



Company Name: SYNGENTA AUSTRALIA PTY LTD
Product Name: REGLONE NON-RESIDUAL HERBICIDE
APVMA Approval No: 46534/105980



Label Name:	REGLONE NON-RESIDUAL HERBICIDE
Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	200 g/L DIQUAT AS DIQUAT DIBROMIDE MONOHYDRATE
Mode of Action:	GROUP L HERBICIDE
Statement of Claims:	For pre-harvest crop desiccation and the control of a wide range of broadleaf weeds in certain crops as per Directions for Use. For application through aircraft and ground equipment.
Net Contents:	1000L 100L 200L 20L 5L
Restrains:	Restrains DO NOT spray when weeds are under drought stress or when covered with dust or soil. DO NOT apply with misting machines or CDA applicators. DO NOT USE TREATED WATER FOR HUMAN CONSUMPTION, LIVESTOCK WATERING OR IRRIGATION PURPOSES FOR 10 DAYS AFTER APPLICATION
Directions for Use:	See attached document. Proposed use (Suppression of Wild Radish in Wheat) is on page 4. This section contains file attachment. File Name: 160129 Reglone Directions For Use Table V2.pdf

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Withholding Periods:	<p>WITHHOLDING PERIODS</p> <p>Grazing: DO NOT GRAZE OR CUT SPRAYED VEGETATION FOR STOCK FOOD FOR 1 DAY AFTER APPLICATION</p> <p>Harvest: Cotton, Dry Beans, Dry Peas, Mung Beans, Asparagus, Hops, Orchards and Vineyards, Row Crops, Vegetables and Market Gardens, Oats, Wheat and Winter Cereals: NOT REQUIRED WHEN USED AS DIRECTED</p> <p>Lentils, Chickpeas, Faba Beans: DO NOT HARVEST FOR 2 DAYS AFTER APPLICATION</p> <p>Pigeon Peas, Canola, Sunflower, Soya Beans, Sugarcane: DO NOT HARVEST FOR 4 DAYS AFTER APPLICATION</p> <p>Poppies: DO NOT HARVEST FOR 2 DAYS AFTER APPLICATION</p> <p>Potatoes: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION</p> <p>Rice: DO NOT HARVEST FOR 5 DAYS AFTER APPLICATION</p> <p>Sweet Potatoes: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION</p>
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Trade Advice:	<p>EXPORT OF TREATED PRODUCE</p> <p>Growers should note that MRLs or import tolerances do not exist in all markets for edible produce treated with REGLONE Non-Residual Herbicide. If you are growing edible produce for export, please check with Syngenta Crop Protection Pty Limited for the latest information on MRLs and import tolerances BEFORE using REGLONE Non-Residual Herbicide.</p>
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General Instructions:	<p>GENERAL INSTRUCTIONS</p> <p>Uses REGLONE is an aqueous solution of diquat, a non-volatile herbicide with unique properties. It very quickly kills green growth with which it comes into contact and is particularly effective against broadleaf weeds. It is inactivated on contact with the soil and crop roots and seeds below the soil remain unharmed. It can be safely applied around bushes and trees which have no green bark. It is non-volatile, easily mixed with water and active at low concentrations.</p> <p>Crop Safety An application of REGLONE to Wheat for the post-emergent control of Wild Radish can result in severe necrosis of the crop leaves. This effect will be most pronounced if REGLONE is applied in the following circumstances:</p> <ol style="list-style-type: none"> 1. Application late in the day, just before dusk. 2. Application on cloudy days, with low light intensity. 3. Application to an advanced crop. <p>Application earlier in the day, in sunny conditions and to a younger crop will reduce the severity of necrosis and phytotoxicity that occurs. Given average growing conditions, the crop will recover from injury symptoms within 21 to 28 days of application. The transient necrosis that is caused to the crop by REGLONE may assist in improving overall Wild Radish control by reducing shading of the target weeds from the crop canopy.</p> <p>Mixing Add the required quantity of REGLONE to water in the spray tank and agitate to give even mixing. Agitate again if left standing. Use clean water only, as suspended soil particles in dirty water will interfere with herbicidal action.</p> <p>Wetting agent REGLONE contains no wetting agent, and a non-ionic wetting agent must be added to the spray mixture unless otherwise specified. Add Agral at the rate of 200 mL/100 L or BS1000 at 160 mL/100 L of prepared spray unless otherwise specified.</p>
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Application
For best results an even and complete coverage and good penetration of the spray into the target foliage is necessary. Best results will be obtained when application is made in dull

weather or at the end of the day. REGLONE is rapidly absorbed and is not affected by rain falling shortly after application.

