

DANGEROUS POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
CAN KILL IF SWALLOWED
DO NOT PUT IN DRINK BOTTLES
KEEP LOCKED UP

Pacific Diquat/Paraquat 250 Herbicide



ACTIVE CONSTITUENTS: 135 g/L PARAQUAT present as PARAQUAT DICHLORIDE
115 g/L DIQUAT present as DIQUAT DIBROMIDE

GROUP L HERBICIDE

For the Control of a Wide Range of Grasses and Broadleaf Weeds.
Can be utilised in Crop Establishment programs.
Contains non-ionic wetter.

IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USING THIS PRODUCT

CONTENTS:

FOR USE ONLY AS AN AGRICULTURAL HERBICIDE. THIS PRODUCT IS TOO HAZARDOUS TO BE USED IN THE HOME GARDEN.

Pacific Agriscience Pty Ltd
ACN: 096 082 316
Level 5 Nexus Norwest
4 Columbia Court
Baulkham Hills NSW 2153 Australia
Phone: 02 8860 6589

STORAGE AND DISPOSAL**(10L, 20L, 100L AND 200L ONLY)**

Store in the closed, original container in a dry, cool, well-ventilated locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. 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 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 (110L)

Store in the closed, original container in a dry, cool, well-ventilated locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

SAFETY DIRECTIONS

Very dangerous, particularly the concentrate. Product is poisonous if absorbed by skin contact, inhaled or swallowed. Will irritate eyes, nose, throat and skin. Attacks the eyes. Protect eyes while using. Avoid contact with eyes, skin and clothing. DO NOT inhale spray mist. When opening the container and preparing product for use 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, half face piece respirator or disposable respirator.

If clothing becomes contaminated with product or wet with spray, remove contaminated clothing immediately. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Avoid contact with spray mist. Do not inhale spray mist. 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, respirator and if rubber wash with detergent and warm water, face shield or goggles and contaminated clothing.

SPRAY APPLICATION

Do not work in spray mist.

Do not continue to use if skin irritation or nose bleed occurs. This may be caused by exposure to spray mist as the result of incorrect use of equipment or adverse climatic conditions. Stop and review handling and spraying techniques before further spraying. If symptoms persist, seek medical advice. When there is a risk of exposure to spray mist wear waterproof footwear and waterproof protective clothing, impervious gauntlet length gloves (rubber or PVC), goggles and a face mask and respirator covering nose and mouth and capable of filtering spray droplets. A high efficiency type particulate respirator is recommended, but in any event use a respirator that complies with the requirements of AS1716 (Standards Association of Australia). Further advice on safety equipment should be obtained from a safety equipment manufacturer.

Avoid contacting vegetation wet with spray, but if necessary to do so, wear waterproof footwear and waterproof protective clothing and gloves.

FIRST AID

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

Note for Physicians: For additional advice on the treatment of paraquat poisoning please consult the booklet 'Paraquat Poisoning: A Practical Guide to Diagnosis, First Aid and Hospital Treatment'.

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet that can be obtained from the supplier.

EXCLUSION OF LIABILITY

This product as supplied is of a high grade and suitable for the purpose for which it is expressly intended and must be used in accordance with the directions. The user must monitor the performance of any product as climatic, geographical or biological variables and/or developed resistance may affect the results obtained. No responsibility is accepted in respect of this product, save for those non-excludable conditions implied by the Trade Practices Act or any State or Federal legislation.

APVMA No.: 65708/51671

Batch No.
DOM

UN No. 3016	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, N.O.S. (contains paraquat and diquat)
PG III HAZCHEM 2 X	In a Transport Emergency DIAL 000 Police or Fire Brigade

Insert TOXIC 6 diamond here

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DIRECTIONS FOR USE**Restraints:**

Do NOT spray plants that are waterlogged, under stress of any kind or covered with soil or dust.

Do NOT spray plants covered with heavy dew, but rain following spraying will not affect results.

Do NOT sow or cultivate for 1 hour after spraying.

For ground application only – **DO NOT** use through aircraft, misting machines or hand-held ultra low volume controlled droplet applicators (CDA units) or back-mounted equipment.

