



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

100-1570

Date of Issuance:

11/14/16

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Talinor

Name and Address of Registrant (include ZIP Code):

Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, NC 27419

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

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

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(B). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Rachel Holloman, Branch Chief
Fungicide and Herbicide Branch, Registration Division (7505P)

Date:

11/14/16

2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, “EPA Reg. No. 100-1570.”
3. You are required to submit to the Agency: acute and chronic studies of bicyclopyrone on honey bee larval development and survival, and chronic studies of adult bees. The deadline for you to submit these required data to the Agency is 4/21/18. Your failure to provide these data in a timely or adequate manner may result in initiation of a cancellation action against your registration.
4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 2/25/15
- Alternate CSF 1 dated 2/25/15

If you have any questions, please contact Erik Kraft by phone at 703-308-9358, or via email at kraft.erik@epa.gov.



Rachel Holloman, Branch Chief
Fungicide and Herbicide Branch, Registration Division (7505P)

Enclosure

GROUP 6 | 27 HERBICIDES

Talinor™ Herbicide

Postemergence herbicide for control of broadleaf weeds in wheat and barley.

Active Ingredient:	
Bicyclopyrone*	3.41%
Bromoxynil Octanoate**	23.16%
Other ingredients:	73.43%
Total:	100.0%

*CAS No. 352010-68-5

**CAS No.1689-99-2

Talinor Herbicide is an EC formulation containing 0.31 pounds of bicyclopyrone and 1.46 pounds of bromoxynil acid equivalent per gallon.

Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN.

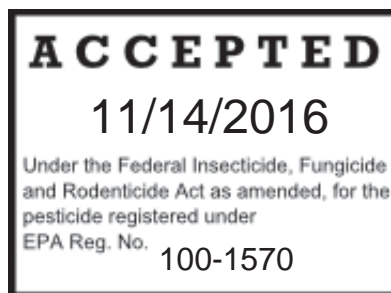
CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-XXX

EPA Est.

2.15 gallons
_____ gallons
Net Contents



FIRST AID	
If swallowed	<ul style="list-style-type: none">• Immediately call a Poison Control Center or doctor.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give any liquid to the person.• Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a Poison Control Center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a Poison Control Center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a Poison Control Center or doctor for further treatment advice.
NOTE TO PHYSICIAN	
Contains petroleum distillates - vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER	
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below.

Mixers, Loaders, Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves (e.g. barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or Viton® ≥ 14 mils)

See engineering controls for additional requirements.

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

Engineering Control Statements

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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 wash water or rinsate.

Ground Water Advisory

Talinor Herbicide contains the active ingredients bicyclopyrone and bromoxynil.

This product is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This product has a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of bicyclopyrone from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Physical and Chemical Hazards

Do not use or store near heat or open flame.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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.

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labelling 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
- Chemical-resistant gloves (e.g. barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or Viton® ≥ 14 mils)

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY AND/OR POOR WEED CONTROL.

PRODUCT INFORMATION

Talinor Herbicide is a selective postemergence herbicide for the control of broadleaf weeds in all varieties of spring wheat (including durum), winter wheat, spring barley, and winter barley.

Talinor Herbicide is readily absorbed through foliage and rapidly inhibits carotenoid biosynthesis and photosynthesis causing plant death in susceptible weeds. Level and rate of control depend on weed species, weed stage at application, growing conditions and crop competition. Thorough spray coverage of target weeds is essential for consistent control.

Resistant Weed Management

Talinor Herbicide contains the active ingredients bicyclopyrone which inhibits the enzyme 4-hydroxyphenyl-pyruvate dioxygenase (Site of Action Group 27) and bromoxynil which inhibits photosynthesis at photosystem II (PS II) (Site of Action Group 6). Some naturally occurring weed populations have been identified as resistant to Group 27 and Group 6 herbicides. Selection of resistant biotypes, through repeated use of these herbicides or lower than directed use rates in the same field, may result in weed control failures. A resistant biotype may be present where poor performance cannot be attributed to adverse environmental conditions or improper application methods. If resistance is suspected, contact your local Syngenta representative and/or agricultural advisor for assistance.

