

POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING



Talinor[®]
Herbicide

syngenta[®]

ACTIVE CONSTITUENTS:

175 g/L BROMOXYNIL present as the octanoate

37.5 g/L BICYCLOPYRONE

9.4 g/L CLOQUINTOCET-MEXYL

SOLVENT:

338 g/L HYDROCARBONS, LIQUID

GROUP	C	H	HERBICIDE
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For the post-emergent control of a range of broadleaf weeds in Wheat and Barley

Syngenta Australia Pty Ltd

Level 1, 2-4 Lyonpark Road, Macquarie Park NSW 2113

In a transport emergency dial 000, Police or Fire Brigade

For specialist advice in an emergency only, call 1800 033 111 (24 hours)

APVMA Approval No.: 82256/105296



DIRECTIONS FOR USE

Restraints

- DO NOT apply by air
- DO NOT apply if rainfall is expected within 2 hours of application
- DO NOT apply to weeds under stress from factors including very dry, waterlogged, cold or frosty conditions or nutrient deficiency
- DO NOT apply with liquid urea ammonium nitrate (UAN) fertilisers
- DO NOT apply with ammonium sulphate fertilisers
- DO NOT apply more than 1 application per season
- DO NOT apply after Cereal Growth Stage GS32

Spray Drift Restraints

DO NOT apply with spray droplets smaller than a MEDIUM spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the British Crop Production Council guideline

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour, as measured at the application site

DO NOT apply during surface temperature inversion conditions at the application site

Users of this product **MUST make an accurate written record** of the details of each spray application within 24 hours following application, and must KEEP this record for at least 2 years. The spray application details that must be recorded are:

- 1 date with start and finish times of application
- 2 location address and paddock(s) sprayed
- 3 full name of this product
- 4 amount of product used per hectare and number of hectares applied to
- 5 crop or situation and weed or pest
- 6 wind speed and direction during application
- 7 air temperature and relative humidity during application
- 8 nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application
- 9 name and address of person applying this product.

(Additional record details may be required by the state or territory where this product is used.)

Mandatory No-Spray Zones

DO NOT apply if there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers within 25 metres downwind from the application area

DO NOT apply if there are sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat within 20 metres downwind from the application area

Crop	Weeds	Target Size	Product Rate (mL/ha)	Critical Comments
Wheat, Barley (GS12 to 32)	Wild Radish (<i>Raphanus raphanistrum</i>)	Up to 4 leaf	500 to 750 plus ADIGOR® at 500 mL per 100 L water	Use the higher rate where the density of the target weed is high and/or the weeds are at more advanced growth stages. The higher rate should also be used when environmental conditions are marginal.
		Up to 6 leaf	750 to 1200 plus ADIGOR at 500 mL per 100 L water	

Crop	Weeds	Target Size	Product Rate (mL/ha)	Critical Comments
Wheat, Barley (GS12 to 32)	Ball Mustard (<i>Neslia paniculata</i>), Charlock (<i>Sinapis arvensis</i>), Hedge Mustard (<i>Sisymbrium officinale</i>), Indian Hedge Mustard (<i>Sisymbrium orientale</i>), Turnip Weed (<i>Rapistrum rugosum</i>) Volunteer Canola (<i>Brassica napus</i>),	Up to 4 leaf	500 to 750 plus ADIGOR at 500 mL per 100 L water	Use the higher rate where the density of the target weed is high and/or the weeds are at more advanced growth stages. The higher rate should also be used when environmental conditions are marginal.
		Up to 8 leaf	750 to 1000 plus ADIGOR at 500 mL per 100 L water	
	Prickly Lettuce (<i>Lactuca serriola</i>)	Up to 5 leaf	500 to 750 plus ADIGOR at 500 mL per 100 L water	
	Bastard's Fumitory (<i>Fumaria bastardii</i>), Common Fumitory (<i>Fumaria officinalis</i>), Dense-flower Fumitory (<i>Fumaria densiflora</i>), Small-flowered Fumitory (<i>Fumaria parviflora</i>), Wall Fumitory (<i>Fumaria muralis</i>), Patterson's Curse (<i>Echium plantagineum</i>), Sub Clover (<i>Trifolium subterraneum</i>), White Iron Weed (<i>Buglossoides arvensis</i>)	Up to 6 leaf	500 to 750 plus ADIGOR at 500 mL per 100 L water	
	Bifora (<i>Bifora testiculata</i>), Burr Medic (<i>Medicago polymorpha</i>), seedling Lucerne (<i>Medicago sativa</i>), Snail Medic (<i>Medicago scutellate</i>), Chickpeas (<i>Cier arietinum</i>), Faba Beans (<i>Vicia faba</i>), Field Peas (<i>Pisum sativum</i>), Lupins (<i>Lupinus angustifolius</i>), Spurred Vetch (<i>Vicia monantha</i>), Vetch (<i>Vicia sativa</i>), Deadnettle (<i>Lamium amplexicaule</i>) Sowthistle (<i>Sonchus oleraceus</i>)	Up to 8 leaf	500 to 750 plus ADIGOR at 500 mL per 100 L water	

