

Product Name: Apparent Diquat 200 Herbicide
APVMA Approval No: 83557/125067



Label Name:	Apparent Diquat 200 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 the control of a wide range of broadleaf weeds as specified in the Directions for Use table. For application through aircraft and ground equipment.
Net Contents:	5 L-200 L
Restrains:	RESTRAINTS Best results may be obtained when application is made in dull weather or at the end of the day. DO NOT spray when weeds are under drought stress or when covered with dust or soil.
Directions for Use:	This section contains file attachment.
Other Limitations:	
Withholding Periods:	WITHHOLDING PERIODS: DO NOT GRAZE OR CUT SPRAYED VEGETATION FOR STOCK FOOD FOR AT LEAST 1 DAY AFTER APPLICATION.

DO NOT APPLY LATER THAN LISTED DAYS BEFORE HARVEST:
PIGEON PEAS, CANOLA, SUNFLOWER, SOYA BEANS, SUGAR CANE: DO NOT HARVEST FOR 4 DAYS AFTER APPLICATION.
RICE: DO NOT HARVEST FOR 5 DAYS AFTER APPLICATION.
POTATOES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.
SWEET POTATOES: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

DO NOT USE TREATED WATER FOR HUMAN CONSUMPTION, LIVESTOCK WATERING OR IRRIGATION PURPOSES FOR 10 DAYS AFTER APPLICATION.

Trade Advice:

General Instructions:

This section contains file attachment.

Resistance Warning:

**RESISTANT WEEDS WARNING
GROUP L HERBICIDE**

Apparent Diquat 200 Herbicide is a member of the bipyridyl group of herbicides. The product has the inhibitors of photosynthesis 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 individual 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 L herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, AIRR Apparent Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

Precautions:

Protections:

PROTECTION OF CROPS, NATIVE AND OTHER NON- TARGET PLANTS

DO NOT apply Apparent Diquat 200 Herbicide under weather conditions or from spraying equipment, which may cause spray to drift onto nearby susceptible crops/plants, cropping lands or pastures.

PROTECTION OF LIVESTOCK

Domestic pets and poultry – keep away from treated areas. Low hazard to bees. No special precautions are required.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND THE ENVIRONMENT

DO NOT contaminate streams, rivers or watercourse with the product or used containers.

Storage and Disposal:

STORAGE AND DISPOSAL

For Non-Refillable Containers: Store in the closed, original container in a dry, well-ventilated area. Do not store for prolonged periods in direct sunlight. Triple 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 a 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 500mm 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.
For Refillable Containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

Safety Directions:

SAFETY DIRECTIONS

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, washable hat, elbow-length PVC gloves and face shield or goggles and half-face respirator or disposable respirator. 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 day's use, wash gloves, face shield or goggles, respirator and if rubber, wash with detergent and warm water, face shield and contaminated clothing.

First Aid Instructions:

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre.
Phone Australia 131126; New Zealand 0800 764 766. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

First Aid Warnings:

DIRECTIONS FOR USE

Pre-harvest crop desiccation

CROP	STATE	RATE ¹	WHP	CRITICAL COMMENTS	
Cotton (Short stapled varieties only)	QLD, NSW, WA only	2 or 3L/ha	Nil	Apply when 85% of the bolls are open and remaining bolls are mature. This product can damage green bolls.	
Dry Beans, Peas	ALL STATES	2 or 3L/ha	Nil	Spray as soon as the crop has reached full maturity. This product helps overcome slow and uneven ripening and weed problems at harvest.	
Linseed	ALL STATES	2 or 3L/ha	1 day grazing	Spray when 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 or 3L/ha	1 day grazing	Spray as soon as the crop has reached full maturity. This product helps overcome slow and uneven ripening and weed problems at harvest.	
Mung Beans	QLD, NSW only	2 or 3L/ha	Nil	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 3L/ha	Nil	<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 Apparent Diquat 200 Herbicide enables direct harvesting instead of cutting and windrowing and may result in higher seed quality. Harvest 3 to 4 days after spraying.
Pigeon Peas	QLD, NSW only	2 or 3L/ha	4 days	Spray as soon as the crop has reached full maturity.	
Potato (haulm desiccation)	ALL STATES	3 to 4L/ha	7 days	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 and dense haulm.	
Ground stored pre-harvest weed control		1.5L/ha plus 1.2L Apparent Paraquat 250 Herbicide		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.	
Rape	ALL STATES	1.5 or 3L/ha	4 days	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	QLD, NSW only	2 to 3L/ha	5 days	Spray when 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	QLD, NSW only	2 to 3L/ha	1 day grazing	Spray as soon as the seed is mature and the moisture content about 25%. Apparent Diquat 200 Herbicide will advance harvest and reduce seed losses due to differential ripening, seed shedding and birds.
Soya Beans	QLD, NSW, WA only	2 to 3L/ha	4 days	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.
Sugar Cane	QLD, NSW only	2 to 3L/ha	4 days	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 200mL/200L water		Spray to visible wetness.
Sunflower	ALL STATES	2 to 3L/ha	4 days	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	QLD only	3 to 4L/ha	14 days	Apply 2 weeks prior to harvest.