Principles of herbicide resistant weed management:

- Employ integrated weed management practices. Use multiple herbicide sites-of-action with overlapping weed spectrums in rotation, sequences, or mixtures.
- Use the full directed herbicide rate and proper application timing for the hardest to control weed species present in the field.
- Scout fields after herbicide application to ensure control has been achieved.
- Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.
- Monitor site and clean equipment between sites.
- Start with a clean field and control weeds early by using a burndown treatment or tillage in combination with a preemergence residual herbicide as appropriate.
- Use cultural practices such as cultivation and crop rotation, where appropriate.
- Use good agronomic principles that enhance crop competitiveness.

CROP ROTATION INTERVALS

The following crops may be planted at the specified interval following application of Talinor Herbicide.

Rotational Crop	Plant-back interval following a Talinor Herbicide application at 13.7 fl oz/A (months)	Plant-back interval following a Talinor Herbicide application at greater than 13.7 fl oz/A (months)
Alfalfa	9 ^A	12 ^B
Barley	1	1
Bean, black	12	15
Bean, garbanzo (chickpea)	9	9
Bean, great northern	9	9
Bean, kidney	12	15
Bean, lima	9	9
Bean, navy	12	15
Bean, pinto	9	10
Bean, succulent	9	9
Bluegrass, Kentucky	3	3
Canary seed	3	3
Canola	9	10
Corn, field	Anytime	Anytime
Corn, pop	Anytime	Anytime
Corn, seed	Anytime	Anytime
Corn, sweet	1	1
Cotton	10	10
Flax	9	9
Lentil	15	15
Mustard	10	10
Oat	3	3
Onion	9	10
Pea, field	10 ^C	12 ^D
Pea, garden	10	12
Peanut	10	10
Potato	9	9
Rice	10	10
Rye	9	9
Sorghum	10	10
Soybean	10	12
Sugar beet	15	18
Sunflower	9 ^E	9 ^F
Timothy	9	9
Triticale	9	9
Wheat	1	1
All other crops not listed in this table	18	18

^A12 months in the North Dakota counties of Bottineau and Pierce and 15 months in the North Dakota counties of LaMoure and Rolette.

^B15 months in the North Dakota counties of LaMoure and Rolette.

^C12 months in the following Idaho counties of Latah and Lewis, and the North Dakota counties of Bottineau, Burke, Divide, Mountrail, Renville and Ward.

^D15 months in the following Idaho counties of Latah and Lewis, and the North Dakota counties of Bottineau, Burke, Divide, Mountrail, Renville and Ward.

^E12 months in the North Dakota county of Rolette.

^F10 months in Bottineau county, North Dakota and 12 months in Rolette county, North Dakota.

APPLICATION PROCEDURES

Application Timing

Apply Talinor Herbicide to all varieties of spring wheat (including durum), winter wheat, spring barley, and winter barley from the 2-leaf stage to pre-boot stage. Refer to the **Weeds Controlled** section for the appropriate application stage for susceptible broadleaf weeds. Refer to the **Crop Use Directions** section for grazing and harvest restrictions.

Do not apply to a crop that is stressed by conditions such as frost, low fertility, drought, flooding, disease damage, or insect damage as crop injury may result.

For optimum results, apply Talinor Herbicide postemergence to actively growing weeds. An early application will maximize crop yields by reducing weed competition. Weed control following application of Talinor Herbicide alone or in combination with other herbicides can be reduced or delayed under conditions of stress such as drought, heat, insufficient fertility, flooding, and prolonged cool temperatures. Optimum weed control will be obtained if application of Talinor Herbicide is delayed until the conditions of stress have ended and weeds are once again actively growing. Weeds emerging after Talinor Herbicide application will not be controlled.

Rainfastness

Rain occurring within 1 hour after application may reduce the efficacy of Talinor Herbicide.

GROUND AND AERIAL APPLICATION PROCEDURES

For best accuracy, calibrate the sprayer before use.

GROUND APPLICATIONS

Water Volume - Use a minimum spray volume of 10 gallons of water per acre.

Spray Nozzles - Use nozzles that are set up to deliver a medium to coarse quality spray droplet size distribution, according to the ASABE S-572.1 standard. Nozzles must be uniformly spaced along the boom to provide accurate and uniform coverage. Follow the nozzle manufacturer's recommendations for correct operating pressure to achieve the required spray quality, and for nozzle screens. Do not use flood or hollow cone-type nozzles.

