

# Treevix®

## Powered by **Kixor®** Herbicide

For use as a postemergence-directed broadleaf herbicide in the following bearing and nonbearing crops: caneberry, citrus fruit trees, fig trees, nut trees, olive trees, pomegranate trees, and pome fruit trees

#### **Active Ingredient:**

satlutenacil: N'-[2-chloro-4-tluoro-5-(3-methyl-2,6-dioxo-4-(tritluoromethyl)-3,	
6-dihydro-1(2H)-pyrimidinyl)benzoyl]-N-isopropyl-N-methylsulfamide	70.0%
Other Ingredients:	30.0%
Total:	100.0%
Contains 0.7 lb active ingredient saflufenacil per pound of product formulated as a water-dispersible gran	ule (WG)

EPA Reg. No. 7969-276

**EPA Est. No.** 

## KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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

See full label for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

#### **Net Contents:**

BASF Agricultural Solutions US LLC 2 TW Alexander Drive Research Triangle Park, NC 27713

FIRST AID		
If on skin	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>	
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes; then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>	
	HOTLINE NUMBER	

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Agricultural Solutions US LLC (hereafter "BASF") for emergency medical treatment information at 1-800-832-HELP (4357).

#### **Precautionary Statements**

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

CAUTION. Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

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

#### Applicators and other handlers must wear:

- Protective eyewear such as face shield, goggles, or safety glasses
- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of 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

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them.

#### **Engineering Controls**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-e)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for applicators and other handlers and have such PPE immediately available for

use in an emergency, such as a spill or equipment breakdown.

#### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- Wash hands 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
- 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**

For terrestrial uses, **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwater or rinsate.

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

Surface Water Advisory. Saflufenacil may impact surface water due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks after application. A level, well-maintained buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this chemical from runoff water and sediment. Runoff of this product will be reduced by

avoiding application when rainfall is forecast to occur within 48 hours.

## **Endangered Species Protection Requirements**

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult http://www.epa.gov/espp/, or call 1-844-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

#### **Directions For Use**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at time of herbicide application.

**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.

Observe all precautions and limitations in this label and the labels of products used in combination with **Treevix® powered by Kixor® herbicide**, (henceforth in this label referred to as **Treevix** or **Treevix herbicide**). The use of **Treevix** not consistent with this label can result in injury to crops, animals or persons. Keep containers closed to avoid spills and contamination.

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed.

BASF does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application in crops.

#### 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.

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#### **AGRICULTURAL USE REQUIREMENTS**

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

**Exception:** If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 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
- Protective eyewear

#### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

#### **Pesticide Storage**

Store in original container only, in cool, dry, and well-ventilated area, separately from fertilizer, feed, or foodstuffs and away from other pesticides. **DO NOT** store this product under wet conditions. Avoid cross-contamination with other pesticides.

#### **Pesticide Disposal**

Wastes resulting from this product must be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **Container Handling**

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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#### STORAGE AND DISPOSAL (continued)

**Container Handling** (continued)

Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. 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 mix tank. 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.

#### In Case of Emergency

In case of large-scale spill of this product, call:

• CHEMTREC 1-800-424-9300

• BASF 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF 1-800-832-HELP (4357)

#### Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

#### **Product Information**

Treevix® herbicide provides contact burndown broadleaf weed control (refer to Table 1 for weeds controlled).

Treevix does not control grass weeds and must be used sequentially or tank mixed with a grass herbicide for a complete weed control program. Refer to Crop-specific Information section for recommendations on herbicide tank mixtures or sequential programs.

Make burndown applications of **Treevix** when broadleaf weeds are small and actively growing. Burndown activity may be reduced on weeds previously mowed or cut. An adjuvant is required with **Treevix** for optimum burndown activity (refer to **Additives** section for details). Burndown activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions, or when weeds are growing under drought or other stress conditions. When targeting dense weed populations and/or larger broadleaf weeds, use higher spray volumes. Angling nozzles forward (to 45 degrees) may improve penetration of denser weed canopies.

**Treevix** is rainfast 1 hour after application. Burndown activity may be reduced if rain or irrigation occurs within 1 hour of application.

