

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 8, 2021

Jamey Thomas Regulatory Leader – Regulatory Affairs Corteva Agriscience 9330 Zionsville Road Indianapolis, IN 46268

Subject: Label Amendment – Adding Crop Subgroup 4-16B and updating label Product Name: Transform WG EPA Registration Number: 62719-625 Application Date: December 11, 2019 Decision Number: 558894

Dear Mr. Thomas:

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.

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

Page 2 of 2 EPA Reg. No. 62719-625 Decision No. 558894

with FIFRA section 6. If you have any questions, please contact Joseph Belsky at belsky.joseph@epa.gov or at (703) 347-0157.

Sincerely,

Ala Narrel eus

Venus Eagle, Product Manager 01 Invertebrate and Vertebrate Branch 3 Registration Division (7505P) Office of Pesticide Programs

Enclosure

[Note to Reviewer: The notation of (Base Label) indicates the text that will be affixed on the container and will remain if the booklet is removed.] (Base label):

SULFOXAFLOR	GROUP	4C	INSECTICIDE
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# Transform<sup>®</sup> WG

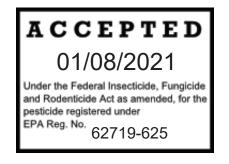
INSECTICIDE with Isoclast Active

For control or suppression of aphids, fleahoppers, plant bugs, stink bugs, whiteflies and certain psyllids, scales, and thrips on: alfalfa, artichoke (globe), asparagus, avocado, barley, Brassica head and stem vegetables (crop group 5-16), Brassica leafy greens (subgroup 4-16B), bulb vegetables (crop group 3-07), bushberry (subgroup 13-07B), cacao, caneberry (subgroup 13-07A), canola (rapeseed) (subgroup 20A), celtuce, citrus (crop group 10), corn (field, pop, sweet, grown for seed), cotton, cucurbit vegetables (crop group 9), Florence fennel, fruiting vegetables (crop group 8), leafy greens (subgroup 4-16A), leafy petiole vegetables (subgroup 22B), leaves of root and tuber vegetables (crop group 2), low growing berry (subgroup 13-07G) (except strawberry), millet, oats, okra, ornamentals (herbaceous and woody, in greenhouses and nurseries), pineapple, pome fruits (crop group 11), rice, root and tuber vegetables (subgroup 1A), root vegetables (except sugar beet) (subgroup 1B), rye, small fruit vine climbing (except fuzzy kiwifruit) (subgroup 13-07F), sorghum, soybean, stone fruits (crop group 12-12), strawberry, succulent, edible podded, and dry beans, sunflower (subgroup 20B), teff, teosinte, tree nuts (crop group 14-12), tree plantations, triticale, tuberous and corm vegetables (subgroup 1C), tuberous and corm vegetables (except potato)(subgroup 1D), turfgrass, and wheat.

Active Ingredient:	
sulfoxaflor	50%
Other Ingredients	50%
Total	100%

Contains 50% active ingredient on a weight basis.

# Keep Out of Reach of Children DANGER PELIGRO



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

# First Aid

**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 by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

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.

## **Precautionary Statements**

#### Hazard to Humans and Domestic Animals

Corrosive. Causes Irreversible Eye Damage • Harmful If Swallowed

Do not get in eyes or on clothing.

#### Personal Protective Equipment (PPE) Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Cong-sleeved shint and long
- Shoes plus socks
- Protective eyewear

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

## **User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/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.

## **Environmental Hazards**

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

This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms.

The  $RT_{25}$  for this product is less than or equal to 3 hours. The  $RT_{25}$  (Residual Time to 25% mortality; the length of time over which field weathered foliar residues remain toxic to honey bees) for this product is  $\leq$  3 hours.

## **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to the 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 or disposal.

Pesticide Storage: Store in original container only.

**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.

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. 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. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing

nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### (Storage and Disposal for nonrigid containers any size)

#### Storage and Disposal

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

Pesticide Storage: Store in original container only.

**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. Completely empty bag into application equipment. Then offer for recycling if available, or dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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

## Storage and Disposal

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

Pesticide Storage: Store in original container only.

**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 and, if possible, spray all sides while adding water. If practical, 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. Then 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.

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

## Storage and Disposal

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

Pesticide Storage: Store in original container only.

**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.

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. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a 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. Then 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.

#### Refer to label booklet for 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.

EPA Reg. No. 62719-625

EPA Est. \_\_\_\_\_



Scan this code with a smart phone QR reader to access key information about this product at mobile.dowagro.com/transform. You will have access to the product label, application rates, product efficacy results, and more, all from your smart phone!

To download and install a mobile QR code reader, visit www.i-nigma.mobi on your mobile device.

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Produced for Corteva Agriscience LLC 9330 Zionsville Road Indianapolis, IN 46268

NET WEIGHT \_\_\_\_\_ Lot Number \_\_\_\_\_ [Note to Reviewer: The notation of (Cover, shipping container) indicates the text that will appear on the cover of the booklet and shipping containter.] (Cover, shipping container):

SULFOXAFLOR	GROUP	4C	INSECTICIDE
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# Transform<sup>®</sup> WG

INSECTICIDE with Isoclast Active

For control or suppression of aphids, fleahoppers, plant bugs, stink bugs, whiteflies and certain psyllids, scales, and thrips on: alfalfa, artichoke (globe), asparagus, avocado, barley, Brassica head and stem vegetables (crop group 5-16), Brassica leafy greens (subgroup 4-16B), bulb vegetables (crop group 3-07), bushberry (subgroup 13-07B), cacao, caneberry (subgroup 13-07A), canola (rapeseed) (subgroup 20A), celtuce, citrus (crop group 10), corn (field, pop, sweet, grown for seed), cotton, cucurbit vegetables (crop group 9), Florence fennel, fruiting vegetables (crop group 8), leafy greens (subgroup 4-16A), leafy petiole vegetables (subgroup 22B), leaves of root and tuber vegetables (crop group 2), low growing berry (subgroup 13-07G) (except strawberry), millet, oats, okra, ornamentals (herbaceous and woody, in greenhouses and rice, root and tuber vegetables (subgroup 1A), root vegetables (except sugar beet) (subgroup 1B), rve. small fruit vine climbing (except fuzzy kiwifruit) (subgroup 13-07F), sorghum, soybean, stone fruits (crop group 12-12), strawberry, succulent, edible podded, and dry beans, sunflower (subgroup 22B), teff, teosinte, tree nuts (crop group 14-12), tree plantations, triticale, tuberous and corm vegetables (subgroup 1C), tuberous and corm vegetables (except potato) (subgroup 1D), turfgrass, and wheat.

Active Ingredient:

sulfoxaflor	50%
Other Ingredients	50%
Total	

Contains 50% active ingredient on a weight basis.