Screens - Use a 16-mesh or coarser screen or strainer on the suction side of the pump. Do not place a screen in the recirculation line unless using a roller or piston pump. Use 50-mesh or coarser screens between the pump and boom and at the nozzles.

Pressure - Nozzles should be operated at a pressure that will deliver the required spray quality, according to the manufacturer's guidelines.

Pump - Must have capacity to maintain the required spray pressure at nozzle tips and to maintain the product suspension through tank agitation. A centrifugal pump is recommended with an agitation rate of 20 gal/minute/100 gal tank size. Agitation must be maintained during mixing and spraying.

Good weed coverage with the spray tank mixture is essential for optimum weed control results. Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform. Avoid large spray overlaps which result in excessive rates in the overlap areas. Also, avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. To reduce the potential for spray drift, do not apply when wind speed is above 10 mph or below 2 mph. Allow adequate distance between target area and desirable vegetation to minimize the potential for spray drift to non-target areas. Boom height for broadcast over-the-top application should be based upon the free-standing height of the crop, not height above the soil surface, and should be determined according to the requirements provided by the nozzle manufacturer for the nozzles used to make the application.

Spray Drift Management

Do not apply when weather conditions may cause drift to nontarget areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when wind speed is greater than 10 mph or during periods of temperature inversions.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making a decision.

Information on Droplet Size

The most effective way to reduce spray drift potential is to apply large droplets. Use only nozzles producing medium to coarse droplets. Do not use nozzles producing fine droplets.

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.

Application Height

Applications must be made at the lowest height above the target area that still provides uniform coverage of the target.

Wind

Drift potential is lowest when wind speeds are 10 mph or less. However, many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. Note: Local terrain can influence wind patterns.

Leave a 25-foot buffer downwind of the application to avoid drift to non-target areas.

Temperature Inversions

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates, indicates good vertical air mixing.

Non-Target Areas

Do not apply this pesticide when this product may drift to non-target areas.

AERIAL APPLICATIONS

Apply Talinor Herbicide in water using a minimum spray volume of 5 gal/A. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Make applications at a maximum height of 10 ft above the crop, provided that this may be achieved safely. Nozzles must be set up to deliver a medium to coarse quality spray droplet size distribution, according to the ASABE S572.1 standard. Wind speed must not exceed 10 mph, or be less than 2 mph in order to assure accurate application within the target area.

AERIAL SPRAY DRIFT MANAGEMENT

Spray Drift Management

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer-most nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator must be familiar with and take into account the information covered in the **Aerial Drift Reduction Information**.

Aerial Drift Reduction Information

Importance of Droplet Size

The most effective way to reduce spray drift potential is to apply large droplets. Use only nozzles producing medium to coarse droplets. Do not use nozzles producing fine droplets.

The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See **Wind, Temperature and Humidity**, and **Temperature Inversion** sections of this label).

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released backwards parallel to the airstream will produce larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Length

For some use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications must not be made at a height greater than 10 ft above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

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

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

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

Temperature Inversions

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Non-Target Areas

Do not apply this pesticide when this product may drift to non-target areas. Leave a 50-foot buffer downwind of the application to avoid drift to non-target areas.

Chemigation

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

SPRAY ADDITIVES

Always add the directed rate of CoAct+™ to the spray solution. Add the appropriate amount of CoAct+ based on the Talinor Herbicide application rate according to the table below.

Talinor Herbicide Rate (fl oz/A)	CoAct+ Rate (fl oz/A)
13.7	2.75
16	3.2
18.2	3.6

In addition, add a nonphytotoxic crop oil concentrate (COC) containing 15-20% approved emulsifier at 1% v/v (1 gallon/100 gallons) of finished spray volume. COC is the preferred adjuvant for Talinor Herbicide **or**

If COC is not available, a nonionic surfactant (NIS) may be substituted. Use NIS containing at least 80% active ingredient at 0.25% v/v (1 quart/100 gallons) of finished spray volume. NIS may also be substituted for COC if a tank mixture partner does not allow the use of COC.

Note: When Talinor Herbicide is tank mixed with herbicides that have a built-in adjuvant, do not add additional COC or NIS.

Do not add ammonium sulfate (AMS) containing products to the spray mixture as severe crop injury may occur.

USE RATE

Apply Talinor Herbicide at 13.7 to 18.2 fl oz/A.