SOUTHERN AUSTRALIA – FULL DISTURBANCE

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments
	Common Name	Botanical Name				
SOUTHERN AUSTRALIA DIRECT DRILLING with full combine or with cultivation before spraying or with cultivation after spraying as an aid in the establishment of crops including:	<u>Seedling Grasses</u> Annual ryegrass Barley grass Brome grass Volunteer cereals Wild Oats	<i>Lolium rigidum</i> <i>Hordeum spp.</i> <i>Bromus spp.</i> <i>Avena spp.</i>	2 to 3 leaf	0.6 to 0.8	Sthn NSW, Vic, Tas, SA, WA only	Refer to Crop Establishment Procedure 1.
			4 leaf to early tiller	0.8 to 1.6		In WA apply after autumn break within 4 weeks of weed germination. In other states apply to young or well-grazed weeds. In a typical mixed weed situation use the rate recommended for the growth stage of the hardest-to-kill weed species. Rates shown are for optimum conditions, for sowing equipment with wide points and overall soil disturbance. Under less favourable conditions or where spraying is delayed until winter or where narrow points are fitted or in higher rainfall areas, use higher rates in the range 1.2 to 2.4 L/ha. For dense mature swards over 2 months old or spring crops use rates up to 2.4 L/ha.
			mid to fully tillered	1.6 to 2.4		
	<u>Seedling Brassica weeds</u> Ball Mustard Charlock Indian Hedge Mustard Long Fruited Wild Turnip Muskweed Shepherd's Purse Short Fruited Wild Turnip Ward's Weed Wild radish	<i>Nestia paniculata</i> <i>Sinapsis arvensis</i> <i>Sisymbrium orientale</i> <i>Brassica tournefortii</i> <i>Myagrum perfoliatum</i> <i>Capsella bursa-pastoris</i> <i>Rapistrum rugosum</i> <i>Carrichtera annua</i> <i>Raphanus raphanistrum</i>	2 to 3 leaf	0.6 to 0.8 *		
			4 leaf to early tiller	0.8 to 1.6 *		
			mid to fully tillered	1.6 to 2.4 *		
Winter Canola Chickpeas Cereals (Wheat, Barley, Oats, Rye, Triticale) Field beans Field peas			1 to 5 cm diam	0.8 to 1.2		Also refer to Crop establishment Procedure 3. – Cultivation After Spraying. Cultivation can commence 30 minutes after spraying but should be completed within 7 days unless a suitable residual herbicide is added or weeds are sprayed again. Where heavy weed growth is present at spraying a better seedbed will result if cultivation is delayed 3 to 5 days to obtain maximum root release.
			5 to 10 cm diam	1.2 to 1.6		
			10 to 20 cm diam	1.6 to 2.4		

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments		
	Common Name	Botanical Name						
Lentils	Other seedling		1 to 4 leaf or 1 to 4 cm	0.8 to 1.2		Also refer to Crop Establishment Procedure 4. – Cultivation Before Spraying. Spraying may be carried out before or after sowing or transplanting but 3 days before the crop emerges. TANK MIX: see compatibility Section. Refer to partner product labels for suitability of use prior to sowing particular crops and relevant plant-back periods.		
Linseed (Linola)	broadleaved weeds							
Lupins	Bedstraw	<i>Galium tricornutum</i>	4 to 8 leaf or 4 to 8 cm	1.2 to 1.6				
Vetch	Bifora	<i>Bifora testiculata</i>						
Spring/Summer	Capeweed	<i>Arctotheca calendula</i>						
	Horehound	<i>Marubium vulgare</i>						
	Ivy-Leaf Speedwell	<i>Veronica hederifolia</i>						
	Pigeon peas	<i>Dipotaxis tenuifolia</i>						
	Safflower	<i>Medicago spp.</i>						
	Sorghum	<i>Emex australis</i>						
	Soybeans							
	Sunflower	<i>Urtica dioica</i>						
	Stinging Nettle	<i>Erodium spp</i>						
	Storksbill (wild geranium, crowsfoot)	<i>Trifolium subterranean</i>						
Pasture	Sub clover	<i>Vicia spp</i>						
	Clover grass							
	Lucerne							
	Medic							
	Deadnettle	<i>Lamium amplexicaule</i>	1 to 10 leaf or 1 to 10 cm diam	0.8 to 1.2				
	Fumitory	<i>Fumaria spp</i>						
	Melilot	<i>Melilotus spp</i>						
	Pimpernel	<i>Anagallis spp</i>						
	Poppy	<i>Papaver spp</i>						
	Saffron thistle	<i>Carthamus lanatus</i>						
	Sheepweed	<i>Buglossoides arvensis</i>						
	Paterson's Curse	<i>Echium plantagineum</i>	1 to 5 leaf	1.2 to 1.6				
	Wireweed	<i>Polygonum aviculare</i>	1 to 4 leaf	0.8 to 1.2				
	Marshmallow	<i>Malva parviflora</i>	1 to 12 leaf	0.8 to 1.2 + 75mL oxyfluorfen (240g/L)				

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments
	Common Name	Botanical Name				
	Volunteer Beans, Peas & Lupins		1 to 6 leaf	0.8 to 1.2 + 5g Rygel Metsulfuron or 0.8 to 1.2 + 500mL dicamba (200g/L)		