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NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

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

Refer to inside of label booklet for additional precautionary 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.

EPA Reg. No. 62719-625

EPA Est.



Scan this code with a smart phone QR reader to access key information about this product at mobile.dowagro.com/transform. You will have access to the product label, application rates, product efficacy results, and more, all from your smart phone!

To download and install a mobile QR code reader, visit www.i-nigma.mobi on your mobile device.

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<b>NET WEIGHT</b>	-
Lot Number	

(Page 1 through end):

Table of Contents F	Page
First Aid	-
Precautionary Statements	-
Hazard to Humans and Domestic Animals	-
Personal Protective Equipment (PPE)	-
User Safety Recommendations	-
Environmental Hazards	-
Directions for Use	
Agricultural Use Requirements	-
Storage and Disposal	-
Product Information	-
Use Precautions	-
Mixing Directions	-
Application Directions	-
Rotational Crop Restrictions	-
Uses	-
Alfalfa	-
Artichoke (globe)	-
Asparagus	-
Avocado	-
Barley, Oats, Rye, Teff, Triticale and Wheat	-
Brassica Head and Stem Vegetables (Crop Group 5-16)	-
Bushberry (Subgroup 13-07B)	-
Bulb Vegetables (Crop Group 3-07)	-
Cacao	-
Caneberry (Subgroup 13-07A)	-
Canola (Rapeseed) (Subgroup 20A)	-
Citrus (Crop Group 10)	-
Cotton	-
Corn (Field, Pop, Sweet, Grown for Seed), Millet, Sorghum, Teosinte	-
Cucurbit Vegetables (Crop Group 9)	-
Fruiting Vegetables (Crop Group 8) and Okra	-
Leafy Greens (Subgroup 4-16A), Brassica Leafy Greens (Subgroup 4-16B), Leafy Petiole	-
Vegetables (Subgroup 22B), Celtuce, and Florence Fennel	
Leaves of Root and Tuber Vegetables (Crop Group 2)	-
Ornamentals (Herbaceous and Woody) Growing in Greenhouses, and Nurseries	-
Pineapple	-
Pome Fruits (Crop Group 11)	-
Rice	-
-	
Root and Tuber Vegetables (subgroup 1A) and Root Vegetables (except sugar beet)	-
(subgroup 1B)	
Small Fruit Vine Climbing (Except Fuzzy Kiwifruit) (Subgroup 13-07F) and	-
Low Growing Berry (Subgroup 13-07G) (except strawberry)	
Soybean	-
Stone Fruits (Crop Group 12-12)	-
Strawberry	-
Succulent, Edible Podded, and Dry Beans	-
Sunflower (Subgroup 20B)	-
Tree Nuts (Crop Group 14-12)	-
Tree Plantations	-
Tuberous and Corm Vegetables (subgroup 1C) and Tuberous and Corm Vegetables	-
(except potato) (subgroup 1D)	
- <i>,</i>	
Turfgrass	-

Terms and Conditions of Use Warranty Disclaimer Inherent Risks of Use Limitation of Remedies

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# Precautionary Statements Hazard to Humans and Domestic Animals DANGER

Corrosive. Causes Irreversible Eye Damage • Harmful If Swallowed

Do not get in eyes or on clothing.

# Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Protective eyewear

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

## **User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/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.

## **Environmental Hazards**

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

This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms.

The RT<sub>25</sub> (Residual Time to 25% mortality; the length of time over which field weathered foliar residues remain toxic to honey bees) for this product is  $\leq$  3 hours.

# **Directions for Use**

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

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

## **Agricultural Use Requirements**

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 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

Shoes plus socks

## **Storage and Disposal**

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

Pesticide Storage: Store in original container only.

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

#### Nonrefillable rigid containers 5 gallons or less:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

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. 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. 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 up up to dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Nonrefillable nonrigid containers:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Refillable rigid containers larger than 5 gal:

**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 and, if possible, spray all sides while adding water. If practical, 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. Then 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.

#### Nonrefillable rigid containers larger than 5 gal:

Container Handling: Nonrefillable container. Do not reuse or refill this container.

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. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a 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. Then 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.

# **Product Information**

Carefully read, understand and follow label use rates and restrictions. Apply the amount specified in the following tables with properly calibrated aerial or ground spray equipment. Prepare only the amount of spray solution

Page 11

required to treat the measured acreage. The low rates may be used for light infestations of the target pests and the higher rates for moderate to heavy infestations. Transform<sup>®</sup> WG insecticide may be applied in either dilute or concentrate sprays so long as the application equipment is calibrated and adjusted to deliver thorough, uniform coverage. Use the specified amount of Transform WG per acre regardless of the spray volume used.

# **Use Precautions**

#### Integrated Pest Management (IPM) Programs

Transform WG is recommended for IPM programs in labeled crops. Apply Transform WG when field scouting indicates target pest densities have reached the economic threshold, i.e., the point at which the insect population must be reduced to avoid economic losses beyond the cost of control. Other than reducing the target pest species as a food source, Transform WG does not have a significant impact on most parasitic insects or the natural predaceous arthropod complex in treated crops, including big-eyed bugs, ladybird beetles, flower bugs, lacewings, minute pirate bugs, damsel bugs, assassin bugs, predatory mites or spiders. The feeding activities of these beneficials will aid in natural control of other insects and reduce the likelihood of secondary pest outbreaks. If Transform WG is tank mixed with any insecticide that reduces its selectivity in preserving beneficial predatory insects, the full benefit of Transform WG in an IPM program may be reduced.

#### **Resistance Management Recommendations:**

Transform WG contains a Group 4C insecticide.

To delay development of insecticide resistance, the following practices are recommended:

- Adopt an integrated pest management program, for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest conrol advisor.
- •
- Contact your local extension specialist, certified crop advisors for any additional presticide resistancemanagement and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, you may contact your company representative by calling 800-258-3033.

# Mixing Directions

#### Application Rate Reference Table

Application Rate of Transform WG (oz/acre)	Active Ingredient Equivalent (Ib ai/acre)
0.75	0.023
1	0.031
1.5	0.047
1.75	0.055
2.25	0.071
2.75	0.086

#### Transform WG – Alone

Fill the spray tank with water to about 1/2 of the required spray volume. Start agitation and add the required amount of Transform WG. Continue agitation while mixing and filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source.

#### Transform WG - Tank Mix

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.

When tank mixing Transform WG with other materials, conduct compatibility test (jar test) using relative proportions of the tank mix ingredients prior to mixing ingredients in the spray tank. If foliar fertilizers are used, the jar test should be repeated with each batch of fertilizer utilizing the mixing water source. Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

**Mixing Order for Tank Mixes:** Fill the spray tank with water to 1/4 to 1/3 of the required spray volume. Start agitation. Add different formulation types in the order indicated below, allowing time for complete dispersion and mixing after addition of each product. Allow extra dispersion and mixing time for dry flowable products.