Application Rates

Use the higher rates specified in the directions for use for dense or weedy crops. For application to seedling weeds REGLONE is generally recommended at 1.4 L/ha and Gramoxone 250 Herbicide at 1.2 L/ha. Use REGLONE at 2.8 to 4 L/ha and Gramoxone 250 at 1.6 to 3.2 L/ha when weeds are at the older stages of growth. Gramoxone 250 is preferred where grasses are dominant and REGLONE where there are mainly broadleaf weeds.

Boom Spraying

A boomsprayer fitted with flat fan nozzles is preferred to ensure even coverage and to minimise drift. The boom should be set at sufficient height above the crop to provide a complete double overlap of the flat spray pattern. Spray drop arms on booms are useful for dense crops such as potatoes. A minimum spray volume of 100 L/ha is recommended. Aim for a spray quality in the fine to medium range, ie a VMD droplet size of 200 to 250 μm . Generally a flat fan nozzle operated at 200 to 300 kPa is preferred.

High Volume Spot Spraying

Hand held equipment use 250 mL of product per 100 L of water and spray to visible wetness (about 700 to 1000 L/ha). Use 50 mL product plus 30 mL Agral per 15 L knapsack.

Aerial Application

Flying height, pressure, nozzle size and positioning on the aircraft should be such as to minimise spray drift. Apply 30 to 60 L of spray per hectare. Avoid spraying in high winds or under temperature inversion conditions. Wash any spillage during filling of the aircraft and make sure there are no leaks in the spraying system. Inspect the aircraft regularly for signs of corrosion and ensure the paint work is in good condition.

Caution - Use By Aircraft

Although this product is no different in drift behaviour from other chemicals, it has a rapid spotting effect on green foliage and, as with all herbicides, special care must be taken to avoid drift onto adjacent crops. Aircraft operators must not apply during periods of thermal (temperature) instability, and should avoid wind conditions and flying heights conducive to drift.

Weed Control in Row Crops, Vegetables and Market Gardens

Pre-Planting and Pre-Crop Emergence

To control weeds in seed beds before sowing, or post-sowing pre-crop emergence, apply as a blanket spray with this product using boom spray equipment or knapsack sprayers.

Post-Emergence Inter-Row Weed Control

Use shielded nozzles for rapid control of weeds in inter-row spaces of row crops, after crop seedlings have emerged, or when transplanted crops are established. Direct the spray so that it does not touch the crop.

Pre-Harvest Crop Desiccation

Green crop foliage and weeds can seriously interfere with harvesting operations of a number of crops. This product can be used to facilitate harvesting by desiccating weeds, accelerating the drying of crops and reducing the moisture content of seeds. Drying costs are reduced, harvesting delays and associated risks avoided.

Warning

Markers: If possible fixed markers should be used. Human markers are not recommended unless flaggers are protected by engineering controls such as vehicles with cabs.

Resistance Warning:

REGLONE Non-Residual Herbicide herbicide is a member of the bipyridyl group of herbicides. The product has the photo-synthesis at photosystem I mode of action. For weed resistance management, the product is a Group L herbicide. Some naturally occurring weed biotypes resistant to the product and other Group L herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are

	<p>used repeatedly. These resistant weeds will not be controlled by this product or other Group L herbicides.</p> <p>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.</p>
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Protections:	<p>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.</p> <p>PROTECTION OF LIVESTOCK Domestic pets and poultry - keep away from treated areas. Low hazard to bees. No special precautions are required.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or waterways with the chemical or used containers.</p>
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Storage and Disposal:	<p>Store in the closed, original container in a dry, cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. Store in a locked room or a place away from children, animals, food, feedstuffs, seed and fertilisers.</p> <p>For 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 Local, State or Territory government regulations. DO NOT burn empty containers or product.</p> <p>For returnable containers Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p>
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Safety Directions:	<p>Very dangerous. Poisonous if absorbed by skin contact, inhaled or swallowed. Will irritate the eyes, nose, throat and skin. Avoid contact with eyes and skin. Do not inhale spray mist. When preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves, face shield or goggles and half facepiece respirator or disposable respirator.</p> <p>If clothing becomes contaminated with product or wet with spray remove clothing immediately. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use, wash gloves and face shield or goggles, respirator and if rubber wash with detergent and warm water and contaminated clothing.</p>
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First Aid Instructions:	<p>FIRST AID If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131 126. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.</p>
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First Aid Warnings:	None
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DIRECTIONS FOR USE**PRE-HARVEST CROP DESICCATION**

