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# **POISON**

KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING



# Diquat 200

# **HERBICIDE**

ACTIVE CONSTITUENT: 200 g/L DIQUAT present as DIQUAT DIBROMIDE MONOHYDRATE

GROUP L HERBICIDE

For the control of a wide range of broadleaf weeds as per the Directions for Use table.

For application through aircraft and ground equipment.

IMPORTANT: Read this booklet before use.

APVMA Approval No: 83557 /

# APPARENT PTY LTD A.C.N. 143 724 136

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# DIRECTIONS FOR USE

# 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.

CROP	STATE	RATE <sup>®</sup>	WHP
Cotton (Short stapled varieties only)	Qld, NSW, WA only	2 or 3 L/ha	Nil
Dry Beans, Peas	All States	2 or 3 L/ha	Nil
Linseed	All States	2 or 3 L/ha	1 day grazing
Lupins	All States	2 or 3 L/ha	1 day grazing
Mung Beans	Qld, NSW only	2 or 3 L/ha	Nil
Perennial Legume Seed Crops	All States	1.5 to 3 L/ha	Nil
Pigeon Peas	Qld, NSW only	2 or 3 L/ha	4 days
Potato (Haulm desiccation)	All States	3 to 4 L/ha	7 days
Ground stored Pre-harvest weed control		1.5 L/ha plus 1.2 L ACCENSI Paraquat 250 Herbicide	
Rape	All States	1.5 or 3 L/ha 4 days	
Rice	Qld, NSW only	2 to 3 L/ha 5 days	
Sorghum	Qld, NSW only	2 to 3 L/ha 1 day grazing	
Soya Beans	Qld, NSW, WA only	2 to 3 L/ha 4 days	
Sugar Cane	Qld, NSW only	2 to 3 L/ha	4 days
		High volume hand spraying 200 mL/200 L water	

CRITICAL COMMENTS			
Apply when 85% of the bolls are open and remaining bolls are mature	. This product can damage green bolls.		
Spray as soon as the crop has reached full maturity. This product helps overcome slow and uneven ripening and veed problems at harvest.			
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.			
Spray as soon as the crop has reached full maturity. This product helps o weed problems at harvest.	vercome slow and uneven ripening and		
Apply when 80 to 90% of pods are black or brown. Desiccation of weeds harvesting, reduces harvester wear and tear but can increase harvest los			
Lucerne – Spray when 60 to 70% of the pods are brown/bluish and the seeds are yellow/brown and easily released from the pods.  Red Clover – Spray when majority of seed heads are brown and the seed is purple.	The use of Apparent Diquat 200 Herbicide enables direct harvesting instead of cutting and windrowing and may result in higher seed quality.		
White Clover – Spray when majority of seeds are hard and yellow.  Spray as soon as the crop has reached full maturity.	Harvest 3 to 4 days after spraying.		
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.			
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.			
Spray when 70% of the pods are yellow and the seeds are browny/bluish and pliable. Canola ripens unevenly and is prone to pod shatter and seed loss. Direct harvest 4 to 7 days after spraying.			
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%.			
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.			
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.			
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.			

Spray to visible wetness.

CROP (cont)	STATE	RATE <sup>®</sup>	WHP
Sunflower	All States	2 to 3 L/ha	4 days
Sweet Potatoes	Qld only	3 to 4 L/ha	14 days

General Weed Control CROP	WEEDS CONTROLLED	STATE	RATE <sup>®</sup>
Aquatic areas	Duck Weeds, Red Azolla, Water Hyacinth, Salvinia, Marsilea, Water Lillies, Water Lettuce	All States	5 or 10 L/ha
			400 mL plus 150 mL Agral* per 100 L water
	Cattail and Pond Weeds		5 L/megalitre water
Asparagus	Broadleaf weeds	All States	1.4 L/ha plus 800 mL Agral in 400 L water/ha
Hops	Annual broadleaf and grass weeds	Vic, Tas only	700 mL or 1.4 L/ha may be mixed with 1.2 to 1.6 L/ha ACCENSI Paraquat 250 Herbicide and/or 1.1 kg/ha ACCENSI Simazine 900 WG Herbicide
Infested areas	Cotton Thistle (Onopordum acanthium)	Tas only	300 mL/ha plus 150 mL Agral in 100 L water
	Saffron Thistle	All States	2.8 L/ha plus 1 L Agral in 200 L water/ha 100 mL plus 70 mL Agral per 15 L knapsack
Lucerne	Capeweed, <i>Erodium</i> spp.	All States	350 mL/ha plus Agral in 200 L water/ha 750 mL/ha plus Agral in 200 L water/ha
Oil seed poppies	Weed control	Tas only	300 mL to 1.5 L/ha

# **CRITICAL COMMENTS**

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.

Apply 2 weeks prior to harvest.

