

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 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.

IMPORTANT: READ THIS LEAFLET BEFORE USING THIS PRODUCT

4 FARMERS AUSTRALIA PTY LTD

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Batch Number:

Date of Manufacture:

APVMA Approval No: 84436/110412



TOXIC

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U.N. No. 3016	BIPYRIDILUM PESTICIDES LIQUID, TOXIC, ENVIRONMENTALLY HAZARDOUS	
In a Transport Emergency Dial 000 Police or Fire Brigade	PG III	HAZCHEM 2X
	Special Poisons Advice: 13 11 26	

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.

Pre-harvest crop desiccation:

Crop	State	Rate *	WHP	Critical Comments
Cotton (short stapled varieties only)	Qld, NSW, and WA only	2 to 3L/ha^	NIL	Apply when 85% of the bolls are open and remaining bolls are mature. 4Farmers Diquat 200 Herbicide can damage green bolls.
Dry Beans Dry Peas	All States	2 to 3L/ha^	NIL	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 3L/ha^	1 day grazing	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 3L/ha^	1 day grazing	Spray as soon as crop has reached full maturity. Helps overcome slow and uneven ripening and weed problems at harvest.
Mung Beans	Qld, NSW only	2 to 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	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. White Clover – Spray when majority of seeds are hard and yellow. The use of 4Farmers 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 to 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 of dense haulm. Regrowth may occur if seed crops are desiccated early.
Ground stored – pre-harvest weed control		1.5L/ha plus 1.2L 4Farmers Paraquat 250	7 days	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 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 and NSW only	2 to 3L/ha^	5 days	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	Qld and NSW only	2 to 3L/ha^	1 day grazing	Spray as soon as the seed is mature and the moisture content about 25%. 4Farmers Diquat 200 Herbicide will advance harvest and reduce seed losses due to differential ripening, seed shedding and birds.
Soybeans	Qld, NSW and 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.
Sugarcane	Qld and 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. Spray to visible wetness.
		High volume hand spraying 200mL^/200L water		
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 harvesting.

General weed control:

Crop	Weeds Controlled	State	Rate *	WHP	Critical Comments
Aquatic areas	Duck Weeds, Red Azolla, Water Hyacinth, Salvinia, Marsilea, Water Lilies and 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 .
			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 and Tas only	700mL to 1.4L/ha^ may be mixed with 1.2 to 1.6L/ha 4Farmers Paraquat250 and/ or 1.1 kg Simazine Granules	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. Agral at the rate of 200mL/100L water – see General Instructions. If used with 4Farmers 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.
			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 and <i>Erodium</i> spp.	All States	350mL/ha^ in 200L water	1 day grazing	Early autumn application.
			700mL/ha^ in 200L water		Late winter application
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 of the poppy contracting company. DO NOT add Agral or any other wetting agent to the spray solution.

Crop	Weeds Controlled	State	Rate *	WHP	Critical Comments	
Orchards and Vineyards	Capeweed	All States	1.5L plus 1.4L Agral in 700L water per ha plus 1.6L/ha 4Farmers Paraquat 250	Nil	Under most conditions, 4Farmers Paraquat 250 at 1.6L/ha will give effective control of grasses and broadleaved weeds in orchards, but where heavy infestations of Capeweed occur, 4Farmers Diquat 200 Herbicide should be added to 4Farmers Paraquat 250 at the rate of 1.5L/ha. For inter-row or around butts, use high volume applications. For full ground cover use a minimum of 700mL/ha. 4Farmers Paraquat 250 and 4Farmers Diquat 200 Herbicide have no effect on brown bark but care should be taken when spraying around trees to avoid spray contacting green bark or plant material. There are no harmful soil residues.	
Pasture Renovation and establishment	Capeweed and Erodium spp. (Storksbill)	All States	750mL to 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, oversowing 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 and Sweet Vernal Grass		750 mL to 1.5 L/ha^ plus 1 to 2 L/ha 4Farmers Paraquat 250 in a minimum of 100 L water/ha			
Row crops, vegetables and market gardens	Broadleaf weeds	All States	1.4L/ha^	Nil	Seedling weeds	4Farmers Paraquat 250 is more generally used for grass and broadleaf weed control in these situations. However, where broadleaf weeds dominate, particularly Capeweed, 4Farmers Diquat 200 Herbicide should be tank mixed with 4Farmers Paraquat 250 or instead of 4Farmers Paraquat 250 where grass weeds are absent.
			2.8^ to 4L/ha^ per 200 to 300L water/ha	Nil	Mature weeds	
Wheat and Oats	Capeweed	Qld, NSW, Vic, Tas and SA only	550mL/ha in 200L of 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 of water	Nil	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 to 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		NSW only	2L/ha^	Nil	Light to moderate stands.	Ensure that spray penetrates deep down into the crop canopy.
			3L/ha^	Nil	Moderate to heavy stands.	

* **NOTE:** Use higher rate for dense or weedy crops.

^ WETTING AGENT: Add Agral at the rate of 200mL/100L or BS1000 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.

WITHHOLDING PERIOD:

Grazing:

DO NOT GRAZE OR CUT SPRAYED VEGETATION FOR STOCK FOOD FOR 1 DAY AFTER APPLICATION.

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

Pigeon peas, canola, sunflower soybeans, sugarcane: 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.

GENERAL INSTRUCTIONS

USES

4Farmers Diquat 200 Herbicide is an aqueous solution of diquat, a non-volatile herbicide which unique properties. It very quickly kills green growth with which it comes into contact and is particularly effective against broadleaved 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.

RESISTANT WEEDS WARNING

GROUP L HERBICIDE

4Farmers Diquat 200 Herbicide is a member of the bipyrindyl group of herbicides. The product has the inhibitor 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 inhibitors of 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 used repeatedly. The resistant weeds will not be controlled by this product or other inhibitors of Group L herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, 4Farmers Australia Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

MIXING

Add the required quantity of 4Farmers Diquat 200 Herbicide 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.

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. 4Farmers Diquat 200 Herbicide is rapidly absorbed and is not affected by rain falling shortly after application.

APPLICATION RATES

For application to seedling weeds 4Farmers Diquat 200 Herbicide is generally recommended at 1.4L/ha and 4Farmers Paraquat 250 Herbicide at 1.1L/ha. Use 4Farmers Diquat 200 Herbicide at 2.8 to 4L/ha and 4Farmers Paraquat 250 Herbicide at 2.2 to 3.2L/ha when weeds are the older stages of growth is preferred where grasses are dominant and 4Farmers 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 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.

COMPATIBILITY

This product mixes readily with 4Farmers Paraquat 250 Herbicide, the soil residual herbicides Atrazine Granules, Diuron WG and Simazine Granules where prolonged weed control is required as well as a quick knockdown.

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.

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.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

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

PROTECTION OF 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 ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE

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 a place away from children, animals, food, feedstuffs, seed and fertilisers.

Do not contaminate seed, feed or foodstuff. Do not re-use container for any purpose.

DISPOSAL

10L, 20L Containers

Triple-rinse containers before disposal. Dispose of rinsate or any undiluted chemical according to state/territory legislative requirements. This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately

110L, 1000L Containers

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

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, 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 and face shield or goggles, respirator and if rubber wash with detergent and warm water, and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131126).

If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

SAFETY DATA SHEET

For further information please refer to the Safety Data Sheet. For a copy visit our website at www.4farmers.com.au

CONDITIONS OF SALE

This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. 4Farmers' liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which 4Farmers shall have no liability.