Crop	States	Rate ^Δ	Critical Comments	
Cotton Short stapled varieties only	Qld, NSW, WA only	2 to 3 L/ha ^Δ or 700 mL/ha ^Δ plus 16.5 L/ha Leafex*	Apply when 85% of the bolls are open and remaining bolls are mature. REGLONE can damage green bolls.	
Dry Beans, Dry Peas, Lentils, Chickpeas, Faba Beans	All States	2 to 3 L/ha ^Δ	Spray as soon as the crop has reached full maturity. Helps overcome slow and uneven ripening and weed problems at harvest.	
Linseed	All States	2 to 3 L/ha ^Δ	Spray when the majority of seed heads are mature - 90 to 95% of seed heads have changed from yellow to brown and the seeds rattle inside the bolls. Desiccation reduces the period from maturity to harvest, particularly under wet or humid conditions.	
Lupins	All States	2 to 3 L/ha ^Δ	Spray as soon as the crop has reached full maturity. Helps overcome slow and uneven ripening and weed problems at harvest.	
Mung Beans	All States	2 to 3 L/ha ^Δ	Apply when 80 to 90% of pods are black or brown. Desiccation of weeds and foliage aids timely and efficient harvesting, reduces harvester wear and tear but can increase harvest losses. Harvest 2 to 5 days after spraying.	
Perennial Legume Seed Crops	All States	1.5 to 3 L/ha ^Δ	<p>Lucerne: Spray when 60 to 70% of the pods are brown/bluish and the seeds are yellow/brown and easily released from the pods.</p> <p>Red Clover: Spray when majority of seed heads are brown and the seed is purple.</p> <p>White Clover: Spray when majority of seeds are hard and yellow.</p>	The use of REGLONE enables direct harvesting instead of cutting and windrowing and may result in higher seed quality. Harvest 3 to 4 days after spraying.
Pigeon Peas	All States	2 to 3 L/ha ^Δ	Spray as soon as the crop has reached full maturity	
Poppies	Tas only	3 to 4 L/ha ^Δ	Spray after the poppies have reached the stripy capsule stage. Helps overcome slow and uneven ripening and weed problems at harvest.	
Potato Haulm desiccation	All states	3 to 4 L/ha ^Δ	Apply as soon as crop is ready to harvest. Do not apply during drought periods, particularly when the tops will wilt during the day. In such conditions wait at least 3 days after the soil has been well moistened by rain or irrigation. Leaf kill is rapid following spraying and usually complete within 4 days. Stem kill may take 10 to 14 days. Lift when desiccation is complete but where possible wait for 14 days after spraying to allow skin to harden off. Use high water volumes to obtain coverage of dense haulm. Regrowth may occur if seed crops are desiccated early.	
Ground stored Pre-harvest weed control		1.5 L/ha ^Δ plus 1.2 L/ha Gramoxone® 250	To remove weed growth and facilitate digging, spray about 7 days prior to harvest. Where digging has been postponed and tubers stored in the ground often for a lengthy period, weed growth can be heavy and impede mechanical diggers unless removed.	
Canola	All States	1.5 to 3 L/ha ^Δ	Spray when 70% of the pods are yellow and the seeds are brown/ bluish and pliable. Canola ripens unevenly and is prone to pod shatter and seed loss. Direct harvest 4 to 7 days after spraying.	
Rice	All States	2 to 3 L/ha ^Δ	Spray when the grain is mature - not more than 2 to 3% of the grain is still at the milky stage and the grain moisture content must be less than 25%.	
Sorghum	All States	2 to 3 L/ha ^Δ	Spray as soon as the seed is mature and the moisture content about 25%. REGLONE will advance harvest and reduce seed losses due to differential ripening, seed shedding and birds.	
Soya Beans	All States	2 to 3 L/ha ^Δ	Spray when 80% of the pods are yellow/brown and the seeds are ripe - yellow and pliable. Desiccation of weeds and foliage aids timely and efficient harvesting, minimises cost and increases yields. Harvest 4 to 7 days after spraying.	

