



The miracles of science™

DuPont™ Glean®

cereal herbicide

Technical Information

Active Constituent:
750 g/kg CHLORSULFURON

Pack Sizes:
500 g

GROUP	B	HERBICIDE
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CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

For the control of Annual (Wimmera) Ryegrass and certain broadleaved weeds in winter cereal crops as per Directions for Use table.

SAFETY DIRECTIONS

Avoid contact with eyes and skin. **DO NOT** inhale spray mist. Wash hands after use

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (ph 13 11 26). If swallowed, and if more than 15 minutes from a hospital induce vomiting, preferably using Ipecac Syrup APF. For further information refer to the Material Safety Data Sheet.

GENERAL INSTRUCTIONS

Glean® is a selective systemic herbicide absorbed by the foliage and roots. It is rapidly translocated and acts by inhibiting acetolactate synthase (ALS), an enzyme necessary for root and shoot growth in sensitive plants.

Prior to using Glean® careful consideration should be given to soil pH. As soil pH increases rate of breakdown decreases. Glean should not be used on soil pH 8.6 or higher as extended soil residual activity could adversely affect crop rotation options beyond normal intervals. Glean is intended for use on soils with a pH of 8.5 or lower.

Crops other than wheat, barley, oats, triticale and cereal rye can be extremely sensitive to low concentrations of GLEAN in the soil. See Crop Rotation Recommendations (page 3).

Best weed control is obtained when rainfall or sprinkler irrigation wets the soil to a depth of 5 to 7.5 cm within 4 weeks of application.

RESISTANT WEEDS WARNING

GROUP	B	HERBICIDE
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Glean® is a member of the sulfonylurea group of herbicides. Glean® has the inhibitor of the enzyme acetolactate synthase (ALS) mode of action. For weed resistance management Glean is a Group B herbicide. Naturally-occurring weed biotypes resistant to Glean® and other ALS inhibitor herbicides (Annual Ryegrass and some broadleaf weeds) are known to exist. They can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Glean® or other ALS inhibitor herbicides.

Annual Ryegrass biotypes resistant to diclofop-methyl and other "grass specific" herbicides are often also resistant to Glean. Before using Glean on a population resistant to "grass specific" herbicides, have a resistance test conducted to ensure that it is still susceptible to Glean.

Since the occurrence of resistant weeds is difficult to detect prior to use, DuPont accepts no liability for any losses that may result from the failure of Glean® to control resistant weeds.

To prevent, or at least minimise the risk of resistant weeds occurring, use Glean® in tank mixes (if appropriate) and/or rotations with herbicides having different modes of action effective on the same weed species. Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be taken to prevent seed set of these survivors.

DO NOT make more than one application of an ALS inhibitor herbicide to a crop, either pre-sowing incorporated by sowing or post crop and weed emergence.

If the user suspects that a ALS inhibitor-resistant weed is present, Glean® or other ALS inhibitor herbicides should not be used. Strategies to minimise the risk of herbicide resistance are available. Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local DuPont representative.

Pre-sowing incorporated by sowing

Avoid applying to dry sandy soils as rapid leaching may occur with early season rains. (WA only)

Before using rates greater than 15 g/ha on light to medium soils pH 7 to 8.5, seek further advice. (SA only)

Conventionally Sown Crops – on soils of pH less than 7 apply a spray just before sowing or in conjunction with the sowing operation. On soils of pH of 7 or greater it is not critical to time the spray just before sowing. Spray onto a non-ridged surface free of large clods. Use low profile 10 cm combine points for sowing. Sow at speeds of 10 kph or greater. Use light covering harrows at sowing. If applied to dry soil and sowing is to be delayed incorporate immediately after spraying to prevent loss by wind erosion.

Direct Drilled Crops – apply tank mixed with either Spray.Seed¹ or glyphosate in accordance with manufacturer's label recommendations.

Post Crop and Weed Emergence

Where treatment is delayed or where weeds are not actively growing due to adverse conditions results may be slow to appear and weeds may be only stunted or suppressed.

Wheat, Triticale and Cereal Rye – apply after crop emergence when weeds are small and actively growing (**Annual Ryegrass no more than 3 leaves**, refer to diagram on page 11; **Broadleaved weeds no more than 5 cm in height or diameter** (for Black Bindweed refer to specific recommendations).