Add different formulation types in the following order:

- 1. Transform WG and other water dispersible granules
- 2. Wettable powders
- 3. Suspension concentrates and other liquids

Maintain agitation and fill spray tank to 3/4 of total spray volume. Then add:

- 4. Emulsifiable concentrates and water-based solutions
- 5. Spray adjuvants, surfactants and oils
- 6. Foliar fertilizers

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose.

**Premixing:** Dry and flowable formulations may be premixed with water (slurried) and added to the spray tank through a 20 to 35 mesh screen. This procedure assures good initial dispersion of these formulation types.

# **Application Directions**

Restrictions:

# Not for Residential Use

Do not apply Transform WG to edible plants/crops in greenhouses. Do not treat seedling plants grown for transplant in greenhouses, shade houses, or field plots.

Proper application techniques help ensure thorough spray coverage and correct dosage for optimum insect control. Apply Transform WG as a foliar spray at the rate indicated for target pest. The following directions are provided for ground and aerial application of Transform WG. Attention should be given to sprayer speed and calibration, wind speed, and foliar canopy to ensure adequate spray coverage.

#### **Spray Drift Management**

**Wind:** To reduce off-target drift and achieve maximum performance, apply when wind velocity favors on-target product deposition (approximately 3-10 mph). Do not apply when wind speed exceeds 10 mph as uneven spray coverage and drift may result.

**Temperature Inversions:** Do not make ground or aerial applications during a temperature inversion. Temperature inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

**Droplet Size:** Use only medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASABE (S-572.1) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size except where indicated for specific crops.

#### **Ground Application**

To prevent drift from groundboom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy. Shut off the sprayer when turning at row ends.

#### **Row Crop Application**

Use calibrated power-operated ground spray equipment capable of providing uniform coverage of the target crop. Orient the boom and nozzles to obtain uniform crop coverage. Use a minimum of 5 to 10 gallons per acre, increasing volume with crop size and/or pest pressure. Use hollow cone, twin jet flat fan nozzles or other atomizer suitable for insecticide spraying to provide a fine to coarse spray quality (per ASABE S-572.1, see nozzle catalogs). Under certain conditions, drop nozzles may be required to obtain complete coverage of plant surfaces. Follow manufacturer's specifications for ideal nozzle spacing and spray pressure. Minimize boom height to optimize uniformity of coverage and maximize deposition (optimize on-target deposition) to reduce drift.

#### **Orchard/Grove Spraying Application**

**Dilute Spray Application:** This application method is based upon the premise that all plant parts are thoroughly wetted. To determine the number of gallons of dilute spray required per acre, contact your state agricultural experiment station, certified pest control advisor, or extension specialist for assistance.

**Concentrate Spray Application:** This application method is based upon the premise that all the plant parts are uniformly covered with spray solution but not to the point of runoff as with a dilute spray. Instead, a lower spray volume is used to deliver the same application rate per acre as used for the dilute spray.

#### Aerial Application

Apply in a minimum spray volume of 3 gallons per acre. Mount the spray boom on the aircraft so as to minimize drift caused by wing tip or rotor vortices. Use the minimum practical boom length and do not exceed 75% of the wing span or 80% of the rotor diameter. Flight speed and nozzle orientation must be considered in determining droplet size. Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Do not apply when wind speed exceeds 10 mph.

#### Spray Adjuvants

The addition of agricultural adjuvants to sprays of Transform WG may improve initial spray deposits, redistribution and weatherability. Select adjuvants that are recommended and registered for your specific use pattern and follow their use directions. When an adjuvant is to be used with this product, it is recommended to use a Chemical Producers and Distributors Association certified adjuvant. Always add adjuvants last in the mixing process.

#### **Chemigation Application – Potatoes Only**

Transform WG may be applied through properly equipped chemigation systems for insect control in potatoes. Do not apply Transform WG by chemigation to other crops unless otherwise specified by a state-specific 24(c) label.

**Use Directions for Chemigation:** Transform WG may be applied through overhead sprinkler irrigation systems that will apply water uniformly, including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, micro sprinkler, or hand move. Do not apply this product through any other type of irrigation system. Sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units are not recommended.

For continuously moving systems, the mixture containing Transform WG must be injected continuously and uniformly into the irrigation water line as the sprinkler is moving. If continuously moving irrigation equipment is used, apply in no more than 0.25 inch of water. For irrigation systems that do not move during operation, apply in no more than 0.25 inch of irrigation immediately before the end of the irrigation cycle.

**Chemigation Preparation:** The following use directions are to be followed when this product is applied through irrigation systems. Thoroughly clean the chemigation system and tank of any fertilizer or chemical residues, and dispose of the residues according to state and federal laws. Flush the injection system with soap or a cleaning agent and water. Determine the amount of Transform WG needed to cover the desired acreage. Mix according to instructions in the Mixing Directions section above. Continually agitate the mixture during mixing and application.

**Chemigation Equipment Calibration:** In order to calibrate the irrigation system and injector to apply the mixture containing Transform WG, determine the following: 1) Calculate the number of acres irrigated by the system; 2) Calculate the amount of product required and premix; 3) Determine the irrigation rate and determine the number of

minutes for the system to cover the intended treatment area; 4) Calculate the total gallons of insecticide mixture needed to cover the desired acreage. Divide the total gallons of insecticide mixture needed by the number of minutes (minus time to flush out) to cover the treatment area. This value equals the gallons per minute output that the injector or eductor must deliver. Convert the gallons per minute to milliliters or ounces per minute if needed. Calibrate the injector system with the system in operation at the desired irrigation rate. It is suggested that the injection pump/system be calibrated at least twice before operation, and the system should be monitored during operation.

**Chemigation Operation:** Start the water pump and irrigation system, and let the system achieve the desired pressure and speed before starting the injector. Check for leaks and uniformity and make repairs before any chemigation takes place. Start the injection system and calibrate according to manufacturer's specifications. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injection system to be thoroughly flushed clean before stopping the system.

#### **Chemigation Restrictions:**

- Lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact state extension service specialists, equipment manufacturers or other experts.
- Do not connect an irrigation system used for pesticide application (including greenhouse systems) to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place with current certification. Specific local regulations may apply and must be followed.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall operate the system and make necessary adjustments should the need arise and continuously monitor the injection.
- Do not apply when wind speed favors drift beyond the area intended for treatment. End guns must be turned off during the application if they irrigate nontarget areas.
- Do not allow irrigation water to collect or run off and pose a hazard to livestock, wells, or adjoining crops.
- Do not enter treated area during the reentry interval specified in the Agricultural Use Requirements section of this label unless required PPE is worn.
- Do not apply through sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units.