Table 1. Broadleaf Weeds Controlled by a Burndown Application of Treevix® herbicide

Common Name	Scientific Name	C = Control S = Suppression	Maximum Height or Diameter (inches)
Amaranth, Palmer	Amaranthus palmeri	С	6
Bedstraw, catchweed	Galium aparine	C	3
Beggarticks, hairy	Bidens pilosa	C	6
Beggarweed, Florida	Desmodium tortuosum	C	6
Bindweed, field	Convolvulus arvensis	S <sup>1</sup>	6
Buckwheat, wild	Polygonum convolvulus	C	6
Canola, volunteer (rapeseed)	Brassica spp.	C	6
Carpetweed	Mollugo verticillata	С	6
Cocklebur, common	Xanthium strumarium	C	6
Cowcockle	Vaccaria pyramidata	C	4
Dandelion	Taraxacum officinale	S <sup>1</sup>	6
Eveningprimrose, cutleaf	Oenothera laciniata	S	4
Falseflax, smallseed	Camelina microcarpa	C	4
Filaree, redstem	Erodium cicutarium	S	3
Fleabane, hairy	Conyza bonariensis	S	4 rosette
Flixweed	Descurainia sophia	C	6
Groundcherry, cutleaf	Physalis angulata	C	6
Groundsel, common	Senecio vulgaris	S	4
Horseweed (marestail)	Conyza canadensis	C	4
Kochia	Kochia scoparia	С	1 to 3 Suppression of button/puffball stage at < 1-inch tall
Ladysthumb	Polygonum persicaria	С	6
Lambsquarters, common	Chenopodium album	С	6
Lambsquarters, narrowleaf	Chenopodium pratericola	С	6
Lettuce, prickly	Lactuca serriola	С	6 rosette
Mallow, common	Malva neglecta	С	6
Mallow, little <sup>3</sup> (cheeseweed)	Malva parviflora	С	3
Mallow, Venice	Hibiscus trionum	С	6
Marestail (horseweed)	Conyza canadensis	С	4
Morningglory, entireleaf	lpomoea hederacea var. integriuscula	С	6
Morningglory, ivyleaf	Ipomoea hederacea	С	6
Morningglory, palmleaf	Ipomoea wrightii	С	6
Morningglory, pitted	Ipomoea lacunosa	С	6
Morningglory, tall	lpomoea purpurea	С	6
Mustard, black	Brassica nigra	С	6 rosette
Mustard, tumble	Sisymbrium altissimum	С	6 rosette
Mustard, wild	Sinapis arvensis	С	6 rosette
Needles, Spanish*	Bidens pilosa	С	6
Nettle, burning	Urtica urens	С	4

(continued)

Table 1. Broadleaf Weeds Controlled by a Burndown Application of Treevix® herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression	Maximum Height or Diameter (inches)
Nightshade, black	Solanum nigrum	С	6
Nightshade, cutleaf	Solanum triflorum	С	6
Nightshade, Eastern black	Solanum ptycanthum	С	6
Nightshade, hairy	Solanum saccharoides	С	6
Parthenium	Parthenium hysterophorus L.	С	6
Pennycress, field	Thlaspi arvense	С	6
Pigweed, prostrate	Amaranthus blitoides	С	6
Pigweed, redroot	Amaranthus retroflexus	С	6
Pigweed, smooth	Amaranthus hybridus	С	6
Puncturevine	Tribulus terrestris	С	6
Purslane, common	Portulaca oleracea	С	3
Pusley, Florida	Richardia scabra	S	3
Ragweed, common <sup>2</sup>	Ambrosia artemisiifolia	С	6
Ragweed, giant	Ambrosia trifida	С	6
Shepherd's-purse	Capsella bursa-pastoris	С	6
Sida, prickly	Sida spinosa	С	6
Smartweed, Pennsylvania	Polygonum pensylvanicum	С	6
Sowthistle, annual	Sonchus oleraceus	С	6 rosette
Sowthistle, spiny	Sonchus asper	С	6 rosette
Sunflower, common	Helianthus annuus	С	6
Tansymustard, green*	Descurainia incana	С	6
Tansymustard, pinnate	Descurainia pinnata	С	6
Thistle, Canada	Cirsium arvense	S <sup>1</sup>	6
Thistle, Russian	Salsola kali	С	3
Velvetleaf	Abutilon theophrasti	С	6
Waterhemp <sup>2</sup>	Amaranthus tuberculatus	С	6
Willowweed	Epilobium adenocaulon	С	3

<sup>&</sup>lt;sup>1</sup> Control of seedling stage and suppression of perennial growth stage.