Barley and Oats – apply between 2 leaf stage of crop (3 leaf stage - SA only) and early tillering when weeds are small and actively growing (**Annual Ryegrass no more than 3 leaves**, refer to diagram on page 11; **Broadleaved weeds no more than 5 cm in height or diameter** (for Black Bindweed refer to specific recommendations)).

Grazing Advice

Avoid grazing Glean[®] treated areas within 24 hours of application to optimise weed control. A nil withholding period is applicable for grazing Glean[®] treated areas.

Crop Safety

DO NOT apply Glean[®] to crops that are stressed by any cause (such as severe weather conditions, drought, waterlogging, excessive soil acidity or alkalinity, poor nutrient status, disease, nematode or insect damage) as crop injury may result. When treatment is followed by severe stress (such as drought, prolonged cold, waterlogging or frosty conditions) crop yellowing and growth retardation may occur. Crops normally recover without loss in yield. Disease, nematode or insect damage following application may also result in crop injury.

The use of Glean[®] on cereal varieties sown out of season may result in some yield suppression under stressed conditions (e.g. Aluminium/Manganese toxicity, waterlogging, frosts, etc).

Use of Glean[®] in furrow or flood-irrigated areas

Pre-sowing irrigation should be no closer than 10 days before application of Glean[®].

Post spraying irrigation should not be applied until 10 weeks after the application of Glean[®].

DO NOT furrow or flood-irrigate areas treated with Glean[®] if water logging or other stress factors will be induced.

DO NOT use in winter cereals undersown with legume pasture crops e.g. medics, clovers.

DO NOT apply Glean[®] to light, sandy ridges low in organic matter, as crop injury may occur.

The application of other sulfonylurea herbicides following Glean[®] is not recommended.

Consult your local DuPont Representative or local Department of Agriculture or Primary Industries for latest information relating to variety tolerance to Glean[®].

Barley/Oats: **DO NOT** apply Glean[®] before the two leaf stage (3 leaf stage SA only) of the crop.

Use of Glean[®] under waterlogged conditions may result in reduced barley yields. However, failure to spray under such conditions may result in an even greater yield reduction through weed competition and weed seed carryover.

DO NOT apply to Stirling barley

Wheat: **DO NOT** apply to varieties Miling or Cranbrook

Glean[®] may be used on Kulin on soils which are well drained, with adequate nutrient status (including trace elements), with low disease, nematode and insect damage potential and where soil pH is 5.5 - 7.5 (1:5, soil: water suspension method).

Where Glean[®] is used outside the above conditions then crop injury and/or reduced yield may result. Increased stem breakage may also occur.

DO NOT apply pre-sowing, incorporated by sowing to varieties Avocet and Durati.

DO NOT apply pre-sowing incorporated by sowing to variety Banks on soils of pH 5.5 or less.

The variety Vulcan may suffer some yield suppression on acid soils, particularly under stressed conditions (e.g. Aluminium/Manganese toxicity, waterlogging, frosts etc).

Crop Rotation Recommendations

Land previously treated with Glean® should not be rotated to other crops other than those listed in the following tables. Tolerance of other crops (grown through to maturity) should be determined on a small scale before sowing into larger areas. The Glean® treated area may be replanted to any of the specified crops after the interval indicated in the following tables:-

NB - THE TABLE BELOW APPLIES TO ALL STATES

MINIMUM RECROPPING INTERVAL (MONTHS AFTER APPLICATION)						
Soil pH*	0	3	6	9	12	18
6.5 or less	Triticale Wheat	Cereal Rye Canola <i>(Designated Imidazolinone herbicide tolerant Canola varieties only, such as Pioneer® 44C73 and 45C75)</i>	Oats	Barley	Canola/Rapeseed Subterranean Clover** Faba Beans Field Pea Linseed Lucerne Lupins Medics** Rapeseed Safflower	Maize Sorghum Soybeans Sunflower