## **Chemigation Specific Equipment Requirements:**

- The system must contain an air gap or approved backflow prevention device, or approved functional check valve, vacuum relief valve (including inspection port), and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information or state specific regulations.
- The pesticide injection line must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection chemical supply.
- A pesticide injection pump must also contain a functional interlock, e.g., mechanical or electrical to shut off chemical supply when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection when the water pressure drops too low or water flow stops.
- Use of public water supply requires approval of a backflow prevention device or air gap (preferred) by both state and local authorities.
- Systems must use a metering device, such as a positive displacement injection pump (or flow meter on eductor) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. An electric powered pump must meet Section 675 for "Electrically Driven or Controlled Irrigation Machines" NEC 70.
- To insure uniform mixing of the insecticide in the water line, inject the mixture in the center of the pipe diameter or just ahead of an elbow or tee in the irrigation line so that the turbulence created at those points will assist in mixing. The injection point must be located after all backflow prevention devices on the water line.
- The tank holding the insecticide mixture should be free of rust, fertilizer, sediment, and foreign material, and equipped with an in-line strainer situated between the tank and the injection point.

# **Rotational Crop Restrictions**

The following rotational crops may be planted at intervals defined below following the final application of Transform WG at specified rates for a registered use.

Сгор	Re-Planting Interval
Alfalfa, artichoke (globe), asparagus,	no restrictions
avocado, barley, Brassica head and stem	
vegetables (crop group 5-16), <i>Brassica</i>	
leafy greens (subgroup 4-16B), bulb	
vegetables (crop group 3-07), bushberry	
(subgroup 13-07B), cacao, caneberry	
(subgroup 13-07A), canola (rapeseed)	
(subgroup 20A), celtuce, citrus (crop	
group 10), corn (field, pop, sweet, grown	
for seed), cotton, cucurbit vegetables	
(crop group 9), Florence fennel, fruiting	
vegetables (crop group 8), leafy greens	
(subgroup 4-16A), leafy petiole	
vegetables (subgroup 22B), millet, oats,	
okra, ornamentals (herbaceous and	
woody, in greenhouses and nurseries),	
pineapple, pome fruits (crop group 11),	
rice, root and tuber vegetables (subgroup	
1A), root vegetables (except sugar beet)	
(subgroup 1B),rye, small-fruit vine	
climbing (subgroup 13-07F) (except	
fuzzy kiwi) and low growing berries	
(subgroup 13-07G)) (except strawberry),	
sorghum, soybean, stone fruits (crop	
group 12-12), strawberry, succulent,	
edible podded and dry beans, sunflower	
(subgroup 20B), teff, teosinte, treenuts	
(crop group 14-12), tree plantations,	
triticale, tuberous and corm vegetables	
(subgroup 1C), tuberous and corm	
vegetables (except potato) subgroup	
1D), turfgrass, and wheat.	
all other crops grown for food or feed	30 days

# **Use Directions**

# Alfalfa

## Pests and Application Rates:

Pests	Transform WG (oz/acre)
aphids	0.75 – 1.0 (0.023 – 0.031 lb ai/acre)
Tarnished plant bug Western tarnished plant bug	1.5 – 2.75 (0.047 – 0.086 lb ai/acre)

Application Timing: Treat in accordance with local economic thresholds. Consult your company representative,

cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of grazing, or forage, fodder, or hay harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- · Do not make more than two applications per cutting.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

# Artichoke (globe)

Pests and Application Rates:

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.0 (0.023 – 0.031 lb ai/acre)
plant bugs	1.5 - 2.25 (0.047 - 0.071 lb ai/acre)
whitefly (suppression)	2.25 – 2.75 (0.071 – 0.086 lb ai/acre)

**Application Timing:** Treat when pests appear or in accordance with local economic thresholds. Consult your company representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- · Preharvest Intervals: Do not apply within 3 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

## Asparagus

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.5
	(0.023 – 0.047 lb ai/acre)
thrips (suppression)	2.25 – 2.75
	(0.071 - 0.086 lb ai/acre)

**Application Timing:** Treat when pests appear or in accordance with local economic thresholds. Consult your company representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Apply to asparagus ferns only after harvest of spears.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.

- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

## Avocado

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
aphids	0.75 – 1.5
	(0.023 – 0.047 lb ai/acre)
thrips (suppression only)	1.5 – 2.75
	(0.047 – 0.086 lb ai/acre)

**Application Timing:** Treat when pests appear or in accordance with local economic thresholds. Consult your company representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Intervals: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Trasnform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

# Barley, Oats, Rye, Teff, Triticale and Wheat

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
Aphids, including Russian wheat aphid andgreenbug	0.75 – 1.5 (0.023 – 0.047 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- **Preharvest Interval:** Do not apply within 14 days of grain or straw harvest or within 7 days of grazing, or forage, fodder, or hay harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than two applications per crop.
- Do not apply more than a total of 2.8 oz of Transform WG (0.09 lb ai of sulfoxaflor) per acre per year.

# Brassica Head and Stem Vegetables (Crop Group 5-16)<sup>1</sup> and Kohlrabi

<sup>1</sup>*Brassica* head and stem vegetables (crop group 5-16): broccoli, Brussels sprouts, cabbage, cauliflower, Chinese cabbage (bok choy), Napa cabbage, cultivars, varities, and hybrids of these commodities.

	Transform WG
Pests	(oz/acre)

Aphids	0.75 – 1.0 (0.023 – 0.031 Ib ai/acre)
silverleaf whitefly sweetpotato whitefly	2.0 – 2.75 (0.063 – 0.086 Ib ai/acre)
thrips (suppression only)	2.75 (0.086 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Two applications may be required for optimum control of whiteflies.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 3 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

# Bulb Vegetables (Crop Group 3-07)<sup>1</sup>

<sup>1</sup>Bulb vegetables (crop group 3-07) including beltsville bunching onion, bulb daylilly, bulb fritillaria, bulb garlic, bulb lily, bulb onion, bulb shallot, Chinese bulb onion, Chinese fresh leaf chive, elegans hosta, fresh leaf chive, fresh leaf shallot, fresh onion, garlic, great-headed bulb garlic, green onion, kurrat, lady's leek, leek, leaf fritillaria, macrostem onion, pearl onion, potato bulb onion, serpent bulb garlic, tree onion tops, Welsh onion tops, wild leek, and cultivars, varieties, and/or hybrids of these

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
onion thrips (suppression only)	2.75 (0.086 lb
	ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

## Bushberry (Subgroup 13-07B)<sup>1</sup>

<sup>1</sup>Bushberry (subgroup 13-07B) including aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.5 (0.023 – 0.047 lb ai/acre)
Leafhopper mealybugs plant bugs	1.5 – 2.75 (0.047 – 0.086 lb ai/acre)
scales (suppression) stink bugs (suppression) thrips (suppression)	2.75 (0.086 lb ai/acre)

**Application Timing:** Treat when pests appear or in accordance with local economic thresholds. Consult your company representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not within 1 day of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

## Cacao

Pests and Application Rates:

Pests	Transform WG (oz/acre)
Black citrus aphid	1.2 (0.038 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 3 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 28 days apart.
- Do not make more than four applications per crop.
- Do not apply more than a total of 4.8 oz of Transform WG (0.14 lb ai of sulfoxaflor) per acre per year.