Crop	States	Rate ^Δ	Critical Comments
Sugarcane	Qld and NSW only	2 to 3 L/ha ^Δ	Spray all accessible faces a few days prior to burning to a depth of about 30 metres. The sprayed cane and weed growth quickly dries out and ensures a good burn and removal of trash prior to harvest.
		High volume hand spraying 200 mL ^Δ /200L water	Spray to visible wetness.
Sunflowers	All States	2 to 3 L/ha ^Δ	Spray when the seed is mature, seed moisture 35% and below, kernel full and firm, the disc spongy when broken, florets loose and bracts browning off. Harvesting can commence as soon as vegetative parts of crop are desiccated, usually 7 to 14 days after spraying.
Sweet Potatoes	All States	3 to 4 L/ha ^Δ	Apply 2 weeks prior to harvest.

GENERAL WEED CONTROL

Crop	Weeds	States	Rate ^Δ	Critical Comments
Aquatic areas	Duck Weeds, Red Azolla, Water Hyacinth, Salvinia, Marsilea, Water Lilies, Water Lettuce	All states	5 to 10 L/ha	Apply as an overall spray wetting foliage thoroughly. Clear water is necessary for best results as suspended soil particles interfere with herbicidal action. Use the higher rate for heavy infestations or for deep or dirty water. A repeat application 7 to 14 days later may be necessary for control of dense infestations. Oxygen depletion of decaying weeds may occur, therefore not more than ¼ of the area should be treated at once to ensure adequate oxygen supply for fish.
			400 mL/ha plus 150 mL Agral [®] / 100 L water	Small areas: Spray to wet weeds thoroughly. About 1 mL of product should be sufficient to treat about 1 m ² .
	Cattail Pond Weeds	5 L/ megalitre water	Apply by injection below the surface or as a surface spray.	
Asparagus	Broadleaf weeds	All states	1.4 L/ha plus 800 mL Agral in 400 L water	Apply to control seedling weeds before spears have emerged.
Hops	Annual broadleaf and grass weeds	Vic, Tas only	700 mL to 1.4 L/ha ^Δ may be mixed with 1.2 to 1.6 L/ha Gramoxone 250 and/or 1.1 kg Gesatop [®] Granules	Apply as a directed inter-row spray prior to crop emerging from winter dormancy, using a minimum of 250 L/ha spray volume to ensure good and even coverage of weeds.
Infested Areas	Cotton Thistle (<i>Onopordum acanthium</i>)	Tas only	300 mL/ha plus 150 mL Agral in 100 L water	Spot spray at the rosette stage before the centre shoot is 15 cm tall. The spray should be applied to give complete wetting of the leaf surface. DO NOT use a lower rate or treat at a later growth stage.
	Saffron Thistle	All states	2.8 L/ha plus 1 L Agral in 200 L water	Apply as an overall treatment to prevent seeding.
			100 mL plus 70 mL Agral / 15 L knapsack	Alternatively spot spray on the same basis.