NB - THE TABLES BELOW APPLY TO Qld, SA, WA & Tas ONLY

MINIMUM RECROPPING INTERVAL (MONTHS AFTER APPLICATION)						
Rainfall Requirement	0	3	9	15	18	22
	Minimum 700 mm					
Soil pH* 6.6 - 7.5	Triticale Wheat	Cereal Rye Canola <i>(Designated Imidazolinone herbicide tolerant Canola varieties only, such as Pioneer® 44C73 and 45C75)</i>	Barley Oats	Japanese Millet Maize Panicum Millet Sorghum Sunflower White French Millet	Cotton Soybeans	Canola/Rapeseed Faba Beans Field Pea Linseed Medics** Rapeseed Safflower Subterranean Clover**

MINIMUM RECROPPING INTERVAL (MONTHS AFTER APPLICATION)				
Rainfall Requirement	0	15	18	24 months or longer
	Minimum of 700 mm			
Soil pH* 7.6 - 8.5	Triticale Wheat	Japanese Millet Maize Panicum Millet Sorghum Sunflowers White French Millet	Barley Oats Cereal Rye	Rotate to crops other than Cereals (such as listed above) only if field test strip of the planned rotational crop has been successfully grown through to maturity in the previous season
8.6 and above	Glean is not recommended for use on soils of pH 8.6 & above.			

NB - THE TABLES BELOW APPLY TO NSW & Vic ONLY

MINIMUM RECROPPING INTERVAL (MONTHS AFTER APPLICATION)					
Soil pH*	0	3	9	22	26
6.6 - 7.5	Triticale Wheat	Cereal Rye Canola <i>(Designated Imidazolinone herbicide tolerant Canola varieties only, such as Pioneer® 44C73 and 45C75)</i>	Barley Oats	Canola/Rapeseed Subterranean Clover** Faba Beans Field Peas Linseed Lucerne Lupins Medics** Safflower	Maize Sorghum Soybeans Sunflower

MINIMUM RECROPPING INTERVAL (MONTHS AFTER APPLICATION)				
Soil pH*	0	3	18	
7.6 - 8.5	Triticale Wheat	Canola <i>(Designated Imidazolinone herbicide tolerant Canola varieties only, such as Pioneer® 44C73 and 45C75)</i>	Barley, Cereal Rye, Oats	Rotate to crops other than Cereals (such as listed above) only if field test strip of the planned rotational crop has been successfully grown through to maturity in the previous season
8.6 and above	Glean is not recommended for use on soils of pH 8.6 & above.			

* Soil pH is to be determined by Laboratory analysis using the 1:5 soil: water suspension method.

** Includes natural regeneration of subterranean clover and medics.

Spray Preparation

Glean® is a dry flowable formulation to be mixed with water and be applied as a spray. Partially fill the spray tank with water. Using a graduated measuring flask available from your supplier, measure the amount of Glean® required for the area to be sprayed. Tap the flask lightly until surface of Glean® is level. Before spraying calibrate equipment to determine the quantity of water necessary to uniformly cover the measured area to be treated. Add the correct amount of Glean® to the spray tank with the agitation system engaged. Top up to the correct volume with water. **THE MATERIAL MUST BE KEPT IN SUSPENSION AT ALL TIMES BY CONTINUOUS AGITATION.** (N.B. The measuring flask provided is graduated in grams of Glean® only. **DO NOT** use for measuring of other materials.

In tank mixes Glean® must be in suspension before adding the companion herbicide or surfactant.

For application of Glean® in liquid fertiliser, slurry the Glean® in water, then thoroughly mix the slurry into the liquid fertiliser. Check compatibility before mixing Glean® in fertiliser solutions. **DO NOT** add a surfactant.

Where prepared spray solutions have been allowed to stand, thoroughly reagituate before using.

Use of Surfactant/Wetting Agent

For post-emergence application, always add a non-ionic surfactant (1000 g ai/L) at 100 mL/100 L of final spray volume (0.1 % v/v).

The use of spraying oils is not recommended.

NOTE: DO NOT add a surfactant/wetting agent when Glean® is tank mixed with another product which already has a surfactant/wetting agent in the formulation.

Ground Spraying Equipment

Use a boom spray properly calibrated to a constant speed and rate of delivery to ensure thorough coverage and a uniform spray pattern. Avoid overlapping and shut off spray booms while starting, turning slowing or stopping as injury to the crop may result. Apply a minimum of 30 L prepared spray/ha.