## Caneberry (Subgroup 13-07A)<sup>1</sup>

<sup>1</sup>Blackberry; loganberry; raspberry, black and red; wild raspberry; cultivars, varieties, and/or hybrids of these

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.5 (0.023 – 0.047 lb ai/acre)
Leafhopper mealybugs plant bugs	1.5 – 2.75 (0.047 – 0.086 lb ai/acre)
scales (suppression) stink bugs (suppression) thrips (suppression)	2.75 (0.086 lb ai/acre)

**Application Timing:** Treat when pests appear or in accordance with local economic thresholds. Consult your company representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not within 1 day of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

# Canola (Rapeseed) (Subgroup 20A)<sup>1</sup>

<sup>1</sup>Canola (rapeseed) (subgroup 20A) including borage, canola, crambe, cuphea, echium, flax seed, gold of pleasure, hare's ear mustard, lesquerella, lunaria, meadowfoam, milkweed, mustard seed, oil radish, poppy seed, rapeseed, sesame, sweet rocket cultivars, varieties and/or hybrids of these

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
Aphids	0.5 – 0.75 (0.016 – 0.023 Ib ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 14 days of grain, straw, forage, fodder, or hay harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than two applications per year.
- Do not apply more than a total of 1.5 oz of Transform WG (0.046 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

# Citrus (Crop Group 10)<sup>1</sup>

<sup>1</sup>Citrus (crop group 10) including citrus citron, grapefruit, kumquat, lemon, lime, orange (sweet), orange (sour) tangelo, tangerine, and hybrids of these

	Transform WG
Pests	(oz/acre)

Aphid	0.75 – 1.5
	(0.023 - 0.047 lb
	ai/acre)
Asian citrus psyllid	1.5 – 2.75
citrus snow scale	(0.047 – 0.086 lb
mealybugs	ai/acre)
Citrus thrips	2.75
Florida red scale	(0.086 lb ai/acre)
	· · · ·
Suppression only:	2.75
California red scale	(0.086 lb ai/acre
citricola scale	

Advisory Pollinator Statement: Notifying known beekeepers within 1 mile of the treatment area 48 hours before the product is applied will allow them to take additional steps to protect their bees. Also, limiting application to times when managed bees and native pollinators are least active, e.g., 2 hours prior to sunset or when the temperature is below 50°F at the site of application, will minimize risk to bees. The RT<sub>25</sub> for this product is less than or equal to 3 hours.

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Time application for scales to the crawler stage.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 1 day of harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Only one application is allowed between 3 days before bloom and until after petal fall per year.

# Corn (Field, Pop, Sweet, Grown for Seed), Millet, Sorghum and Teosinte Not for use on sweet sorghum

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
aphids	0.75 – 1.5 (0.023 – 0.047 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

Sweet Corn

• Preharvest Interval: Do not apply within 7 days of harvest.

- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than two applications per acre per year.
- Do not apply more than a total of 3.0 oz of Transform WG (0.09 lb ai of sulfoxaflor) per acre per year.

#### Corn (Field, Pop, Sweet, Grown for Seed) Millet, Sorghum and Teosinte

- **Preharvest Interval:** Do not apply within 14 days of grain or straw harvest or within 7 days of grazing, forage, fodder, or hay harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than two applications per acre per year.
- Do not apply more than a total of 3.0 oz of Transform WG (0.09 lb ai of sulfoxaflor) per acre per year.
- Do not use on sweet sorghum.
- Do not apply product 3 days before bloom or until after seed set.

# Cotton

Pests and Application Rates:

Pests	Transform WG
	(oz/acre)
cotton aphid	0.75 – 1.0
	(0.023 – 0.031
	lb ai/acre)
cotton fleahopper	0.75 – 1.5
	(0.023 – 0.047
	lb ai/acre)
tarnished plant bug	1.5 – 2.25
western tarnished	(0.047 – 0.071
plant bug	lb ai/acre)
sweetpotato	2.0 – 2.25
whitefly,	(0.063 – 0.071
silverleaf whitefly	lb ai/acre)
Suppression only:	2.0 – 2.25
brown stink bug,	(0.063 – 0.071
southern green	lb ai/acre)
stink bug, thrips	

**Advisory Pollinator Statement:** Notifying known beekeepers within 1 mile of the treatment area 48 hours before the product is applied will allow them to take additional steps to protect their bees. Also, limiting application to times when managed bees and native pollinators are least active, e.g. 2 hours prior to sunset or when the temperature is below 50° F at the site of application will minimize risk to bees. The RT<sub>25</sub> for this product is less than or equal to 3 hours.

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations. Two applications may be required for optimum tarnished plant bug control under high pest pressure or heavy immigration of plant bugs from other crops.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 14 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 5 days apart.
- Do not make more than four applications per acre per year.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

## Cucurbit Vegetables (Crop Group 9)<sup>1</sup>

<sup>1</sup>Cucurbit vegetables (crop group 9) including balsam apple, balsam pear, bitter melon, cantaloupe, casaba, chayote, Chinese cucumber, Chinese okra, crenshaw melon, crookneck squash, cucumber, cucuzza, edible gourds, golden pershaw melon, hechima, honey balls, honeydew melon, hyotan, mango melon, Persian melon, pineapple melon, pumpkin, Santa Claus melon, scallop squash, snake melon, spaghetti squash, straightneck squash, summer squash, true cantaloupe, vegetable marrow, watermelon, winter squash, and other varieties and/or hybrids of these

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
Aphids	0.75
	(0.023 lb ai/acre)
silverleaf whitefly	2.0 – 2.25
sweetpotato whitefly	(0.063 – 0.071 lb
	ai/acre)
thrips (suppression only)	2.25
	(0.071 lb ai/acre)

Advisory Pollinator Statement: Notifying known beekeepers within 1 mile of the treatment area 48 hours before the product is applied will allow them to take additional steps to protect their bees. Also, limiting application to times when managed bees and native pollinators are least active, e.g., 2 hours prior to sunset or when the temperature is below 50°F at the site of application, will minimize risk to bees. The RT<sub>25</sub> for this product is less than or equal to 3 hours.