WHP	CRITICAL COMMENTS		
Apply as an overall spray wetting foliage thoroughly. Clear water is n suspended soil particles interfere with herbicidal action. Use the high or for deep or dirty water.			
	Small areas – spray to wet weeds thoroughly. About 1 mL of product should be sufficient to treat about 1 m <sup>2</sup> .		
	Apply by injection below the surface or as a surface spray.		
Nil	Apply to control seedling weeds before spears have emerged.		
Nil	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. Add Agral or ACCENSI Wetter 1000 at the rate of 200 mL/100 L water – see General Instructions.  If used with ACCENSI Paraquat 250 Herbicide observe safety directions for that product.		
Nil	Spot spray at the rosette stage before the centre shoot is 15 cm tall. The spray should be applied t give complete wetting of the leaf surface.  DO NOT use a lower rate or treat at a later growth stage.		
Apply as an overall treatment to prevent seeding.		seeuilg.	
	Alternatively spot spray on the same basis.		
1 day grazing	Early Autumn application.	Heavy grazing is necessary to reduce Lucerne to 2 cm in height before spraying.	
	Late Winter application.		
1 day			
grazing			

General Weed Control (co	nt)		
CROP	WEEDS CONTROLLED	STATE	RATE <sup>®</sup>
Orchards and Vineyards	Capeweed	All States	1.5 L plus 1.4 L Agral in 700 mL water per ha plus 1.6 L/ha ACCENSI Paraquat 250 Herbicide
Pasture Renovation and establishment	Capeweed, <i>Erodium</i> spp. (Storksbill), Barley Grass, Brome Grass, Silver Grass, Sweet Vernal Grass	All States	750 mL or 1.5 L/ha plus Agral in a minimum of 100 L water 750 mL or 1.5 L/ha plus 1 to 2 L ACCENSI Paraquat 250 Herbicide per hectare in a minimum of 100 L water/ha
Row crops Vegetables and Market gardens	Broadleaf weeds	All States	1.4 L/ha 2.4 L/ha or 4 L/a per 200 to 300 L water/ha plus 200 mL Agral per 100 L water
Wheat and Oats	Capeweed	Qld, NSW, Vic, Tas, SA only	550 mL/ha in 200 L water 700 mL/ha in 200 L water
Winter Cereals	Pre-harvest weed control	All States	1 or 3 L/ha
Wheat	Pre-harvest weed control	NSW only	2 L/ha 3 L/ha

O Use higher rate for dense or weedy crops.
WETTING AGENT: Add Agral at the rate of 200 mL/100 L of ACCENSI Wetter 1000 at 160 mL/100 L of prepared spray unless otherwise specified.

WHP	CRITICAL COMMENTS		
Nil	Under most conditions ACCENSI Paraquat 250 Herbicide at 1.6 L/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 ACCENSI Paraquat 250 Herbicide at the rate of 1.2 L/ha. For inter-row or around butts use high volume applications.  For full ground cover use a minimum of 700 mL/ha. ACCENSI 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.		
1 day grazing	Apply by boom spray as an overall spray o not be greater than 4 cm long when spray Summer and early Autumn. Where Capew leaves only) rates may be reduced to 350	n 'run-down' pasture after heavy grazing. Pasture should ed. Grazing should be carried out during previous Spring, sed is in the very young seedling stage (2 or 3 true mlL/ha. Where Capeweed infestation is high, over sowing advisable. Direct drill 3 to 7 days after spraying using a	
Nil	Seedling weeds. Mature weeds	ACCENSI Paraquat 250 Herbicide is more generally used for grass and broadleaf weed control in these situations. However, where broadleaf weeds dominate, particularly Capeweed, this product should be used as an addition to ACCENSI Paraquat 250 Herbicide or instead of ACCENSI Paraquat 250 Herbicide where grass weeds are absent.	
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.  Older seedlings.  DO NOT add wetting agent. Spray when the crop is between the 4 (wheat) or 3 (oats) leaf and early tillering stage.		
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.		
Nil	Light to moderate stands.  Moderate to heavy stands.	Ensure that spray penetrates deep down into the crop canopy.	

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

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.

DO NOT HARVEST FOR 5 DAYS AFTER APPLICATION. RICE: 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.

#### GENERAL INSTRUCTIONS

Apparent Diguat 200 Herbicide is an agueous solution of Diguat, a non-volatile herbicide with unique properties. It very guickly 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 Diguat 200 Herbicide is generally recommended at 1.4 L/ha and ACCENSI Paraguat 250 Herbicide at 1.1 K/ha. Use Apparent Diguat 200 Herbicide at 2.8 to 4 L/ha and ACCENSI Paraguat 250 Herbicide at 2.2 to 3.2 L/ha when weeds are the older stages of growth is preferred where grasses are dominant and Apparent Diguat 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 200 q/L Paraguat products at 1.4 L/ha for seedling weeds and 2.8 to 4 L/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 100 L/ha is recommended.

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 litre knapsack.

Aerial Application: Flying height, pressure, nozzle size and positioning on the aircraft should be such as to minimise sprav 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 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, eq. 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, googles, 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 Accensi Paraguat 250 Herbicide, the soil residual herbicides Atradex\* WG, Accensi Atrazine 900 WG Herbicide, Accensi Diuron 900 WG Herbicide, and Accensi Simazine 900 WG Herbicide and other 200 g/L Paraguat products, where prolonged weed control is required as well as a quick knockdown.

#### RESISTANT WEEDS WARNING



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, Apparent Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

## 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 spry 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 waterways with the product or used containers.

#### STORAGE AND DISPOSAL

Store in the closed, original container in a dry, well- ventilated area. DO NOT store for prolonged periods in direct sunlight. The method of disposal of the container depends on the container type.

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 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 a designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is 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.

For Refillable Containers: Storage must be secure so that contents cannot be tampered with. All locks and/or seals must be in order. If locks or seals are broken prior to initial use then the integrity of this product cannot be assured. If this occurs Apparent Pty Ltd should be advised immediately. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

#### 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 NDT 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 deteroent and warm water. face shield and contaminated clothing.

#### FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

## SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet (SDS), which can be obtained from the supplier.

**CONDITIONS OF SALE:** The use of Apparent Diquat 200 Herbicide being beyond the control of the manufacturer no warranty expressed or implied is given by Apparent Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Apparent Pty Ltd accepts no responsibility for any consequence whatsoever resulting from the use of this product.