Aerial Application

Apply a minimum of 20 L/ha water. Avoid spraying in still conditions and in winds likely to cause drift onto adjacent sensitive crops. Avoid spraying where drift can go onto areas likely to be sown to sensitive crops - see Crop Rotation Recommendations, page 3. Turn off spray boom whilst passing over creeks and dams.

Sprayer Cleanup

To avoid subsequent injury to crops other than wheat, triticale, barley, oats, or cereal rye, immediately after spraying thoroughly remove all traces of Glean® from mixing and spray equipment as follows:

1. Drain tank, then flush tank, boom and hoses with clean water for a minimum of 10 minutes.
2. Fill the tank with clean water then add 300 mL household chlorine bleach (containing 4 % chlorine) per 100 L of water. Flush through boom and hoses then allow to sit for 15 minutes with agitation engaged, then drain.
3. Repeat Step 2.
4. Nozzles and screens should be removed and cleaned separately. To remove traces of chlorine bleach, rinse the tank thoroughly with clean water and flush through hoses and boom.

CAUTION: DO NOT use chlorine bleach with ammonia. All traces of liquid fertiliser containing ammonia, ammonium nitrate or ammonium sulphate must be rinsed with water from the mixing and application equipment before adding chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odour that can cause eye, nose, throat and lung irritation. **DO NOT** clean equipment in an enclosed area.

Compatibility

Glean® is compatible with the pre-plant herbicides Spray.Seed¹ 250 and Roundup³ (i.e. glyphosate), paraquat, trifluralin.

Glean® does not control Wild Oats. However, Glean is compatible with Wild Oat herbicides Avadex³ Xtra, Mataven² -L.

Glean® is compatible with the commonly used broadleaf herbicides 2,4 D amine and 2,4-D ester, bromoxynil, MCPA (and bromoxynil/MCPA mixtures), dicamba, diuron, Barracuda⁴, Giant⁴, Jaguar⁴, Lexone[®] DF[®], Lontrel⁵, Tigrex⁴ and Paragon².

Glean® is compatible with the insecticides chlorpyrifos, dimethoate, deltamethrin and trifluralin.

NOTE: DO NOT add a surfactant/wetting agent when Glean® is tank mixed with another product which already has a surfactant/wetting agent in the formulation.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS.

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

DO NOT apply or drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots.

DO NOT allow drainage water from irrigated areas treated with Glean® to enter regional drains, local waterways or river systems.

DO NOT apply drainage water from irrigated areas treated with Glean® onto sensitive crops.

DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray to drift onto nearby susceptible plants, adjacent crops, crop lands or pastures.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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. Store in a locked room or place away from children, animals, food and feedstuffs, seed and fertilisers.

DO NOT re-use container. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. **DO NOT** dispose of undiluted chemical on-site. If recycling, replace cap and return clean containers to recycler or designated collection point.

STORAGE AND DISPOSAL (continued)

If not recycling break, crush, or puncture and bury empty containers in a local authority landfill. If not available bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

IN A MEDICAL EMERGENCY CALL
1800 674 415 All hours

NOTICE TO BUYER

To the extent permitted by law all conditions and warranties and statutory or other rights of action which buyer or any other user may have against DuPont or Seller are hereby excluded. DuPont hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information or advice provided by DuPont or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. DuPont's liability shall in all circumstances be limited to replacement of the product or a refund of the purchase price paid therefore.

APVMA Approval number: 31628/0704

DIRECTIONS FOR USE

RESTRAINTS

DO NOT store a suspension of Glean® for more than 2 days otherwise significant breakdown will occur.

DO NOT store tank mixes of Glean® with other materials for more than 24 hours as product breakdown may occur.

DO NOT spray for post emergent weed control if rainfall is expected within four (4) hours.

USE METHOD – PRE-SOWING INCORPORATED BY SOWING

Grass weeds

CROP/SITUATION	WEEDS CONTROLLED	STATE(S)	RATE g/ha			CRITICAL COMMENTS
			Soil Type			
			Light to Medium Soils	Heavy Soils		
			Soil pH			
			Less than 7	7 - 8.5	8.5 or less	
Wheat and Triticale only	Annual (Wimmera) Ryegrass (<i>Lolium rigidum</i>)	NSW, Vic, SA, WA only	20	15 or 20*	20	* Use the higher rate when paddock history suggests a high weed population can be expected. NOTE:- Refer to General instructions on page 1 for optimum application timing and conditions.