WEEDS CONTROLLED

Talinor Herbicide applied as directed in this label will control or partially control the weeds listed in Table 1.

Table 1. Weeds Controlled or Partially Controlled by Talinor Herbicide.

Common Name	Scientific Name	C = Control ¹	Weed Size
		PC = Partial Control ²	
Bedstraw, catchweed	<i>Galium aparine</i>	C	1 - 4 whorls
Buckwheat, wild	<i>Polygonum convolvulus</i>	C	1 - 6 leaf
Canola, volunteer	<i>Brassica napus</i>	C	up to 4 inch diameter
Catchfly, nightflowering	<i>Silene noctiflora</i>	C	1 - 4 leaf
Chickweed, common	<i>Stellaria media</i>	C	2 - 4 inch
Chickweed, mouseear	<i>Cerastium fontanum</i>	C	2 - 4 inch
Cocklebur, common	<i>Xanthium strumarium</i>	C	1 - 4 leaf
Dandelion	<i>Taraxacum officinale</i>	PC	up to 3 inch rosette
Deadnettle, purple	<i>Lamium purpureum</i>	PC	1 - 6 leaf
Fiddleneck, coast	<i>Amsinckia menziesii</i>	C	1 - 4 leaf
Field pennycress	<i>Thlaspi arvense</i>	C	up to 4 inch diameter
Flixweed	<i>Descurainia sophia</i>	C ³	up to 4 inch diameter
Hawksbeard, narrowleaf	<i>Crepis tectorum</i>	PC	1 - 4 leaf
Hempnettle, common	<i>Galeopsis tetrahit</i>	C	1 - 6 leaf
Henbit	<i>Lamium amplexicaule</i>	C/spring, PC/winter ⁴	1 - 6 leaf
Horseweed/marestail	<i>Coryza canadensis</i>	C	Up to 3 inch rosette
Kochia	<i>Kochia scoparia</i>	C	1 - 5 inch
Ladysthumb	<i>Polygonum persicaria</i>	C	1 - 6 leaf
Lambsquarters, common	<i>Chenopodium album</i>	C	2 - 5 inch
London rocket	<i>Sisymbrium irio</i>	C	1 - 6 leaf
Mallow, venice	<i>Hibiscus trionum</i>	C	1 - 4 inch
Marshelder, annual	<i>Iva annua</i>	C	1 - 4 leaf
Mayweed chamomile (dogfennel)	<i>Anthemis cotula</i>	C	2 - 3 inch
Mustard, blue	<i>Chorispoma tenella</i>	C	up to 4 inch diameter
Mustard, tumble/Jim Hill mustard	<i>Sisymbrium altissimum</i>	C	up to 4 inch diameter
Mustard, wild	<i>Sinapis arvensis</i>	C	up to 4 inch diameter
Nightshade, black	<i>Solanum nigrum</i>	C	1 - 4 leaf
Nightshade, cutleaf	<i>Solanum triflorum</i>	C	1 - 4 leaf
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C	1 - 4 leaf
Nightshade, hairy	<i>Solanum physalifolium</i>	C	1 - 4 leaf
Pigweed, Palmer (Palmer amaranth)	<i>Amaranthus palmeri</i>	C	1 - 2 inch
Pigweed, prostrate	<i>Amaranthus blitoides</i>	C	2 - 4 inch
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	2 - 6 inch
Pigweed, smooth	<i>Amaranthus hybridus</i>	C	2 - 4 inch
Plantain, buckhorn	<i>Plantago lanceolata</i>	C	2 - 4 inch
Prickly lettuce	<i>Lactuca serriola</i>	C	1 - 6 leaf
Puncturevine	<i>Tribulus terrestris</i>	C	up to 4 inch diameter
Radish, wild	<i>Raphanus raphanistrum</i>	C	up to 4 inch diameter
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C	2 - 4 inch
Ragweed, giant	<i>Ambrosia trifida</i>	C	2 - 4 inch
Russian thistle	<i>Salsola tragus</i>	C ⁵	2 - 3 inch
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C	up to 4 inch diameter

Common Name	Scientific Name	C = Control ¹	Weed Size
		PC = Partial Control ²	
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	1 - 6 leaf
Sowthistle, annual	<i>Sonchus oleraceus</i>	C	1 - 6 leaf
Sunflower	<i>Helianthus annuus</i>	C	2 - 4 inch
Tansymustard	<i>Descurainia pinnata</i>	C ³	up to 4 inch diameter
Thistle, Canada	<i>Cirsium arvense</i>	PC	Rosette pre-bolt stage
Velvetleaf	<i>Abutilon theophrasti</i>	C	1 - 4 leaf
Waterhemp, common	<i>Amaranthus rudis</i>	C	2 - 4 inch
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C	2 - 4 inch

¹Including ALS, glyphosate or phenoxy-resistant populations.