Table 2. Additional Broadleaf Weeds Controlled by a Burndown Application of Treevix in Tank Mix with Other Herbicides<sup>1</sup>

Common Name	Scientific Name	C = Control	Maximum Height or Diameter (inches)
Filaree, redstem	Erodium cicutarium	С	3
Fleabane, hairy	Conyza bonariensis	С	4 rosette
Groundsel, common	Senecio vulgaris	С	4

<sup>&</sup>lt;sup>1</sup> To achieve control of these weeds, the tank mix of **Treevix** and glyphosate or glufosinate is required. Refer to glyphosate or glufosinate labels for specific use rates.

<sup>&</sup>lt;sup>2</sup> Populations of noted weeds exist that are known to be resistant to burndown applications of **Group 14/Group E** herbicides and will not be controlled by herbicides like **Treevix**. See the **Resistance Management** section for practices to manage and minimize the impact of resistant weeds (e.g. tank mixes or alternation with other herbicide modes of action, crop rotation and mechanical control).

<sup>&</sup>lt;sup>3</sup> Burndown activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions.

<sup>\*</sup> Not controlled in California.

#### **Mode of Action**

**Treevix®** herbicide is a potent inhibitor of protoporphyrinogen-oxidase belonging to herbicide mode of action **Group 14**. **Treevix** is rapidly absorbed by roots and foliage. Following inhibition of protoporphyrinogen-oxidase, plant death is the result of membrane damage. Under active growing conditions, susceptible emerged weeds usually develop chlorotic and necrotic injury symptoms within hours and die within a few days.

#### **Herbicide Resistance Management**

While weed resistance to **Group 14** herbicides are relatively infrequent, populations of resistant biotypes are known to exist. The frequency of resistant biotypes may increase if **Group 14** herbicides are used repeatedly in the same field or in successive years as the primary control of the targeted species. If resistant biotypes dominate the weed population, it may result in partial or total loss of control by other **Group 14** herbicides. Weeds resistant to **Group 14** herbicides may be effectively managed using herbicide(s) from a different group.

To aid in the prevention of developing resistant weeds, the following herbicide resistance management principles should be followed where practical:

- Resistance management should be part of a diversified weed control strategy that integrates chemical, cultural, and mechanical (tillage) control tactics. Cultural control tactics include crop rotation, proper fertilizer placement, and optimum seeding rate/row spacing. Start with clean fields using tillage or an effective burndown herbicide program. These practices encourage crop growth and improve competitiveness against weeds.
- Clean equipment before moving to a different field to avoid spread of resistant weeds.
- Scout fields before application to ensure herbicides and rates will be appropriate for the weeds species and weed sizes present.
- Always follow labeled application rate and weed growth stage specifications.
- Use sequential programs with preemergence herbicides that provide soil residual control of weeds to reduce early season weed competition and allow for timely in-crop postemergence herbicide applications.
- DO NOT rely on a single herbicide site of action for weed control during the growing season.
- Avoid application of herbicides with the same site of action more than twice a season.
- Use tank mixes or premixes with other herbicides possessing different sites of action that are also effective on the target weeds.
- Scout fields after herbicide application to identify areas where weed control was ineffective.
- Control weed escapes with herbicides possessing a different site of action or use a mechanical control

- measure. Weed escapes should not be allowed to reproduce by seed or to proliferate vegetatively.
- Contact your Treevix supplier and/or your local BASF representative to report weed escapes.
- Consult your local BASF representative, local or state cooperative extension service, professional consultants or crop advisors, or other qualified authority to determine appropriate actions if you suspect resistant weeds.
- Suspected herbicide-resistance weeds may be identified by these indicators:
  - failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - a spreading patch on non-controlled plants of a particular weed species; and
  - surviving plants mixed with controlled individuals of the same species.