General Weed Control

CROP	WEEDS CONTROLLED	STATE	RATE ¹	WHP	CRITICAL COMMENTS	
Aquatic areas	Duck Weeds, Red Azolla, Water Hyacinth, Salvinia, Marsilea, Water Lillies, Water Lettuce	ALL STATES	5 or 10L/ha	10 days	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.	
			400mL plus 150mL Agral* per 100L water		Small areas – spray to wet weeds thoroughly. About 1mL of product should be sufficient to treat about 1m ² .	
	Cattail and Pond Weeds		5L/megalitre water		Apply by injection below the surface or as a surface spray.	
Asparagus	Broadleaf weeds	ALL STATES	1.4L/ha plus 800mL Agral in 400L water/ha	Nil	Apply to control seedling weeds before spears have emerged.	
Hops	Annual broadleaf and grass weeds	VIC, TAS only	700mL or 14L/ha may be mixed with 12 to 1.6L/ha Apparent Paraquat 250 Herbicide and/or 1.1kg/ha Apparent Simazine 900 WG Herbicide	Nil	Apply as a directed inter-row spray prior to crop emerging from winter dormancy, using a minimum of 250L/ha spray volume to ensure good and even coverage of weeds. Add Agral or Apparent Wetter 1000 at the rate of 200mL/100L water – see General Instructions. If used with Apparent Paraquat 250 Herbicide, observe safety directions for that product.	
Infested areas	Cotton Thistle (<i>Onopordum acanthium</i>)	TAS only	300mL/ha plus 150mL Agral in 100L water	Nil	Spot spray at the rosette stage before the centre shoot is 15cm 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	2.8L/ha plus 1L Agral in 200L water/ha		Apply as an overall treatment to prevent seeding.	
			100mL plus 70mL Agral per 15L knapsack		Alternatively spot spray on the same basis.	
Lucerne	Capeweed, <i>Erodium</i> spp.	ALL STATES	350mL/ha plus Agral in 200L water/ha	1 day grazing	Early autumn application.	Heavy grazing is necessary to reduce lucerne to 2cm in height before spraying.
			750mL/ha plus Agral in 200L water/ha		Late winter application.	

General Weed Control – continued

CROP	WEEDS CONTROLLED	STATE	RATE ¹	WHP	CRITICAL COMMENTS
Oil seed poppies	Weed control	TAS only	300mL to 1.5L/ha	1 day grazing	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 and Vineyards	Capeweed	ALL STATES	1.5L plus 1.4L Agral in 700mL water per ha plus 1.6L/ha Apparent Paraquat 250 Herbicide	Nil	Under most conditions Apparent Paraquat 250 Herbicide at 1.6L/ha will give effective control of grasses and broadleaf weeds in orchards, but where heavy infestations of capeweed occur this product should be added to Apparent Paraquat 250 Herbicide at the rate of 1.2L/ha. For inter-row or around butts use high volume applications. For full ground cover use a minimum of 700mL/ha. Apparent Paraquat 250 Herbicide and this product have no effect on brown bark but care should be taken when spraying around trees to avoid spray contacting green bark. There are no harmful soil residues.
Pasture renovation and establishment	Capeweed, <i>Erodium</i> spp. (Storksbill)	ALL STATES	750mL or 1.5L/ha plus Agral in a minimum of 100L water	1 day grazing	Apply by boom spray as an overall spray on 'run-down' pasture after heavy grazing. Pasture should not be greater than 4cm 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 350mL/ha. Where capeweed infestation is high, over sowing with new pasture seed by direct drilling is advisable. Direct drill 3 to 7 days after spraying using a pasture mixture suitable to the district.
	Barley Grass, Brome Grass, Silver Grass, Sweet Vernal Grass		750mL or 1.5L/ha plus 1 to 2L Apparent Paraquat 250 Herbicide per hectare in a minimum of 100L water/ha		
Row crops Vegetables and Market gardens	Broadleaf weeds	ALL STATES	1.4L/ha	Nil	Seedling weeds
			2.4L/ha or 4L/ha per 200 to 300L water/ha plus 200mL Agral per 100L water		Mature weeds
Wheat and Oats	Capeweed	QLD, NSW, VIC, TAS, SA only	550mL/ha in 200L water	Nil	Small seedlings. DO NOT add wetting agent. Spray when the crop is between the 4 (wheat) or 3 (oats) leaf and early tillering stage.
			700mL/ha in 200L 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.
Winter Cereals	Pre-harvest weed control	ALL STATES	1 or 3L/ha	Nil	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.