CROP/SITUATION	WEEDS CONTROLLED	STATE(S)	RATE g/ha	CRITICAL COMMENTS	
Wheat and Triticale only	Annual Phalaris (<i>Phalaris paradoxa</i> , <i>Phalaris minor</i>)	NSW only	20 + 800 mL/ha Trifluralin	If possible, spray and incorporate into the soil in one operation. If this is not possible, incorporation should take place within four (4) hours of spraying. Delay may cause inferior weed control. Use only trifluralin products with an active level of 480 g/L.	
	Barley grass (<i>Hordeum leporinum</i>)	NSW and Tas only			
	Silvergrass (<i>Vulpia spp.</i>)	Tas only			
	Brome grass (<i>Bromus spp.</i>) (Suppression only)	NSW, Vic, SA, WA, Tas only	20		Gives suppression only if populations are 20 plants/m ² or less.
	Paradoxa grass (<i>Phalaris paradoxa</i>)	Nth NSW (Soil pH > 7.5) and Qld only			Apply to dry soil before the sowing rain. Mechanical incorporation before the sowing rains is not necessary.

USE METHOD – PRE-SOWING INCORPORATED BY SOWING

Broadleaf weeds

CROP/SITUATION	WEEDS CONTROLLED	STATE(S)	RATE g/ha	CRITICAL COMMENTS
Wheat and Triticale only	African Turnip weed (<i>Sisymbrium thellungii</i>)	NSW and Qld only	20	
	Amsinckia/ Yellow Burrweed (<i>Amsinckia spp.</i>)	NSW, Vic, SA, WA only	15	
	Ball Mustard (<i>Neslia puniculata</i>)	SA only		
	Black Bindweed/Climbing Buckwheat (<i>Fallopia convolvulus</i>)	Qld only	20	Apply to dry soil before the sowing rain. Mechanical incorporation before the sowing rains is not necessary.
	Cape Tulip (<i>Homeria spp.</i>)	WA, SA, Vic only		
	Capeweed (<i>Arctotheca calendula</i>)	NSW, Vic, SA, WA, Tas only		On acid soils pH 5.5 or less this product will give a shorter period of control in wet years.
	Charlock (<i>Sinapis arvensis</i>)	Vic, SA, Tas only	15	
	Common Iceplant (<i>Mesembryanthemum crystallinum</i>)	SA only		
	Corn Gromwell/Sheepweed/White Ironweed (<i>Buglossoides arvensis</i>)	Qld, NSW, Vic, SA, WA only	20	
	Deadnettle (<i>Lamium amplexicaule</i>)	All States	15 or 20	Use the higher rate when paddock history suggests a high weed population can be expected
	Docks (<i>Rumex spp.</i>)	NSW, Vic, SA, WA, Tas only	20	
	Fat-hen (<i>Chenopodium album</i>)	NSW, Tas only		
	Fumitory (<i>Fumaria spp.</i>)	NSW, Vic, SA, WA, Tas only	15 or 20	Use the higher rate when paddock history suggests a high weed population can be expected
	Guildford grass/Onion grass (<i>Romulea rosea</i>)	WA, SA, Vic only	15	
	Indian Hedge Mustard (<i>Sisymbrium orientale</i>)	All States		
	King Island Melilot (<i>Melilotus indicus</i>)	Vic, SA only		
	Lincoln weed (<i>Diplotaxis tenuifolia</i>)	SA only		
	Loosestrife	Vic only		
	Mintweed (<i>Salvia reflexa</i>)	Qld and NSW only	20	
	Mouse-ear Chickweed (<i>Cerastium spp.</i>)	NSW, Vic, SA, WA, Tas only	15	
	New Zealand Spinach (<i>Tetragonia tetragonoides</i>)	Qld only	20	
	Paterson's Curse/Salvation Jane (<i>Echium plantagineum</i>)	NSW, Vic, SA, WA, Tas only	15	
	Pimpernels (<i>Anagallis arvensis</i>)	NSW, Vic, SA, Tas only		
	Prickly Lettuce/Whip Thistle (<i>Lactuca serriola</i>)	Vic, SA only	20	
	Rough Poppy (<i>Papaver hybridum</i>)	NSW, Vic, SA, WA, Tas only	15 or 20	Use the higher rate when paddock history suggests a high weed population can be expected
	Saffron Thistle (<i>Carthamus lanatus</i>) (Suppression only)	Qld, NSW, Vic, SA, Tas only	20	