Crop	Weeds	Target Size	Product Rate (mL/ha)	Critical Comments
Wheat, Barley (GS12 to 32)	Lentils (<i>Lens culinaris</i>)	Up to 5 leaf	500 plus ADIGOR at 500 mL per 100 L water (<i>suppression</i>)	Under higher target densities or at larger growth stages, the lower rate will substantially reduce the biomass of lentils but may not achieve commercially acceptable levels of control.
			750 plus ADIGOR at 500 mL per 100 L water	
	Capeweed (<i>Arctotheca calendula</i>)	Up to 6 leaf	500 to 750 plus ADIGOR at 500 mL per 100 L water	Use the higher rate where the density of the target weed is high and/or the weeds are at more advanced growth stages. The higher rate should also be used when environmental conditions are marginal.
		Up to 8 leaf	750 to 1000 plus ADIGOR at 500 mL per 100 L water	
	Saffron Thistle (<i>Carthamus lanatus</i>)	Up to 6 leaf	750 to 1000 plus ADIGOR at 500 mL per 100 L water	
	Broadleaf Erodium (<i>Erodium botrys</i>) Common Storksbill (<i>Erodium cicutarium</i>)	Up to 4 leaf	750 to 1000 plus ADIGOR at 500 mL per 100 L water	Use the higher rate where the density of the target weed is high and/or the weeds are at more advanced growth stages. The higher rate should also be used when environmental conditions are marginal. Shading as a result of high densities of Erodium may mean that regrowth occurs from plants that were only partially treated.
	Bindweed (<i>Fallopia convolvulus</i>) Wireweed (<i>Polygonum aviculare</i>)	Up to 3 leaf	500 plus ADIGOR at 500 mL per 100 L water	Use the higher rate where the density of the target weed is high and/or the weeds are at more advanced growth stages. The higher rate should also be used when environmental conditions are marginal. Under low soil moisture conditions, control of Bindweed can be severely reduced.
Up to 6 leaf		750 to 1000 plus ADIGOR at 500 mL per 100 L water		

Crop	Weeds	Target Size	Product Rate (mL/ha)	Critical Comments
Wheat, Barley (GS12 to 32)	Shepherd's Purse (<i>Capsella bursa-pastoris</i>)	Up to 4 leaf	500 plus ADIGOR at 500 mL per 100 L water	Use the higher rate where the density of the target weed is high and/or the weeds are at more advanced growth stages. The higher rate should also be used when environmental conditions are marginal.
		Up to 8 leaf	750 plus ADIGOR at 500 mL per 100 L water	
	Spiny Emex/Double Gee (<i>Emex australis</i>)	Up to 2 leaf	500 plus ADIGOR at 500 mL per 100 L water	
		Up to 4 leaf	750 to 1000 plus ADIGOR at 500 mL per 100 L water	
	Chickweed (<i>Stellaria media</i>)	Up to 4 leaf	750 plus ADIGOR at 500 mL per 100 L water	Use the higher rate where the density of the target weed is high and/or the weeds are at more advanced growth stages. The higher rate should also be used when environmental conditions are marginal. Control may be reduced where coverage of target weeds is compromised. Partially affected Chickweed may recover if coverage is inadequate.
	Suppression of Fleabane (<i>Conyza bonariensis</i>)	Up to 4 leaf	750 to 1000 plus ADIGOR at 500 mL per 100 L water	Plant numbers will be reduced but some recovery may occur in larger plants under marginal soil moisture conditions. Efficacy will be maximised when Autumn germinating Fleabane are targeted and excellent coverage of the weed is achieved.
	Suppression of Bedstraw (<i>Gallium tricornatum</i>)	Up to 4 leaf	750 to 1000 plus ADIGOR at 500 mL per 100 L water	Use the higher rate where the density of the target weed is high and/or the weeds are at more advanced growth stages. The higher rate should also be used when environmental conditions are marginal.