SOUTHERN AUSTRALIA – FALLOW / MINIMUM DISTURBANCE

Crop / Situation	Weeds Controlled Common Name	Botanical Name	Growth Stage	Rate L/ha	State	Critical Comments	
SOUTHERN AUSTRALIA DIRECT DRILLING with minimum disturbance (disc drill, modified combine, sod seeder) or FALLOWS Cultivated or non-cultivated as an aid in establishing crops or establishing and maintaining fallow. Includes the following crops: Winter Canola Chickpeas Cereals (Wheat, Barley, Oats, Rye, Triticale)	<u>Seedling Grasses</u> Annual ryegrass	<i>Lolium rigidum</i>	2 to 3 leaf	1.0 to 1.2	Sthn NSW, Vic, Tas, SA, WA only	Refer to Crop Establishment Procedures 1, 6 or 7b as appropriate to the particular situation.	
	Barley grass	<i>Hordeum spp.</i>	4 leaf to early tiller	1.2 to 2.4		In WA apply after autumn break within 4 weeks of weed germination. In other states apply to young or well-grazed weeds. In a typical mixed weed situation use the rate recommended for the growth stage of the hardest-to-kill weed species. Rates shown are for optimum conditions and for sowing equipment with narrow points. Under less favourable conditions or where spraying is delayed until winter or in higher rainfall areas or for fallow weed control, use higher rates in the range 2.4 to 3.2 L/ha. For dense swards or spring application use rates in the range 2.4 to 3.2 L/ha.	
	Brome grass	<i>Bromus spp.</i>	mid to fully tillered	2.4 to 3.2			
	Volunteer cereals						
	Wild Oats	<i>Avena spp.</i>					
	Vulpia (Silver grass, Sand Fescue)	<i>Vulpia spp.</i>	2 to 3 leaf	1.0 to 1.2 *			
			4 leaf to early tiller.	1.2 to 2.4 *			
			mid to fully tillered	2.4 to 3.2 *			
	<u>Seedling Brassica weeds</u>		1 to 5 cm diam	1.2 to 1.8			
	Ball Mustard	<i>Nestia paniculata</i>	5 to 10 cm diam	1.8 to 2.4			
	Charlock	<i>Sinapsis arvensis</i>	10 to 20 cm diam	2.4 to 3.2			
	Indian Hedge Mustard	<i>Sisymbrium orientale</i>					
	Long fruited wild Turnip	<i>Brassica tournefortii</i>					
	Muskweed	<i>Myagrum perfoliatum</i>					
	Shepherd's Purse	<i>Capsella bursa-pastoris</i>					
	Short Fruited Wild Turnip	<i>Rapistrum rugosum</i>					
	Ward's Weed	<i>Carrichtera annua</i>					
	Wild radish	<i>Raphanus raphanistrum</i>					
	<u>Other seedling broadleaved weeds</u>		1 to 4 leaf or 1 to 4 cm diam	1.2 to 1.8			
						Also refer to Crop establishment Procedure 3. – Cultivation After Spraying.	
						Cultivation can commence 30 minutes after spraying but should be completed within 7 days unless a suitable residual herbicide is added. Where heavy weed growth is present at spraying a better seedbed will result if cultivation is delayed 3 to 5 days.	
						Also refer to Crop Establishment Procedure 4. – Cultivation Before Spraying.	

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments		
	Common Name	Botanical Name						
Field beans	Bedstraw	<i>Galium tricornutum</i>	4 to 8 leaf or 4 to 8 cm diam	1.8 to 3.2		Spraying may be carried out before or after sowing but 3 days before the crop emerges. TANK MIX: see Compatibility Section. Refer to partner product labels for suitability of use prior to sowing particular crops and relevant plant-back periods.		
Field peas	Bifora	<i>Bifora testiculata</i>						
Lentils	Capeweed	<i>Arctotheca calendula</i>						
Linseed (Linola)	Horehound	<i>Marrubium vulgare</i>						
Lupins	Ivy-Leaf Speedwell	<i>Veronica hederifolia</i>						
Vetch	Lincoln weed	<i>Dipotaxis tenuifolia</i>						
Spring/Summer	Spiny Emex (doublegee, three cornered jack)	<i>Emex australis</i>						
	Fodder rape	<i>Urtica dioica</i>						
	Pigeon peas	<i>Erodium spp</i>						
	Safflower							
	Sorghum	<i>Vicia spp</i>						
Soybeans	Deadnettle	<i>Lamium amplexicaule</i>	1 to 10 leaf or 1 to 10 cm diam	1.2 to 3.2				
Sunflower	Fumitory	<i>Fumaria spp</i>						
Pasture	Melilot	<i>Melilotus spp</i>						
	Pimpernel	<i>Anagallis spp</i>						
	Clover grass	<i>Papaver spp</i>						
	Lucerne	<i>Carthamus lanatus</i>						
	Medic	<i>Buglossoides arvensis</i>						
	Paterson's Curse	<i>Echium plantagineum</i>	1 to 5 leaf	1.8 to 3.2				
	Wireweed	<i>Polygonum aviculare</i>						
	Marshmallow	<i>Malva parviflora</i>	1 to 12 leaf	1.2 to 1.8 + 75mL oxyfluorfen (240g/L)				
	Volunteer Beans, Peas & Lupins							