Crop	Weeds	States	Rate ^Δ	Critical Comments	
Lucerne	Capeweed and <i>Erodium</i> spp.	All states	350 mL/ha ^Δ in 200 L water	Early autumn application	Heavy grazing is necessary to reduce Lucerne to 2 cm in height before spraying.
			700 mL/ha ^Δ in 200 L water	Late winter application	
Oil Seed Poppies	Weed control	Tas only	300 mL to 1.5 L/ha	Use in accordance with recommendations made by Department of Primary Industries or the poppy contracting company. DO NOT add Agral or any other wetting agent to the spray solution.	
Orchards, Vineyards	Capeweed	All states	1.5 L/ha plus 1.4 L Agral in 700 L water plus 1.6 L/ha Gramoxone 250	Apply as a directed spray under trees or vines. Under most conditions Gramoxone 250 at 1.6 to 3.2 L/ha or Spray.Seed [®] 250 at 2.4 to 3.2 L/ha will give effective control of grasses and broadleafed weeds in orchards, but where heavy infestations of capeweed occur REGLONE should be added to Gramoxone 250 at the rate of 1.5 L/ha. For inter-row or around butts use high volume applications. Gramoxone 250, Spray.Seed 250 and REGLONE have no effect on brown bark but care should be taken when spraying around trees to avoid spray contacting green bark or plant material.	
Pasture Renovation and establishment	Capeweed and <i>Erodium</i> spp. (Storksbill)	All states	750 mL to 1.5 L/ha plus Agral in a minimum of 100 L water	Apply by boom spray as an overall spray on 'run-down' pasture after heavy grazing. Pasture should not be greater than 4 cm long when sprayed. Grazing should be carried out during previous spring, summer and early autumn. Where Capeweed is in the very young seedling stage (2 or 3 true leaves only) rates may be reduced to 350 mL/ha. Where Capeweed infestation is high, oversowing with new pasture seed by direct drilling is advisable. Direct drill 3 to 7 days after spraying using a pasture mix suitable for the district.	
	Barley Grass, Brome Grass, Silver Grass, Sweet Vernal Grass		750 mL to 1.5 L/ha ^Δ plus 1 to 2 L/ha Gramoxone 250 in a minimum of 100 L water		
Row Crops, Vegetables, Market Gardens	Broadleaf weeds	All states	1.4 L/ha ^Δ	Seedling weeds	Spray.Seed 250 and Gramoxone 250 are more generally used for grass and broadleaf weed control in these situations. However, where broadleaf weeds dominate, particularly capeweed, REGLONE should be tank mixed with Gramoxone 250 or instead of Gramoxone 250 where grass weeds are absent. Apply as a blanket spray prior to crop emergence. Once crops have emerged, or seedlings have been transplanted, apply as a shielded spray between crop rows. Do not allow spray to contact any part of the crop.
			2.8 ^Δ to 4 L/ha ^Δ per 200 to 300 L water	Mature weeds	
Wheat, Oats	Capeweed	Qld, NSW, Vic, Tas, SA only	550 mL/ha in 200 L of water	Small seedlings. Do not add wetting agent. Spray when the crop is between the 4 (wheat) or 3 (oats) leaf and early tillering stage.	
			700 mL/ha in 200 L of water	Older seedlings. Do not add wetting agent. Spray when the crop is between the 4 (wheat) or 3 (oats) leaf and early tillering stage.	

Crop	Weeds	States	Rate ^Δ	Critical Comments
Wheat	Suppression of Wild Radish (<i>Raphanus raphanistrum</i>) (GS10 - 12)	All states	700 mL/ha	<p>DO NOT apply later than the early tillering growth stage (GS22) of the crop: Target Wild Radish up to the 2-leaf growth stage.</p> <p>Double Knock application: Applying REGLONE at least 14 but less than 21 days prior to the application of a herbicide with activity on wild radish eg Jaguar, Tigrex, Velocity may improve overall control, especially when targeting populations with developing herbicide resistance. REGLONE will improve coverage of the following herbicide by reducing total wild radish numbers and therefore inter plant shading. REGLONE should not be used after an application of another wild radish herbicide.</p> <p>Crop Phytotoxicity: The application of REGLONE can cause severe phytotoxicity in certain circumstances. Refer to the General Instructions for specific guidance on conditions that will produce the lowest level of phytotoxicity.</p> <p>DO NOT add an adjuvant or water conditioner or tank mix an application of REGLONE with any other pesticide or fertiliser. DO NOT apply to a crop that is not actively growing and healthy. DO NOT apply more than once per crop.</p>
Winter Cereals	Pre-harvest weed control	All states	1 to 3 L/ha ^Δ	Spray as soon as the crop is fully mature and ready for harvesting. Under wet spring conditions crops can periodically become infested with weeds which seriously interfere with harvest operations. REGLONE will control these weeds allowing more efficient harvest.
Wheat		NSW only	2 L/ha ^Δ 3 L/ha ^Δ	Light to moderate stands Moderate to heavy stands
				Ensure that spray penetrates deep down into the crop canopy.

NOTE: Use higher rate for dense or weedy crops.

^Δ WETTING AGENT: Add Agral at the rate of 200 mL/100 L or BS1000* at 160 mL/100 L of prepared spray unless otherwise specified.

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