#### **Crop Tolerance**

Caneberry, citrus fruit trees, fig trees, nut trees, olive trees, pomegranate trees, and pome fruit trees are tolerant to **Treevix** applied according to label directions as a postemergence-directed treatment and under normal environmental conditions. Crop injury may occur under stressful growing conditions (e.g. seedling disease, extreme hot or cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought).

Severe crop injury will result if **Treevix** is applied postemergence (over the top) to any tree or vine crop.

#### **Application Instructions**

**Treevix** must be applied as a postemergence-directed spray application either as a uniform broadcast, banded, or spot application to emerged broadleaf weeds.

#### **Application Methods and Equipment**

**Treevix** can **ONLY** be applied using ground equipment. Good spray coverage is important for optimum broadleaf weed control and can be improved with proper adjuvant, nozzle, and spray volume selection.

Use and configure application equipment to provide an adequate spray volume, an accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to nontarget areas. Equipment should be adjusted to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above the use rates specified in this label. **DO NOT** apply broadcast or banded using high pressure hand wands.

#### **Ground Application Requirements**

**Water Volume.** As a water-dispersible granule formulation, **Treevix** must **ONLY** be applied using water as the spray carrier. Use 10 or more gallons of water per acre. Increased efficacy has been observed at water volumes of 20 to 40 gallons per acre. Thorough spray coverage is required for control of emerged broadleaf weeds. High

populations and/or variations in size can prevent adequate spray coverage. Controlling fall-germinated weeds in the spring (e.g. horseweed/marestail) will also require thorough spray coverage. Use higher spray volumes (e.g. 15 to 20 gallons of water per acre) in these situations to increase spray coverage and optimize burndown activity.

The following measures must be followed to reduce the potential of spray drift to nontarget areas from ground applications:

- 1. Apply this product using nozzles which deliver medium-to-coarse spray droplets as defined by ASAE standard S-572 and as shown in nozzle manufacturer's catalogs. Flat-fan nozzles are recommended for burndown applications. Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of target (i.e. weeds). DO NOT use nozzles that produce fine (e.g. cone) spray droplets. Nozzles must be affixed to spray no higher than 20 inches above spray target (e.g. top of weed foliage).
- Apply this product only when the potential for drift to adjacent nontarget areas is minimal (e.g. when the wind is 10 MPH or less and is blowing away from sensitive areas). DO NOT apply during periods of temperature inversions or stable atmospheric conditions.
- 3. Avoid potential adverse effects to nontarget areas by maintaining a 33-foot buffer (50-foot buffer in California) between the application area and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, and crop lands).

#### **Cleaning Spray Equipment**

Before applying **Treevix®** herbicide, all application equipment must be thoroughly cleaned. All spray equipment, hoses, and nozzles must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply **Treevix**.

Spray equipment used to apply **Treevix** should not be used to apply other materials to any crop unless the proper cleanout procedures are followed. Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions, followed by triple rinsing the equipment after applying this product.

#### **Spray Drift Management**

It is the responsibility of the applicator to avoid spray drift at the application site, especially onto nontarget areas. The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The applicator should be familiar with and take into account the information covered in the following spray drift reduction advisory information.

**Controlling Droplet Size.** The most effective way to reduce drift potential is to apply the largest droplets that provide sufficient coverage and control.

**Volume.** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure. DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of Nozzles.** Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Type.** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets.

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

**Wind.** Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. If applying at wind speeds less than 3 mph, the applicator must determine if:

- 1. Conditions of temperature inversion exist, or
- 2. Stable atmospheric conditions exist at or below nozzle height.