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION

WITHHOLDING PERIODS

Harvest: NOT REQUIRED WHEN USED AS DIRECTED

Grazing: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 6 WEEKS AFTER APPLICATION

EXPORT TRADE ADVICE – TREATED CEREALS: Grain harvested from cereal crops treated with TALINOR may contain finite (measurable) residues of bicyclopyrone and may pose a risk to trade in situations where no residue tolerance (import tolerance) is established in the importing country or where residues in Australian commodities are likely to exceed a residue tolerance (import tolerance) established in the importing country. Before you use this product, you are advised to contact Syngenta and/or your industry body about any potential trade issues and their management. If you use this product and grain harvested from treated crops is destined for export, you are required to declare the use of TALINOR to buyers of the grain, when requested or when required by contract or trade terms.

GENERAL INSTRUCTIONS

TALINOR Herbicide is a foliar applied post-emergent herbicide containing the active ingredients bicyclopyrone, a Group H triketone herbicide, and bromoxynil, a Group C nitrile herbicide. TALINOR is predominantly taken up through leaf tissue, with very little absorption through plant roots and does not provide residual control of weeds that germinate after application. Bicyclopyrone causes the rapid breakdown of chlorophyll in leaf tissue, resulting in bleaching of leaf tissue. Bromoxynil blocks the activity of Photosystem II, leading to cessation of photosynthesis and destruction of leaf tissues. TALINOR should only be applied to weeds that are actively growing and not suffering stress, especially in the case of low soil moisture. In the event of application to stressed weeds, reduced efficacy may result and treated plants may recover. However, their biomass will be substantially reduced and their competitiveness will be lower.

Because of the contact nature of bicyclopyrone and bromoxynil, the efficacy of TALINOR is heavily dependent on good coverage of target weeds. The rapid speed of activity of TALINOR means that translocation is limited, with lower activity in areas of the plant not directly treated at application. As a result, when weeds are shaded due to large size, high densities or because of coverage from an advanced crop canopy, efficacy is likely to be reduced and treated plants may recover. However, their biomass will be substantially reduced and their competitiveness will be lower.

TALINOR efficacy will be maximised when applied early in the season (2 to 5 leaf crop growth stage) while shading of weeds by the crop canopy or from other weeds is minimised. A follow up application of another herbicide may be required if subsequent germinations occur.

In Queensland, Northern New South Wales and the Northern Ag Region of Western Australia, higher light intensity and warmer temperatures mean there is a greater risk of crop phytotoxicity, particularly in wheat. In these areas, applying TALINOR in the afternoon or at night, particularly where overnight minimum temperatures in the week prior to application are mild and frost-free, to crops that are growing rapidly will exacerbate this risk. Refer to the Crop Safety section for further detail.

Full details of application and environmental factors that can affect TALINOR efficacy and crop safety are listed below and should be reviewed before use.

Mixing

TALINOR is an emulsifiable concentrate that mixes readily with water. Fill the spray tank to one quarter full. Add TALINOR and continue adding water to make up to the final spray volume. Agitate while mixing and spraying.

When tank mixing, wettable powder or water dispersible granule formulations should be added to the tank first followed by suspension concentrates (flowables), water soluble salts then TALINOR or other emulsifiable concentrate formulations. Maintain thorough agitation during mixing and application. Agitate tank mixes vigorously if allowed to stand. Note: Tank mix spray solutions should NOT be left standing in the vat overnight.