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Two applications may be required for optimum control of whiteflies

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- · Preharvest Interval: Do not apply within 1 day of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

# Fruiting Vegetables (Crop Group 8)<sup>1</sup> and Okra

<sup>1</sup>Fruiting vegetables (crop group 8) including bell pepper, eggplant, groundcherry, pimento, sweet pepper, tomatillo, tomato

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.0 (0.023 – 0.031 lb ai/acre)
plant bugs	1.5 – 2.25 (0.047 - 0.071 lb ai/acre)
greenhouse whitefly (outdoors) silverleaf whitefly sweetpotato whitefly	2 – 2.25 (0.063 – 0.071 lb ai/acre)
thrips (suppression only)	2.25

(0.071 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Two applications may be required for optimum control of whiteflies.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 1 day of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

# Leafy Greens (Subgroup 4-16A)<sup>1</sup>, *Brassica* Leafy Greens (subgroup 4-16B)<sup>2</sup>, Leafy Petiole Vegetable (Subgroup 22B)<sup>3</sup>, Celtuce, and Florence Fennel

<sup>1</sup>Leafy greens (subgroup 4-16A) including Amaranth, Chinese; amaranth, leafy; aster, Indian; blackjack; cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; corn salad; cosmos; dandelion, leaves; dang-gwi, leaves; dillweed; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; Good King Henry; huauzontle; jute, leaves; lettuce, bitter; lettuce, head; lettuce, leaf; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, winter; radicchio; spinach; spinach, Malabar; spinach, New Zealand; spinach, tanier; Swiss chard; violet, Chinese, leaves; cultivars, varieties, and hybrids of these commodities.

- <sup>2</sup>*Brassica* Leafy Greens (subgroup 4-16B) Arugula; broccoli, Chinese; broccoli raab; cabbage, abyssinian; cabbage, Chinese, bok choy; cabbage, seakale; collards; cress, garden; cress, upland; hanover salad; kale; maca, leaves; mizuna; mustard greens; radish, leaves; rape greens; rocket, wild; shepherd's purse; turnip greens; watercress; cultivars, varieties, and hybrids of these commodities
- <sup>3</sup>Leafy Petiole Vegetable (subgroup 22B) including cardoon; celery; celery, Chinese; fuki; rhubarb; udo; zuiki; cultivars, varieties, and hybrids of these commodities

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.0
	(0.023 - 0.031 lb
	ai/acre)
silverleaf whitefly	2.0 – 2.75
sweetpotato whitefly	(0.063 – 0.086
	lb ai/acre)
thrips (suppression only)	2.75
	(0.086 lb
	ai/acre)

#### Pests and Application Rates:

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Two applications may be required for optimum control of whiteflies

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 3 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

# Leaves of Root and Tuber Vegetables (Crop Group 2)<sup>1</sup>

<sup>1</sup>Leaves of root and tuber vegetables (crop group 2) including bitter cassava, black salsify, carrot, celeriac (celery root), chicory, dasheen (taro), edible burdock, garden beet, oriental radish (daikon), parsnip, radish, rutabaga, sugar beet, sweet cassava, sweet potato, tanier, true yam, turnip, turnip-rooted chervil **Pests and Application Rates:** 

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.0 (0.023 – 0.031 lb ai/acre)
Leafhoppers	1.5 – 2.75 (0.047 – 0.086 lb ai/acre)
silverleaf whitefly sweetpotato whitefly	2.0 – 2.75 (0.063 – 0.086 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Two applications may be required for optimum control of whiteflies. **Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

# Ornamentals: (Herbaceous and Woody) Growing in Greenhouses and Nurseries Restrictions:

#### Not for residential use

Do not apply Transform WG to edible plants/crops in greenhouses.

#### Pests and Application Rates:

Pests	Transform WG (oz/3 gallons)	Transform WG (oz/100 gallons)	Transform WG (oz/acre)
aphids mealybugs such as: citrus mealybug Lygus Bugs	0.02 – 0.03 (0.63 – 1.0 g)	0.75 – 1.12 (21 – 31 g)	1.5 –2.25 (0.047 – 0.071) lb ai/acre) (42 – 63 g product/acre)
lacebug whiteflies pine needle scale (time application to the crawler stage)	0.03 (1.0 g)	1.12 (31 g)	2.25 (0.071 lb ai/acre) (63 g product/acre)
scales (time application to the crawler stage), such as: cottony cushion or false oleader (suppression)	0.04 (1.1 g)	1.37 (38 g)	2.75 (0.086 lb ai/acre) (77 g product/acre)

Advisory Pollinator Statement: Notifying known beekeepers within 1 mile of the treatment area 48 hours before

the product is applied will allow them to take additional steps to protect their bees. Also, limiting application to times when managed bees and native pollinators are least active, e.g., 2 hours prior to sunset or when the temperature is below 50°F at the site of application, will minimize risk to bees. The RT<sub>25</sub> for this product is less than or equal to 3 hours.

**Application Method:** Dilute Transform WG in water and apply using suitable hand- or power-operated application equipment (such as portable pump-up, backpack, hydraulic, boom) in a manner to provide complete and uniform plant coverage.

**Application Rate:** Transform WG may be used up to a maximum labeled rate of 1.37 oz per 100 gallons, or 2.75 oz per acre, per application on ornamentals as a general treatment regardless of the target insect pest, do not exceed 2.25 oz per acre if plants are in bloom. Use pest specific rates when a single insect pest or group of insect pests within a rate category is the only intended target.

#### Aerial Application for Nurseries:

Transform WG may be aerially applied to commercially grown ornamentals only. Aerial or ground applications in production agriculture or directed ground applications to individual plants are permitted. Avoid making aerial applications in immediate proximity of residential, commercial, government, institutional or other structures where people may be present including homes, apartments, offices, churches, schools, and businesses. Refer to **Spray Drift Management** section to reduce drift. However, use is limited to directed ground applications when nurseries are located next to urban areas.

**Spray Volume:** Uniform coverage of both upper and lower leaf surfaces is critical for effective insect control but avoid excessive runoff.

**Phytotoxicity:** Transform WG has been tested alone on a wide variety of herbaceous and woody ornamental plants without phytotoxic symptoms. However, because it is not possible to test all possible tank mix combinations (including adjuvants) and ornamental plant species, varieties, and cultivars, and because environmental factors and varietal and plant stage of growth may affect phytotoxic expression, it is recommended that a small group of test plants be treated at the specified use rate of Transform WG either alone or in tank mix combinations and observed for at least 5 to 7 days to determine phytotoxicity before treating large numbers of those plants. **Important:** The user assumes responsibility for determining if Transform WG is safe to treated plants when applied either alone or in tank mixtures under commercial growing conditions.