**DO NOT** make applications into areas of temperature inversions or stable atmospheric conditions.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Wind Erosion.** Avoid treating powdery, dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

#### **Additives**

For optimum burndown activity with **Treevix® herbicide**, an adjuvant system must be used that includes the following:

Adjuvant	Rate
Methylated seed oil (MSO) <sup>1</sup>	1 gal/100 gals (1% v/v) <sup>2</sup>
PLUS	PLUS
Ammonium sulfate (AMS)	8.5 to 17 lbs/100 gals (1% to 2% w/v)
or	or
Urea ammonium nitrate (UAN)	1.25 to 2.5 gals/100 gals (1.25% to 2.5% v/v)

<sup>&</sup>lt;sup>1</sup> MSO-based adjuvant **MUST** contain at least 60% methylated seed oil. Poor performance may occur with adjuvants containing less than 60% methylated seed oil.

The use of AMS fertilizer is highly recommended when mixing **Treevix** with glyphosate-based herbicides.

**DO NOT** use a nonionic surfactant (NIS) as a substitute for MSO, or poor performance on broadleaf weeds will occur.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

#### **Tank Mixing Information**

Treevix may be tank mixed with one or more registered herbicide products according to the specific tank mixing instructions in this label and respective product labels. Refer to Crop-specific Information section for tank mixing details. For all tank mixing with Treevix, it is the pesticide user's responsibility to ensure that all products in the listed mixtures 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.

Tank mixtures with contact herbicides (e.g. carfentrazone, paraquat) may reduce the burndown activity of **Treevix**.

#### **Compatibility Test for Mix Components**

Before mixing components, always perform a compatibility jar test.

- For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- 2. Add components in the sequence indicated in the following mixing order instructions using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- 3. Always cap the jar and invert 10 cycles between component additions.

- 4. When the components have all been added to the jar, let the solution stand for 15 minutes.
- 5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, or fine particles that precipitate to the bottom, or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

#### **Mixing Order**

Maintain agitation throughout mixing and application until spraying is completed.

- 1. **Water** Fill tank 1/2 to 3/4 full of clean water and start agitation.
- 2. **Inductor** If an inductor is used, rinse it thoroughly after each component has been added.
- Products in PVA bags Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4. **Water-soluble additives** (including dry and liquid fertilizers such as ammonium sulfate or urea ammonium nitrate)
- Water-dispersible products (such as dry flowables, wettable powders, suspension concentrates or suspo-emulsions)
- 6. Water-soluble products
- Emulsifiable concentrates (including methylated seed oil adjuvants)
- 8. Remaining quantity of water

Maintain agitation throughout mixing and application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

#### **Use Restrictions**

- Maximum seasonal use rate Refer to Cropspecific Information sections for maximum cropping seasonal application use rates per crop. A cropping season is defined as the period following harvest of the preceding crop through the harvest of the planned or current crop.
- DO NOT apply Treevix by air.
- DO NOT contaminate irrigation ditches or water used for domestic purposes.
- **DO NOT** apply **Treevix** through any type of irrigation system (e.g. chemigation).
- Treevix is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.

<sup>&</sup>lt;sup>2</sup> **DO NOT** use less than 1 pint/A of MSO with low volume (< 12.5 gallons per acre) ground applications.

## Crop Rotation and Emergency Replanting Intervals

If any labeled crop treated with **Treevix®** herbicide is lost to adverse weather or for other reasons, the area treated may be replanted to citrus fruit trees 1 month after treatment and to caneberry, fig trees, nut trees, olive trees, pomegranate trees, pome fruit trees, and stone fruit trees 3 months after treatment. Corn and small grains may be planted immediately after crop removal. Wait 9 months before planting any other crop. Be sure to determine the rotational crop interval for tank mix products and follow the most restrictive interval of all products applied.

#### **Crop-specific Information**

This section provides use directions for **Treevix** in specific crops. Be sure to read product information, mixing, application, weeds controlled, and adjuvant instructions in preceding sections of the label. Read and follow tank mix product labels for restrictions, precautions, instructions, and rotational crop restrictions.