Compatibility

TALINOR is compatible with Agritone* 750, Lontrel* 750 SG and Lontrel* (300 g/L). ***Always refer to registered plant back restrictions on the label of the tank mix partner.*** Refer to your local Syngenta representative for the most up to date information relating to the compatibility and crop safety of herbicide tank mixtures.

TALINOR must NOT be mixed with liquid urea ammonium nitrate (UAN) or ammonium sulphate fertilisers (either granular or liquid) under any circumstances.

As formulations of other manufacturers' products are beyond the control of Syngenta and water quality varies with location, all mixtures should be tested prior to mixing commercial quantities.

Surfactant/Adjuvant

It is recommended that TALINOR be applied with ADIGOR Spray Adjuvant at 500 mL/100L of spray water. Hasten Spray Adjuvant may also be used at a rate of 1000 mL/100L of spray water. Non-ionic surfactants and soya-lipid based adjuvants must NOT be used with TALINOR as a significant reduction in efficacy will occur.

Application

DO NOT apply by air.

DO NOT apply using a misting applicator.

TALINOR is sensitive to good coverage of the target weeds, so the highest water rate appropriate to the weed control scenario presented should be used. This is particularly important where coverage is already compromised due to shading of the target weeds, either through inter-weed shading or because of an advanced crop canopy.

Use a nozzle delivering spray quality in the medium spray range, with a minimum of 75L/ha of water volume up to 150L/ha.

Additionally, when targeting more advanced weeds, it is recommended that higher water rates are used, even where inter-weed or crop shading is minimal.

Crop Safety

DO NOT apply to durum wheat.

DO NOT apply to crops undersown with legumes.

Under some environmental conditions, crop phytotoxicity may be observed following the use of TALINOR. This is more likely to result in wheat than barley and presents as bleaching or yellowing of leaves, generally interveinal, that emerge in the period after spraying. The effect is transient and crop recovery, under good growing conditions, is rapid.

Use in northern growing regions (QLD, NNSW and the Northern Ag Region of Western Australia), where light intensity is greater is likely to increase the risk of crop phytotoxicity. However, under the following circumstances, the risk of phytotoxicity is greatly reduced;

1. Application early in the day - application in the morning reduces the severity and likelihood of crop damage.
2. When an application is made to a crop that has adequate soil moisture such that it is not stressed and is healthy. In particular, where a crop may have been suffering from moderate moisture stress, it is important to wait until useful rainfall has been received and the crop has recovered before making an application of TALINOR.
3. Cool minimum temperatures prior to application - moderate overnight temperatures will slow the rate of crop growth and allow recovery from stress conditions. Note however that low temperature, frosty conditions may compromise weed control and should be avoided.
4. Moderate maximum temperatures following application - avoid applying TALINOR if it is expected that temperatures will be warm in the 7 days following application, particularly if the crop is already well watered and growing rapidly.

Over application, due to boom overlap on headlands and at boom tips on adjacent passes of spraying equipment, is likely to increase both the likelihood and severity of crop damage. Care should be paid to ensure over application is minimized, particularly in northern growing regions.

Crop Rotation Recommendations

Minimum recropping intervals should be observed following the use of TALINOR. TALINOR is more rapidly degraded at higher soil pH, so carryover is more likely on acid soils.

Minimum rainfall or irrigation requirements apply for the stated recropping intervals to apply. Lower rainfall amounts may necessitate an extended recropping period. If patchy, light rainfall events occur with extended periods of dry weather between, sufficient soil moisture for effective breakdown of TALINOR may not be achieved, even if the minimum rainfall amount is achieved.

Plantback to Winter Crops and Pastures

Crop	TALINOR rate (mL/ha)	Minimum rainfall or irrigation required	Recropping interval
Wheat, barley, oats, triticale, canola, lupins, vetch, faba beans, lentils, field peas, sub-clover*, medic* and lucerne*	Up to 1200	250 mm	9 months

* Where TALINOR is applied at a rate of 1200 mL/ha on acid soils, seedling vigour reduction and reduced plant stand may occur. However, impacts on seedling vigour are expected to be transient and no long term impact is likely.