Wheat	Pre-harvest weed control	NSW only	2L/ha	Nil	Light to moderate stands	Ensure that spray penetrates deep down into the crop canopy.
			3L/ha		Moderate to heavy stands	

1 Use higher rate for dense or weedy crops.

WETTING AGENT: Add Agral at the rate of 200mL/100L or Apparent Wetter 1000 at 160mL/100L 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

GENERAL INSTRUCTIONS

Apparent Diquat 200 Herbicide 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 broad-leaved weeds. It is rapidly absorbed and is not affected by rain falling shortly after application. 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.

MIXING

Add the required quantity of Apparent Diquat 200 Herbicide to water in the spray tank and stir to give even mixing. Mix again if left standing. Use clean water only, as suspended soil particles in dirty water will interfere with herbicidal action.

METHOD OF 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.

Application Rates

For application to seedling weeds, Apparent Diquat 200 Herbicide is generally recommended at 1.4L/ha and Apparent Paraquat 250 Herbicide at 1.1L/ha. Use Apparent Diquat 200 Herbicide at 2.8 to 4L/ha and Apparent Paraquat 250 Herbicide at 2.2 to 3.2L/ha when weeds are at the older stages of growth. Apparent Paraquat 250 Herbicide is preferred where grasses are dominant and Apparent Diquat 200 Herbicide where there are mainly broadleaf weeds. Best results may be obtained when application is made in dull weather or at the end of the day. This product may also be used with 200g/L Paraquat products at 1.4L/ha for seedling weeds and 2.8 to 4L/ha for older stages of weed growth.

Boom Spraying: A boom sprayer 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 100L/ha is recommended.

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

Aerial Application: Flying height, pressure, nozzle size and positioning on the aircraft should be such as to minimise spray drift. Apply 30 to 60L 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 paintwork 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 on to 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 seedbeds before sowing, or post-sowing pre-crop emergence, blanket spray with this product using boom spray equipment or knapsack sprayers.

Pre-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.

Misting Application: The use of misting machine is not recommended for broad hectare spraying. If operators do not use this product through misting machines, they must be cut back to run at half-throttle, thus preventing the production of fine droplets, the inhalation of which may be dangerous.

When misting with this product for weed control in confined spaces, or where there is a risk of exposure to spray mist, wear waterproof footwear, waterproof protective clothing, impervious gauntlet length gloves (rubber or PVC), goggles, face mask and respirator covering the nose and mouth and capable of filtering spray droplets. A high efficiency type particulate respirator is recommended but in any event use a respirator, which complies with the requirements of AS1716 (Standards Association of Australia). Further advice on safety equipment should be obtained from a safety equipment manufacturer. It should be noted that beards may reduce the efficiency of respirators.

WARNING – Markers: If possible fixed markers should be used. If necessary to use human markers, they should be fully informed and should observe all the safety directions and precautions contained in this leaflet.

Human Markers: Must avoid exposure to the spray mist, eg. by always working upwind and where possible standing at least 50 metres beyond the edge of the target area. Protective clothing such as broad-brimmed hat, goggles, half-face respirator, waterproof jacket and pants, gloves and boots should be worn. A high efficiency type particulate respirator is recommended, but in any event a respirator which complies with the requirements of AS1716 (Standards Association of Australia) should be used. DO NOT touch or walk through freshly treated crops.

COMPATIBILITY

This product mixes readily with Apparent Paraquat 250 Herbicide, the soil residual herbicides Atradex* WG, Apparent Atrazine 900 WG Herbicide, Apparent Diuron 900 WG Herbicide, and Apparent Simazine 900 WG Herbicide and other 200g/L paraquat products, where prolonged weed control is required as well as a quick knockdown.