with a backpack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground in a manner that thoroughly wets the lower stems, including the root collar area, but not to the point of runoff. Herbicide concentration should vary with size and susceptibility of species treated. Treatments may be applied throughout the year including when snow is present. Efficacy may be reduced when stem surfaces are saturated with water. See Table 1 for relationship between mixing rate, spray volume, and maximum application rate. **Mixing with oil requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

**Turflon Ester Ultra Plus Tordon 22K in Oil Tank Mix:** Turflon Ester Ultra and Tordon 22K may be used in tank mix combination as a low volume basal bark treatment to improve control of certain woody species such as ash, elm, maple, poplar, aspen, hackberry, oak, oceanspray, birch, hickory, pine, tanoak, cherry, locust, sassafras, and multiflora rose. See product bulletin for mixing instructions. Tordon 22K is not registered for use in the states of California and Florida.

#### **Streamline Basal Bark Treatment (Southern States)**

To control or suppress susceptible woody plants for conifer release, mix 20 to 30 gallons of Turflon Ester Ultra in enough oil to make 100 gallons of spray mixture. Streamline basal bark treatments are most effective on stems less than 4 inches in basal diameter. Apply with a backpack or knapsack sprayer using equipment that provides a directed straight stream spray. Apply the spray in a 2- to 3-inch wide band to one side of stems less than 3 inches in basal diameter. When the optimum amount of spray mixture is applied, the treated zone should widen to encircle the stem within approximately 30 minutes. Treat both sides of stems which are 3 to 4 inches in basal diameter. Direct the spray at bark that is approximately 12 to 24 inches above ground. Pines (loblolly, slash, shortleaf, and Virginia) up to 2 inches in diameter breast height (dbh) can be controlled by directing the spray at a point approximately 4 feet above ground. Vary spray mixture concentration with size and susceptibility of the species being treated. Better control is achieved when spray is applied to thin juvenile bark and above rough thickened mature bark. This technique is not recommended for scrub and live oak species, including blackjack, turkey, post, live, bluejack and laurel oaks, or bigleaf maple. Apply anytime, including winter months, except when snow or water prevent spraying at the desired height above ground level. Note: Best results with some hardwood species occur when applications are made from approximately 6 weeks prior to leaf expansion in the spring until approximately 2 months after leaf expansion is completed. Mixing with oil requires vigorous agitation to form an oil solution. Once a solution is formed it will stay stable.

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

The treatment band may be positioned at any height up to the first major branch. For best results apply the band as low as possible. Spray mixture concentration should vary with size and susceptibility of species to be treated. **Mixing with oil requires vigorous agitation to form an oil solution.** Once a solution is formed it will stay stable.

#### **Thinline Basal Bark Treatment**

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

#### **Dormant Stem Treatment**

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

High volume and low volume applications using backpacks deliver approximately the same amount of herbicide per acre but differ in delivery volumes to achieve that rate.

#### **High Volume Applications**

Mix 4 to 8 quarts of Turflon Ester Ultra in 2 to 3 gallons of crop oil concentrate or other recommended oil and add this mixture to enough water to make 100 gallons of spray solution. Use continuous adequate agitation. Apply using low pressure (20 to 40 psi). In western states, apply anytime after woody plants are dormant and most of the foliage has dropped. In other areas apply anytime within 10 weeks of budbreak, generally February through April. Turflon Ester Ultra may be mixed with 4 quarts of Weedone 170 herbicide to improve the control of black cherry and broaden the spectrum of herbicidal activity. Do not apply to wet or saturated bark as poor control may result.

#### **Low Volume Applications**

Mix Turflon Ester Ultra at 4 to 6 gallons and 2 to 3 gallons of crop oil concentrate or other recommended oil and add this mixture to enough water to make 100 gallons of spray solution. Use continuous adequate agitation. Apply with backpack or other low volume spraying equipment, using low pressure (20 to 40 psi). This product may be mixed with other herbicides to broaden the spectrum of herbicidal activity. Do not apply to wet or saturated bark as poor control may result.

#### **Cut Surface**

Cut surface applications with Turflon Ester Ultra can be made anytime after cutting up to re-sprouting. After re-sprouting basal bark or foliar applications are more suitable.