Areas that receive double rates, such as boom overlaps, may exhibit increased crop effect. Generally, this is a bleaching or yellowing of the crop and is expected to be transient but may be accompanied by a crop biomass reduction.

Plantback to Summer Crops and Pastures

Crop	TALINOR rate (mL/ha)	Minimum rainfall or irrigation required	Recropping interval
Maize, pigeon pea, cowpea, mungbean, adzuki bean, sorghum, cotton *, soybean *, sunflower *, safflower **	1200	150 mm	4 months

* Where TALINOR is applied at a rate of 1200 mL/ha, crop tolerance may be reduced if waterlogging occurs in the first 6 weeks after planting. However, phytotoxicity (in the form of bleaching or chlorosis) and crop biomass reductions are likely to be transient with full recovery expected and no impact on crop yield.

** Where TALINOR is applied at a rate of 1200 mL/ha, crop tolerance may be reduced if waterlogging occurs in the first 6 weeks after planting. Phytotoxicity (in the form of bleaching or chlorosis) and crop biomass reductions are possible along with minor reductions in crop yield.

Areas that receive double rates, such as boom overlaps, may exhibit increased crop effect. Generally, this is a bleaching or yellowing of the crop and is expected to be transient but may be accompanied by a crop biomass reduction.

Resistant Weeds Warning

GROUP	C	H	HERBICIDE
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TALINOR Herbicide contains members of the triketone (bicyclopyrone) and nitrile (bromoxynil) groups of herbicides. TALINOR works by inhibiting 4-hydroxyphenylpyruvate dioxygenase (4-HPPD) and photosynthesis at photosystem II in treated plants. For weed resistance management, this product is a Group H and Group C herbicide. Some naturally occurring weed biotypes resistant to this product and other Group H or Group C herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by this product or other Group H or Group C herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Syngenta Australia Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds. Advice as to strategies and alternative treatments that can be used should be obtained from your local supplier, consultant, local Department of Agriculture, Primary Industries Department or a Syngenta representative.

Resistance Management

Management of weed resistance to the Group H herbicides is important to maintain this critical Mode of Action (MoA) group, particularly for the management of multiple MoA resistant populations of Wild Radish. When using TALINOR, where practical, and particularly when targeting weed populations with developing resistance, the addition of another herbicide with a different MoA to TALINOR (Group H and C) should be considered. **Refer to your local Syngenta representative for the most up to date information relating to management of Group H herbicide resistance, or refer to the CropLife Australia Group H guidelines (www.croplife.com.au).**

DO NOT make more than one Group H based herbicide application per crop.

Management of weeds, particularly those suspected of already having developed herbicide resistance, with TALINOR should be a part of an Integrated Weed Management strategy designed around maximising control of weeds at all stages of their life cycle. The use of a diversity of herbicide Modes of Action, including TALINOR, should be considered to be one part of such a strategy. Additional, non-herbicidal, control practices should also be employed taking into account agronomic, mechanical and cultural techniques. **Refer to your local Syngenta representative for the most up to date information relating to Resistance Management or alternatively to the information available through the WeedSmart program.**

Integrated Pest Management

TALINOR Herbicide is not compatible with Integrated Pest Management.

PRECAUTION

DO NOT apply by air.

DO NOT apply using a misting applicator.

DO NOT use open mixing and loading equipment.

Re-entry Period: DO NOT enter treated areas for 16 days to perform scouting activities unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions or from spraying equipment which may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT.

Highly toxic to aquatic life. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight.

Returnable containers

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

Non-returnable containers

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

SAFETY DIRECTIONS

Harmful if swallowed. May irritate eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear

- cotton overalls, over normal clothing, buttoned to the neck and wrist
- elbow-length chemical resistant gloves.

Wash hands after use. After each day's use, wash gloves and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131 126. If swallowed, DO NOT induce vomiting. Give a glass of water.

SAFETY DATA SHEET

If additional hazard information is required, refer to the Safety Data Sheet. For a copy phone 1800 067 108 or visit our website at www.syngenta.com.au

Suspected of damaging the unborn child

DISCLAIMER

This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Syngenta's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Syngenta shall have no liability.

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