Thorough spray coverage is required for control of emerged broadleaf weeds. High populations and/or variations in size can prevent adequate spray coverage. Controlling fall-germinated weeds in the spring (e.g. horseweed/marestail) will also require thorough spray coverage. Use higher spray volumes (e.g. 15 to 20 gallons of water per acre) in these situations to increase spray coverage and optimize burndown activity.

## Bearing and Nonbearing Caneberry

Not registered for use by California.

**Treevix** may be applied to caneberry: blackberry and raspberry (black, red, wild); cultivars, varieties, and/or hybrids of these.

Apply **Treevix** at 1.0 oz/A plus the recommended adjuvants (refer to **Additives** section for details) as a postemergence-directed spray application either as a uniform broadcast or banded, directed at the base of the canes (but off the beds) while targeting emerged broadleaf weeds. Spray contact of canes (primocanes or floricanes), foliage, flowers, buds, or fruit directly via improper nozzle orientation or indirectly via physical drift will result in crop injury. The use of shielded sprayers is highly recommended when applying in caneberry.

Applications can be made to newly planted or replacement bushes, but caneberry beds must be established for at least 9 months before application.

**Treevix** may be applied in a single application during the dormant period (postharvest through winter dormancy).

#### **Crop-specific Restrictions**

- DO NOT apply more than 1.0 oz/A of Treevix (0.044 lb ai/A of saflufenacil) in caneberry in a single application.
- DO NOT apply more than a maximum cumulative amount of 1.0 oz/A of Treevix (0.044 lb ai/A of saflufenacil) per cropping season or on an annual basis.
- Treevix may be applied any time up to or on the day of caneberry fruit harvest.
- DO NOT use in caneberry nurseries.

#### **Tank Mixes**

**Treevix** may be tank mixed or applied sequentially with other herbicide products registered for use in caneberry for additional burndown and/or broad-spectrum postemergence control of additional annual and perennial weeds. Refer to the tank mix product labels to confirm that the respective tank mix products are registered for use on caneberry.

### Bearing and Nonbearing Fruit and Nut Trees

**Treevix** may be applied in the following individual bearing or nonbearing crops within the fruit tree and tree nut crop groupings:

Citrus Fruits			
Citrus citron	Mandarin (satsuma)		
Clementine Orange (sweet)			
Grapefruit	Pummelo		
Lemon Tangelo			
Lime	Tangerine		
Pome Fruits			
Apple Pear			
Tree Nuts			
Almond	Pistachio		
Filbert (hazelnut)* Walnut			
Other Fruit Trees			
Fig, Olive, Pomegranate			

<sup>\*</sup>Not for use in California.

#### Application Method, Rates, and Timings

Apply **Treevix** at 1.0 oz/A plus the recommended adjuvants (refer to **Additives** section for details) as a postemergence-directed spray application either as a uniform broadcast, or banded, or spot application directed at the base of the tree trunks while targeting emerged broadleaf weeds (refer to **Table 1** for weeds controlled). Spray contact of tree foliage, flowers, buds, or fruit either directly via improper nozzle orientation or indirectly via physical drift will result in crop injury. The use of shielded sprayers is highly recommended when applying in citrus and other trees with low hanging branches and fruit.

Applications can be made to newly planted or replacement citrus trees after irrigation or rainfall has settled the soil, while fig trees, nut trees, olive trees, pomegranate trees, and pome fruit trees must be established for at least 9 months before application. Trunk shields should be used until adequate bark has formed to protect trees from potential herbicide injury (typically by 2 to 3 years after establishment).

**Treevix® herbicide** may be applied either in a single application or sequentially up to 3 times per year. Sequential applications must be separated by at least 21 days.

**Additional Dormant Period Application in Tree Nuts** and Pome Fruit Trees. Treevix may be applied sequentially up to four (4) times per year only if one or two of the applications occur during the dormant period of postharvest through winter dormancy. Apply Treevix at 1.0 oz/A per application during the period of postharvest through winter dormancy. In-season **Treevix** applications may begin in the spring when trees are in the bud-swell stage. A maximum of three (3) in-season **Treevix** applications are permitted (i.e. when trees are in bud-swell to crop harvest). Sequential applications must be separated by at least 21 days regardless of the time of year. **DO NOT** apply **Treevix** more than four (4) times per cropping season (i.e. if two (2) applications are made in the postharvest to winter dormancy period, then a maximum of only two (2) applications can be made in-season).