USE METHOD – PRE-SOWING INCORPORATED BY SOWING (Continued)

Broadleaf weeds

CROP/SITUATION	WEEDS CONTROLLED	STATE(S)	RATE g/ha	CRITICAL COMMENTS
Wheat and Triticale only	Saltbush (<i>Atriplex muelleri</i>)	Qld and NSW only	20	
	Shepherd's Purse (<i>Capsella bursa-pastoris</i>)	NSW, Vic, SA, WA Tas only	15 or 20	Use the higher rate when paddock history suggests a high weed population can be expected
	Slender Celery (<i>Apium leptophyllum</i>)	Qld and NSW only	20	
	Slender Thistle (<i>Carduus tenuiflorus</i>)	Tas only		
	Soursob (<i>Oxalis pes-caprae</i>)	NSW, Vic, SA only	15	Apply only to soils of pH 7.5 or above. Apply after majority of Soursobs have emerged and leave soil undisturbed for 1-4 weeks prior to cultivation or sowing. The most effective and reliable control is achieved with early post-emergence applications (EPE) after crop and weed emergence.
	Spear Thistle (<i>Cirsium vulgare</i>)	Tas only	20	
	Stemless Thistle (<i>Onopordum acaulon</i>)	SA only	15 or 20	Use the higher rate when paddock history suggests a high weed population can be expected
	Storksbill/Wild Geranium (<i>Erodium spp.</i>)	Vic, SA, WA, Tas only	15	
	Three Cornered Jack(s)/ Doublegee/ Spiny Emex (<i>Emex australis</i>)	NSW, Vic, SA, WA only	20	
	Tree Hogweed (<i>Polygonum patulum</i>)	Vic, SA only		
	Turnip weed (<i>Rapistrum rugosum</i>)	Qld and SA only	15	
	Wireweed/Hogweed (<i>Polygonum aviculare</i>)	All States	15 or 20	Use the higher rate when paddock history suggests a high weed population can be expected
Wild Turnip (<i>Brassica tournefortii</i>)	NSW, Vic, SA, WA and Tas only	15		

USE METHOD – POST CROP AND WEED EMERGENCE

Grass weeds

CROP/SITUATION	WEEDS CONTROLLED	STATE(s)	RATE g/ha			CRITICAL COMMENTS
			Soil Type			
			Light to Medium Soils	Heavy Soils		
			Soil pH			
			Less than 7	7 - 8.5	8.5 or less	
Wheat, Barley, Oats, Triticale and Cereal Rye only	Annual (Wimmera) Ryegrass (<i>Lolium rigidum</i>)	NSW, Vic, SA, WA only	20 or 25*	15 or 20*	20 or 25*	Use the higher rate under heavy weed pressure. Apply no later than the 3 leaf stage of Annual Ryegrass. Application of Glean® to Annual Ryegrass leaf or greater with water volumes less than 5 L/ha may result in reduced efficacy.