²Partial control means significant activity, but not always at a level considered acceptable for commercial weed control.

³Rates lower than 18.2 fl oz/A of Talinor Herbicide will only provide partial control of this species.

⁴Application in spring wheat, durum or spring barley will provide control; application in winter wheat or winter barley will provide partial control.

⁵Use the higher end of the Talinor Herbicide rate range when weed populations are dense and/or under less than optimum growing conditions.

BROADLEAF AND GRASS HERBICIDE TANK-MIX DIRECTIONS

Talinor Herbicide may be tank mixed with the following herbicides to broaden the weed control spectrum. Refer to the label of the tank-mix partner for registered crops, additional weeds controlled and directions for use. Observe all precautions and restrictions on the labels of products used in tank mixtures. Use in accordance with the most restrictive of label limitations and precautions. This product cannot be mixed with any other product whose label prohibits such a mixture.

Note: The many formulations of tank-mix partners have varying mixing characteristics. Before Talinor Herbicide is used in tank mixture with other products, the mixture should first be tested in small containers for physical compatibility. For directions on how to conduct a compatibility test, refer to the **Tank-Mix Compatibility Test** section.

Broadleaf Herbicide Tank-Mix Partners

2,4-D amine/ester	Finesse®
Affinity® BroadSpec	Finesse® Grass & Broadleaf
Affinity® TankMix	Glean®
Aim®	Harmony®
Ally®	Harmony® Extra
Ally® Extra	MCPA amine/ester
Amber®	Metribuzin
Banvel®	Orion®
Bronate Advanced™ ¹	Peak®
Buctril® ²	Rave®
Clarity®	Starane®/Starane Ultra
CleanWave™	Starane Flex
Curtail®	Stinger®
Curtail® M	Supremacy®
Dicamba	WideMatch™
Express®	

¹Other equivalent products containing the active ingredients bromoxynil/MCPA esters may be used.

²Other equivalent products containing the active ingredient bromoxynil may be used.

Grass Herbicide Tank-Mix Partners

Axial® Star	Olympus®
Axial® XL	Olympus Flex
Beyond® (Clearfield® varieties only)	Osprey®
Discover® NG	Powerflex
Everest® 2.0	Puma®
Fenoxaprop	Rimfire® Max
GoldSky®	Sierra™
Maverick®	

Note: Tank mixtures of grass herbicides plus Talinor Herbicide plus mixtures of multiple broadleaf herbicide partners may reduce the level of grass control.

TANK-MIX APPLICATION WITH TILT® FUNGICIDE

Talinor Herbicide may be tank mixed with Tilt Fungicide for broadleaf weed control and early season disease suppression. Apply Talinor Herbicide at 13.7 to 18.2 fl oz/A in a tank-mix with Tilt Fungicide at labeled use rates. Refer to the Tilt Fungicide label for specific use directions, application rates, restrictions, and a list of diseases suppressed and/or controlled.

TANK-MIX APPLICATION WITH QUILT XCEL® FUNGICIDE

Talinor Herbicide may be tank mixed with Quilt Xcel Fungicide for broadleaf weed control and early season disease suppression. Apply Talinor Herbicide at 13.7 to 18.2 fl oz/A in a tank-mix with Quilt Xcel Fungicide at 7 fl oz/A. Refer to the Quilt Xcel Fungicide label for specific use directions, restrictions, and a list of diseases suppressed and/or controlled. **Note:** Under certain environmental conditions, tank mixes of Quilt Xcel Fungicide plus herbicides may cause crop injury.