Additional Dormant Period Application in Citrus, Fig. Olive, and Pomegranate Trees. Treevix may be applied sequentially up to four (4) times per year only if one or two of the applications occur during the period of postharvest to the beginning of bloom. Apply **Treevix** at 1.0 oz/A per application during the period of postharvest until trees begin to bloom. **Treevix** applications may only resume after citrus trees or fig trees or olive trees or pomegranate trees have begun the fruiting stage. A maximum of three (3) **Treevix** applications are permitted while trees are in the fruiting stage until crop harvest. Sequential applications must be separated by at least 21 days regardless of the time of year. **DO NOT** apply **Treevix** more than four (4) times per cropping season (i.e. if two (2) applications are made in the postharvest period, then a maximum of only two (2) applications can be made during fruiting stage until crop harvest).

**Spot Treatments.** Consult the chart following for the amount of **Treevix** for making various gallons of spray mix to be used for spot treatments applied to actively growing broadleaf weeds and sizes referenced in **Table 1**. Spray thoroughly to wet the weed foliage but not to point of runoff. To maximize performance, the recommended adjuvant and rate (refer to **Additives** section for details) must be added to the spray mix. Each spray mix is equivalent to applying **Treevix** at a use rate of 1.0 oz/A in a spray volume of 100 gallons per acre. Applications of a spot spray mix should not be made to an equivalent area less than what is shown in the chart or exceed the equivalent broadcast rate of 1.0 oz/A. Spot treatments may be applied via an ATV-mounted (all-terrain vehicle-mounted)

or tractor-mounted sprayer equipped for low-pressure hand wand applications. **DO NOT** apply spot treatments using high-pressure hand wands.

Gallons Spray Mix	Spray Mix Treatment Area (sq ft)	Treevix (OZ)	Treevix (grams)
5.0	2,178	0.050	1.4
10.0	4,356	0.100	2.8
25.0	10,890	0.250	7.1

#### **Crop-specific Restrictions**

- **DO NOT** apply more than 1.0 oz/A of **Treevix** (0.044 lb ai/A of saflufenacil) in a single application.
- DO NOT apply more than a maximum cumulative amount of 3.0 ozs/A of Treevix (0.134 lb ai/A of saflufenacil) per cropping season or more than a maximum cumulative amount of 4.0 ozs/A (0.176 lb ai/A of saflufenacil) per cropping season when using the Additional Dormant Period Applications. DO NOT apply more than a maximum cumulative amount of 4.0 ozs/A of Treevix (0.176 lb ai/A of saflufenacil) on an annual basis.
- Sequential applications must be separated by at least 21 days.
- Treevix may be applied any time up to or on the day of tree fruit harvest.
- Wait at least 7 days after application of **Treevix** before harvesting tree nuts.
- Wait at least 21 days after application of **Treevix** before harvesting fig.
- DO NOT use in tree nurseries.

#### **Tank Mixes**

Broad-spectrum postemergence control of additional annual and perennial weeds will usually require a tank mix with a herbicide such as glyphosate. **Treevix** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products for additional burndown or residual weed control:

- Poast® herbicide
- Prowl® H2O herbicide
- Rely® 200 herbicide
- glyphosate
- oxyfluorfen

#### **Conditions of Sale and Warranty**

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF Agricultural Solutions US LLC ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

**Kixor**, **Poast**, **Prowl**, **Rely**, and **Treevix** are registered trademarks of BASF.

#### **Tank Mix Partners**

Poast Herbicide (sethoxydim, EPA Reg. No. 7969-58) Prowl H2O Herbicide (pendimethalin, EPA Reg. No. 241-418) Rely 280 Herbicide (glufosinate, EPA Reg. No. 7969-448)

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007969-00276.20250508.**NVA 2025-04-0321-0104** 

Based on: NVA 2022-04-0321-0230 Supersedes: NVA 2020-04-321-0257

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