#### **Restrictions – Greenhouses**

A greenhouse is defined as a structure or space enclosed with a nonporous covering inside which plants are produced

- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Regardless of the crop or pest being treated do not apply Transform WG more than 6 times in a 12-month period inside a greenhouse or a structure that can be altered to be closed or open. Do not make more than two consecutive applications.
- Do not apply to edible crops (any stage), for use on ornamentals only.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per crop per year.

#### **Restrictions – Nurseries**

A nursery is defined as a facility engaged in the outdoor production of plants.

- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than two consecutive applications.
- Do not make more than four applications per crop per year.
- Do not make more than one application during bloom. The single application during bloom must not exceed a rate of 2.25 oz (0.071 lb/ai per acre).
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year for crops grown in-ground.
- For crops grown in containers, do not apply more than 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per crop per year.
- Not for residential use

# Pineapple

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
mealybugs	1.5 – 2.75 (0.047 – 0.086 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than two applications per acre per year.
- Do not apply more than a total of 5.5 fl oz of Transform WG (0.18 lb ai of sulfoxaflor) per acre per year.

# Pome Fruits (Crop Group 11)<sup>1</sup>

<sup>1</sup>Pome fruits (crop group 11) including apples, crabapple, loquat, mayhaw, pears, quince

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
aphids	0.75 – 1.5
white apple leafhopper	(0.023 - 0.047 lb
	ai/acre)
plant bugs	1.5 – 2.75
woolly apple aphid	(0.047 – 0.086 lb
	ai/acre)
pear psylla (suppression	2.75
only)	(0.086 lb ai/acre)
San Jose scale	
(suppression only)	

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Time application for San Jose scale to the crawler stage.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

# Rice

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
Suppression only: brown stink bug, rice stink bug, southern green stink bug	2.75 (0.086 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 14 days of grain or straw harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than four applications per acre per year.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not release floodwater within 7 days of an application.
- Do not use treated rice fields for the aquaculture of edible fish and crustaceans.

# Root and Tuber Vegetables (subgroup 1 A), Root Vegetables (except sugar beet) (subgroup 1B)<sup>1</sup>

<sup>1</sup>Root and tuber vegetables (subgroup 1A), root vegetables (except sugar beet) (subgroup 1B) including bitter black salsify, carrot, celeriac, chicory, daikon, edible burdock, garden beet, ginseng, horseradish, oriental radish, parsnip, radish, rutabaga, salsify, skirret, Spanish salsify, sugar beet, turnip, turnip-rooted chervil, turnip-rooted parsley

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.5 (0.023 – 0.047 Ib ai/acre)
Leafhoppers	1.5 – 2.75 (0.047 – 0.086 Ib ai/acre)
silverleaf whitefly sweetpotato whitefly	2.0 – 2.75 (0.063 – 0.086 Ib ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Two applications may be required for optimum control of whiteflies.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.

- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

# Tuberous and Corm Vegetables (subgroup 1C), Tuberous and Corm Vegetables (except

**potato)** (subgroup 1D)<sup>1</sup>Tuberous and corm vegetables (subgroup 1C), tuberous and corm vegetables (except potato) (subgroup 1D)including arracacha, arrowroot, bitter cassava, chayote (root), Chinese artichoke, chufa, dasheen, edible canna, ginger, Jerusalem artichoke, leren, potato, sweet cassava, sweet potato, tanier, true yam, turmeric, yam, yam bean

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
aphids	0.75 – 1.5 (0.023 – 0.047 Ib ai/acre)
Leafhoppers	1.5 – 2.25 (0.047 – 0.071 Ib ai/acre)
Potato psyllid silverleaf whitefly sweetpotato whitefly	2.0 – 2.25 (0.063 – 0.071 Ib ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Two applications may be required for optimum control of whiteflies.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

# Small Fruit Vine Climbing (Except Fuzzy Kiwifruit) (Subgroup 13-07F)<sup>1</sup> and Low Growing Berry (Subgroup 13-07G)<sup>2</sup> (except strawberry)

<sup>1</sup>Small fruit vine climbing (except fuzzy kiwifruit) (subgroup 13-07F) including amur river grape, gooseberry, grape, hardy kiwifruit, Maypop, schisandra berry, and cultivars, varieties and/or hybrids of these

<sup>2</sup>Low growing berry (subgroup 13-07G) (except strawberry) including bearberry, bilberry, lowbush blueberry, cloudberry, cranberry, lingonberry, muntries, partridgeberry, and cultivars, varieties and/or hybrids of these

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
grape leafhopper	1.5 – 2.75
mealybugs	(0.047 – 0.086
plant bugs	lb ai/acre)
thrips (suppression only)	2.75
	(0.086 lb
	ai/acre)

Application Timing: Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local

use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

#### Preharvest Interval:

- Subgroup 13-07F Do not apply within 7 days of harvest
- Subgroup 13-07G Do not apply within 1 day of harvest
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

## Soybean

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
soybean aphid	0.75 – 1.0 (0.023 – 0.031 Ib ai/acre)
Suppression only: brown stink bug southern green stink bug	2.0 – 2.25 (0.063 – 0.071 Ib ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of seed, forage or hay harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- No more than two applications may be made to soybean forage.

# Stone Fruits (Crop Group 12-12)<sup>1</sup>

<sup>1</sup>Stone fruits (crop group 12-12) including apricot, nectarine, peach, plum, prune, sweet cherry, tart cherry

Pests and Application Rates:

Pests	Transform WG (oz/acre)
aphids	0.75 – 1.5
	(0.023 - 0.047 lb
	ai/acre)
San Jose scale	2.75
(suppression only)	(0.086 lb ai/acre)
western flower thrips	
(suppression only)	

Application Timing: Treat in accordance with local economic thresholds. Consult your company representative,

cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Time application for San Jose scale to the crawler stage.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

## Strawberry

#### **Pests and Application Rates:**

Pests	Transform WG (oz/acre)
plant bugs	1.5 – 2.25
	(0.047 – 0.071
	lb ai/acre)
thrips (suppression only)	2.25
	(0.071 lb
	ai/acre)

**Advisory Pollinator Statement:** Notifying known beekeepers within 1 mile of the treatment area 48 hours before the product is applied will allow them to take additional steps to protect their bees. Also, limiting application to times when managed bees and native pollinators are least active, e.g., 2 hours prior to sunset or when the temperature is below 50°F at the site of application, will minimize risk to bees. The RT<sub>25</sub> for this product is less than or equal to 3 hours.