USE METHOD - POST CROP AND WEED EMERGENCE

Broadleaf weeds

CROP/SITUATION	WEEDS CONTROLLED	STATE(S)	RATE g/ha	CRITICAL COMMENTS
Wheat, Barley, Oats, Triticale and Cereal Rye only	African Turnip weed (<i>Sisymbrium thellungii</i>)	NSW and Qld only	20	Apply at cotyledon to 4 leaf stage.
	Amsinckia Yellow Burrweed (<i>Amsinckia spp.</i>)	NSW, Vic, SA, WA only	15	
	Ball Mustard (<i>Neslia puniculata</i>)	SA only		
	Bifora Carrot weed (<i>Cotula australis</i>)		25	
	Black Bindweed/Climbing Buckwheat (<i>Fallopia convolvulus</i>)	Qld and NSW only	20	Apply at cotyledon to 2 leaf stage of weed.
	Cape Tulip (<i>Homeria spp.</i>)	WA, SA, Vic only		
	Charlock (<i>Sinapis arvensis</i>)	NSW, Vic, SA, Tas only	15	
	Corn Gromwell/ Sheepweed/White Ironweed (<i>Buglossoides arvensis</i>)	NSW, Vic, SA, WA only	20	Apply at cotyledon to 2 leaf stage. If applied at a later stage only suppression will occur.
	Deadnettle (<i>Lamium amplexicaule</i>)	Qld, NSW, Vic, SA, Tas only	15 or 20	Use the higher rate under heavy weed pressure.
	Docks (<i>Rumex spp.</i>)	Vic, SA, WA, Tas only	15	
	Fat-hen (<i>Chenopodium album</i>)	NSW, Tas only	20	
	Fumitory, Densflower (<i>Fumaria densiflora</i>)	NSW, Vic, SA, WA, Tas only	20	Apply at cotyledon to 2 leaf stage.
	Guildford grass/Onion grass (<i>Romulea rosea</i>)	WA, SA, Vic only	15	
	Hoary Cress (<i>Cardaria draba</i>)	Vic, SA, Tas only	20	Apply when plants are fully emerged.
	Lincoln weed (<i>Diplotaxis tenuifolia</i>)	SA only		
	Matricaria (<i>Matricaria matricarioides</i>)	WA, Tas only		
	Mintweed (<i>Salvia reflexa</i>)	Qld and NSW only		Apply at cotyledon to 4 leaf stage.
	Mouse-ear Chickweed (<i>Cerastium spp.</i>)	NSW, Vic, SA, WA, Tas only	15	
	Mustards (<i>Sisymbrium spp.</i>)	All States	15	
	New Zealand Spinach (<i>Tetragonia tetragonoides</i>)	Qld only	20	
	Paterson's Curse/Salvation Jane (<i>Echium plantagineum</i>)	NSW, Vic, SA, WA, Tas only	15	
	Pimpernels (<i>Anagallis arvensis</i>)	NSW, Vic, SA, Tas only		
	Prickly Lettuce/Whip Thistle (<i>Lactuca serriola</i>)	Vic, Tas only	20	
	Rough Poppy (<i>Papaver hybridum</i>)	NSW, Vic, SA, WA, Tas only		
	Saltbush (<i>Atriplex muelleri</i>)	Qld and NSW only		Apply at cotyledon to 4 leaf stage.
	Shepherd's Purse (<i>Capsella bursa-pastoris</i>)	NSW, Vic, SA, WA, Tas only		
	Slender Celery (<i>Apium leptophyllum</i>)	Qld and NSW only		Apply at cotyledon to 4 leaf stage.
	Soursob (<i>Oxalis pes-caprae</i>)	NSW, Vic, SA, WA only		Apply when the majority of Soursobs have emerged.

USE METHOD - POST CROP AND WEED EMERGENCE

Broadleaf weeds (Continued)

Crop/Situation	Weeds Controlled	State(s)	Rate g/ha	Critical Comments
Wheat, Barley, Oats, Triticale and Cereal Rye only	Spear Thistle (<i>Cirsium vulgare</i>)	Tas only	20	Use the higher rate under heavy weed pressure. A follow-up spray with a suitable herbicide may be necessary to control subsequent germinations.
	Stagger weed (<i>Stachys arvensis</i>)	Qld, NSW, WA, Tas only		
	Stemless Thistle (<i>Onopordum acaulon</i>)	Vic only	25	
	Storksbill/Wild Geranium (<i>Erodium spp.</i>)	Vic, SA, WA, Tas only	15	
	Tree Hogweed (<i>Polygonum patulum</i>)	Vic only	20	
	Turnip weed (<i>Rapistrum rugosum</i>)	Qld, NSW, SA only	15	
	Wild Radish (<i>Raphanus raphanistrum</i>)	All States	15 or 20	
	Wild Turnip (<i>Brassica tournefortii</i>)	NSW, Vic, SA, WA, Tas only	15	
Wireweed/Hogweed (<i>Polygonum aviculare</i>)	All States	20		

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

WITHHOLDING PERIODS

NOT REQUIRED WHEN USED AS DIRECTED

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