#### **Basal Cut Stump Treatment**

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

#### **Cut Stump Treatment**

To control resprouting of difficult to control species like saltcedar and other *Tamarix* species, bigleaf maple, tanoak, Oregon myrtle, and other susceptible species, apply undiluted Turflon Ester Ultra to wet

the cambium and adjacent wood around the entire circumference of the cut stump. Treatments may be applied throughout the year; however, control may be reduced with treatment during periods of moisture stress as in late summer or early spring sap flow. Cut stumps so that they are approximately level to facilitate uniform coverage of Turflon Ester Ultra. Use an applicator that can be calibrated to deliver the small amounts of material required.

## **Rangeland and Permanent Grass Pastures**

All application methods described on this label may be used on rangeland and pasture sites, including the use of fixed wing aerial applications.

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

#### **Broadcast Application With Aerial or Ground Equipment**

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

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

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

## **Mesquite Only**

Apply 1/2 to 1 pint of Turflon Ester Ultra per acre in combination with Sendero. Refer to the label for Sendero for additional treatment recommendations and information on mesquite control. Apply aerially as an oil-water emulsion in 4 gallons or more total volume per acre or with ground equipment in 10 gallons or more total volume per acre. Use a maximum of 1 gallon of oil per acre for aerial or ground application.

#### **Mesquite and Pricklypear Cactus**

If pricklypear cactus is a target species in association with mesquite, apply a tank mix of 1/2 to 1 pint per acre of Turflon Ester Ultra with Tordon 22K. Sendero may also be applied in combination with Turflon Ester Ultra to control pricklypear while providing improved control of mesquite. Refer to the labels for Tordon 22K and Sendero for additional information and treatment recommendations. Apply aerially as an oil-water emulsion in 4 gallons or more total volume per acre or with ground equipment in 10 gallons or more total volume per acre. If mesquite canopy is dense, use higher spray volumes. Use a maximum of 1 gallon of oil per acre for aerial or ground application.

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

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

#### Sand Shinnery Oak Suppression

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

#### Post Oak and Blackjack Oak Suppression - Regrowth Stands

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

**High Volume Foliage Treatment:** For regrowth less than 4 ft tall, apply 2 quarts of Turflon Ester Ultra per 100 gallons of water and 2 quarts of ag surfactant alone or in tank mix combination with GrazonNext HL or Tordon 22K. Apply as a high volume leaf-stem treatment to individual plants using ground equipment.

#### Post Oak and Blackjack Oak - Mature Stands

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

#### **Other Susceptible Woody Plants**

Apply 2 to 4 pints of Turflon Ester Ultra alone or in combination with 2,4-D low volatile ester or amine formulation per acre. If difficult to control species such as ash, choke cherry, elm, maple or oaks are prevalent, and during applications made when plants are mature late in the summer or during drought conditions, use the higher rates of Turflon Ester Ultra, alone or with 2,4-D. Turflon Ester Ultra may also

be applied in a tank mixture with GrazonNext HL or Tordon 22K for increased control of certain species. Refer to the labels for GrazonNext HL and Tordon 22K for additional information and treatment recommendations. Apply aerially in 4 gallons or more total volume per acre or with ground equipment in 10 gallons or more total volume per acre. For best results on blackberry, apply during or after bloom. For management of kudzu, apply 1 quart of Turflon Ester Ultra per acre. Repeat application may be necessary to achieve desired level of control.

#### Susceptible Broadleaf Weeds

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

#### **Basal Bark and Dormant Stem Treatments**

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

#### Low Volume Basal Bark Treatment

To control susceptible woody plants such as mesquite, huisache, red maple, red and white oak, birches, and aspen with stems less than 6 inches in basal diameter, see directions within section Basal Bark, Dormant Stem, and Cut Surface Treatments.

#### **Streamline Basal Bark Treatment**

To control or suppress susceptible woody plants such as mesquite, huisache, red maple, white and red oak, elbowbush, greenbriar, hackberry, pricklyash, yaupon, and wild grape, see the Use Directions for Basal Bark applications.

#### Cut Stump, Basal Cut Stump, Dormant Stem, Thinline Basal Bark Treatments

To control resprouting, apply undiluted Turflon Ester Ultra to wet the cambium and adjacent wood around the entire circumference of cut stumps. Treatments may be applied throughout the year; however, control may be reduced with treatment during periods of moisture stress as in late summer. Cut stumps so that they are approximately level to facilitate uniform coverage. Use an applicator which can be calibrated to deliver the small amounts of material required.

#### **Growing Point and Leaf Base (Crown) Treatment of Yucca**

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

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