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- · Preharvest Interval: Do not apply within 1 day of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

## Succulent, Edible Podded and Dry Beans<sup>1</sup>

<sup>1</sup>Succulent, edible podded, and dry beans including adzuki bean, asparagus bean, bean, blackeyed pea, broad bean, chickpea, Chinese longbean, cowpea, fava bean, field bean, garbanzo bean, grain lupine, green lima bean, jackbean, kidney bean, lablab bean, lima bean, moth bean, mung bean, navy bean, pinto bean, rice bean, runner bean, snap bean, sweet lupine, sword bean, tepary bean, wax bean, white lupine, white sweet lupine, yardlong bean

	Transform WG	
Pests	(oz/acre)	
aphids	0.75 – 1.0	
	(0.023 – 0.031 lb	
	ai/acre)	

plant bugs	1.5 – 2.25
1 3	(0.047 – 0.071 lb
	ai/acre)
Suppression only:	2.0 – 2.25
brown stink bug	(0.063 – 0.071 lb
southern green stink bug	ai/acre)
thrips (suppression only)	2.25
	(0.071 lb ai/acre)

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.

## Sunflower (Subgroup 20B)

<sup>1</sup>Calendula; castor oil plant; chinese tallowtree; euphorbia; evening primrose; jojoba; niger seed; rose hip; safflower; stokes aster; sunflower; tallowwood; tea oil plant; vernonia; cultivars, varieties, and/or hybrids of these.

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
Aphids	0.75 – 1.0 (0.023 – 0.031 lb ai/acre)
Plant bugs	1.5 – 2.75 (0.047 – 0.086 lb ai/acre)
Thrips (suppression only)	2.75 (0.086 lb ai/acre)

Advisory Pollinator Statement: Notifying known beekeepers within 1 mile of the treatment area 48 hours before the product is applied will allow them to take additional steps to protect their bees. Also, limiting application to times when managed bees and native pollinators are least active, e.g., 2 hours prior to sunset or when the temperature is below 55°F at the site of application, will minimize risk to bees. The RT<sub>25</sub> for this product is less than or equal to 3 hours.

**Application Timing:** Treat when pests appear or in accordance with local economic thresholds. Consult your company representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not within 14 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than two applications per crop.
- Do not apply more than a total of 5.5 oz of Transform WG (0.172 lb ai of sulfoxaflor) per acre per year.

# Tree Nuts (Crop Group 14-12)<sup>1</sup>

<sup>1</sup>Tree nuts (crop group 14-12) including almonds, cashew, chestnut, filbert (hazelnut), macadamia nut, pecan, pistachio, walnut

#### Pests and Application Rates:

	Transform WG	
Pests	(oz/acre)	
aphids	0.75 – 1.5	
	(0.023 - 0.047 lb	
	ai/acre)	
San Jose scale	2.75	
(suppression only)	(0.086 lb ai/acre)	

**Application Timing:** Treat in accordance with local economic thresholds. Consult your company representative, cooperative extension service, certified crop advisor or state agricultural experiment station for any additional local use recommendations for your area. Time application for San Jose scale to the crawler stage.

**Application Rate:** Use the higher rate in the rate range for heavy pest populations.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 7 days of harvest.
- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than four applications per crop.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

# **Tree Plantations**

#### Conifers, including Christmas trees, and deciduous trees

Pests	Transform WG oz/100 gallons	Transform WG oz/acre
Aphids mealybugs such as: citrus mealybug	0.75 – 1.12 (21 – 31 g)	1.5 – 2.25 (0.047 – 0.071 lb ai/acre) (42 – 63 g)
lacebug pine needle scale (time application to the crawler stage)	1.12 (31 g)	2.25 (0.071 lb ai/acre) (63 g)
scale (time application to the crawler stage) such as cottony cushion	1.37 (38 g)	2.75 (0.086 lb ai/acre) (77 g)

Advisory Pollinator Statement: Notifying known beekeepers within 1 mile of the treatment area 48 hours before the product is applied will allow them to take additional steps to protect their bees. Also, limiting application to times when managed bees and native pollinators are least active, e.g., 2 hours prior to sunset or when the temperature is below 50°F at the site of application, will minimize risk to bees. The RT<sub>25</sub> for this product is less than or equal to 3 hours.

**Application Timing:** Time applications to reach larvae when small or just hatching. Time application for scale to the crawler stage. A 14-day re-treatment schedule may be necessary to maintain control. Consult with your company representative, state agricultural experiment station, certified pest control advisor, or extension specialist for information on application timing for specific pests in your area.

**Application Rate:** The rate of Transform WG applied per acre will depend upon tree size and severity of infestation. Use the higher rate in the rate range for large trees or heavy infestations. Apply in sufficient volume to ensure thorough coverage.

#### **Restrictions:**

- Minimum Treatment Interval: Do not make applications less than 14 days apart.
- Do not make more than two consecutive applications.
- Do not make more than four applications per crop per year
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not apply this product at any time between 3 days prior to bloom and until after petal fall.

## Turfgrass

#### (For application only to commercial sod farms)

#### Pests and Application Rates:

Pests	Transform WG (oz/acre)
aphids (greenbug)	1.5 (0.047 lb ai/acre)
chinch bugs (suppression only)	2.75 (0.086 lb ai/acre)

**Application Method:** Dilute Transform WG in water and apply using suitable hand- or power-operated application equipment (such as tractor-mounted, portable pump-up, backpack, hydraulic, boom, turf "spray gun") in a manner to provide complete and uniform plant coverage.

#### **Restrictions:**

- Minimum Treatment Interval: Do not make applications less than 7 days apart.
- Do not make more than two consecutive applications per crop.
- Do not apply more than a total of 8.5 oz of Transform WG (0.266 lb ai of sulfoxaflor) per acre per year.
- Do not feed treated grass cuttings (hay) or seed screenings to livestock or use hay for livestock bedding.
- Do not apply to golf courses, parks, playgrounds, athletic fields, or residential lawns.
- · Do not make aerial applications to turfgrass.
- Only for use on commercial sod farms.

## Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

#### Warranty Disclaimer

Corteva Agriscience warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Corteva Agriscience MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

## **Inherent Risks of Use**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Corteva Agriscience or the seller. Corteva Agriscience will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by Corteva Agriscience. To the extent permitted by law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

#### Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, tort, strict liability, or other legal theories), shall be limited to, at Corteva Agriscience's election, one of the following:

- 1. Refund of purchase price paid by buyer or user for product bought, or
- 2. Replacement of amount of product used

To the extent permitted by law, Corteva Agriscience shall not be liable for losses or damages resulting from handling or use of this product unless Corteva Agriscience is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Corteva Agriscience be liable for consequential, incidental or special damages or losses.

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