TANK-MIX APPLICATION WITH WARRIOR II WITH ZEON TECHNOLOGY®

Talinor Herbicide may be tank mixed with Warrior II with Zeon Technology for broadleaf weed control and insect control. Apply Talinor Herbicide at 13.7 to 18.2 fl oz/A in a tank-mix with Warrior II with Zeon Technology at directed use rates. Refer to the Warrior II with Zeon Technology label for specific use directions, application rates, restrictions, and a list of insects controlled.

MIXTURES WITH LIQUID NITROGEN FERTILIZERS

Talinor Herbicide may be mixed in a spray solution containing up to 50% liquid nitrogen fertilizer. Add Talinor Herbicide to the water first. Mix thoroughly, then add the liquid nitrogen fertilizer in an amount no greater than 50% of the final volume. **Note:** Under certain environmental conditions, mixtures of liquid nitrogen fertilizers as a partial carrier may cause leaf burn and /or height reduction of the crop.

When using Talinor Herbicide with approved herbicide tank-mix partners, consult the label of the partner product and follow any additional instructions or restrictions on that label which relate to mixture with liquid nitrogen fertilizers.

MIXING PROCEDURES

Prior to using Talinor Herbicide, ensure that the spray tank, lines, screens and filters are thoroughly clean.

Mixing Order Instructions

1. Fill the spray tank with $\frac{1}{2}$ to $\frac{2}{3}$ the required amount of water and begin agitation.
2. Add dry pesticide formulations (WP, DF, etc.).
3. Add Talinor Herbicide and CoAct+.
4. Add liquid pesticide formulations (EC, SC, SL, etc.).
5. Add COC or NIS spray adjuvant.
6. Add the remaining water and maintain agitation throughout the spray operation.
7. **The tank mixture should be sprayed out as soon as it is prepared.**

Be sure to allow each tank-mix component to fully disperse before adding the next.

TANK-MIX COMPATIBILITY TEST

A jar test is recommended prior to tank mixing to ensure compatibility of Talinor Herbicide with mixture partners. Add proportional amounts of tank mixture components in a clear quart jar one at a time in the recommended mixing order. Gently shake or invert capped jar and let stand for 15-30 minutes. If the mixture clumps, forms flakes, oily films or layers or other precipitates, it is not compatible and the tank mixture should not be used.

PROCEDURE FOR CLEANING SPRAY EQUIPMENT

Thoroughly clean application equipment immediately after spraying. To avoid subsequent injury to other crops, immediately after spraying and before spraying other crops, thoroughly remove all traces of Talinor Herbicide from mixing and spraying equipment. The following recommendations are provided:

1. Drain and flush tank walls, boom and all hoses for ten minutes with a clean water/strong detergent or commercial sprayer cleaner mixture. Rinse with clean water. **Do not** clean the sprayer near desirable vegetation, wells or other water sources.
2. Remove all nozzles and screens and wash separately.
3. If other tank-mix partners were used, always refer to the tank-mix partner label for additional cleanup procedures.
4. Dispose of all rinsate according to local, state and federal regulations.

All traces of Talinor Herbicide must be removed before equipment can be used on crops other than wheat or barley.

CROP USE PRECAUTIONS

- Severe crop injury may occur if Talinor Herbicide is tank mixed with any organophosphate or carbamate insecticide.
- Severe crop injury may occur if any organophosphate or carbamate insecticide is applied foliar postemergence within 7 days before or 7 days after Talinor Herbicide application.

CROP USE DIRECTIONS

- Do not treat wheat or barley underseeded with legumes.
- Make no more than 1 application per crop year, not to exceed more than 18.2 fl oz of Talinor Herbicide per acre per year.
- Do not graze livestock or harvest forage for hay from treated wheat or barley for a minimum of 30 days following application.
- Do not harvest grain for a minimum of 60 days following application.
- Do not feed treated wheat or barley straw to livestock for a minimum of 60 days following application.
- Do not exceed 0.5 lb of bromoxynil per acre per year for uses on this label.
- Do not exceed 0.045 lb of bicyclopyrone per acre per year for uses on this label.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in original container only. Store in a cool, dry and well-ventilated place. Protect from excessive heat. Keep container closed when not in use. Do not store near food or feed.

Pesticide Disposal

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

Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling [greater than 5 gallons]

Refillable container. Refill this container with Talinor Herbicide 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 person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 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 approved by state and local authorities.

Container Handling [greater than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple 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 $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its

end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

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