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments
	Common Name	Botanical Name				
	Medic	<i>Medicago spp</i>	1 to 4 leaf or 1 to 4 cm diam	1.2 to 1.8 + 500mL dicamba (200g/L)		
	Sub. Clover	<i>Trifolium subterranean</i>	4 to 8 leaf or 4 to 8 cm diam	1.8 to 3.2 + 5g Rygel Metsulfuron		
	Split Application for:		1 to 8 leaf or 1 to 8 cm diam	1.2 followed by 1.2		For sub clover control without the addition of dicamba in crops sown with triple disc, modified combine or sod seeder use a split application. Apply second application 7 to 15 days after first application and when green regrowth is present.
	Sub. Clover	<i>Trifolium subterranean</i>	4 leaf to early tillering	1.2 followed by 1.2		For control prior to sowing with combine use a split application. Apply first application in autumn to mid winter. Apply second application 7 to 15 days later and when green growth is present.
	Perennial Ryegrass	<i>Lolium perenne</i>	mid to fully tillered	1.6 followed by 1.6		Apply first application in autumn to mid winter. Apply second application 7 to 15 days later and when green growth is present.
	Most annual weeds		Weeds higher than 10cm	2.4 to 3.2		If there is excess leaf growth, i.e. more than 10 cm, split the recommended rate in half and apply second part 7 to 15 days after the first. Paddocks should be well grazed continuously from the break. The first application removes excess leaf growth, the second application is effective on residual green tissue. Green growth must be present for second application.
	Potato weed	<i>Heliotropium europaeum</i>	1 to 15 cm diam	1.2 to 1.6	SA only	For use in summer fallows only. Add 275g/ha diuron (900g/kg WG) herbicide to enhance control of larger weeds.
			15 to 30 cm diam	1.6 to 2.4		

NORTHERN AUSTRALIA – FULL DISTURBANCE

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments
	Common Name	Botanical Name				
NORTHERN AUSTRALIA	Seedling Grasses (not regrowth or rhizomes)		2 to 3 leaf	0.8 to 1.2		
DIRECT DRILLING with full combine as an aid in the establishment of crops including:	Barnyard grass	<i>Echinochloa spp.</i>	4 leaf to early tiller	1.2 to 1.6		
	Buffel grass	<i>Cenchrus ciliaris</i>				
	Columbus grass	<i>Sorghum x alatum</i>				
	Johnson grass	<i>Sorghum halepense</i>				
	Liverseed grass	<i>Urochloa panicoides</i>	mid to fully tillered	1.6 to 2.4		
	Mossman River grass	<i>Cenchrus echinatus</i>				
	Paradoxa grass	<i>Phalaris paradoxa</i>				
	Rhodes grass	<i>Chloris gayana</i>				
	Summer grass	<i>Digitaria ciliaris</i>				
	Sweet summer grass	<i>Brachiaria eruciformis</i>				
	Volunteer barley	<i>Hordeum vulgare</i>				
	Volunteer wheat	<i>Triticum aestivum</i>				
	Wild oats	<i>Avena ludoviciana</i>				
		<i>Avena fatua</i>				
	Sorghum	<i>Sorghum bicolor</i>	2 to 3 leaf only	0.8 to 1.2		
Maize	Stink grass	<i>Eragrostis ciliaris</i>	2 to 3 leaf only	0.8 to 1.2		
					Qld, Nthn NSW, NT only	Refer to Crop Establishment Procedure 7a. Apply in 50 to 100L of clean water/ha. Avoid spraying under hot dry conditions. Best results will be obtained when spraying is carried out in humid conditions or in the late evening. In a typical mixed weed situation use the rate recommended for the growth stage of the hardest-to-kill weed species. Rates shown are for optimum conditions and for sowing equipment with wide points and cultivating tynes. Under less favourable conditions or where spraying is delayed or where narrow points are fitted, use higher rates in the range 1.6 to 2.4 L/ha. TANK MIX: see compatibility Section. + For control of larger weeds prior to cereals add 0.5 to 1.0 L/ha 2,4-D amine (500g/L). Refer to relevant label for plant-back period.

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments
	Common Name	Botanical Name				
Millet	<u>Seedling Broadleaved weeds</u>					
Mungbeans						
Navy beans	African Turnip weed	<i>Sisymbrium thellungi</i> +				
Peanuts	Annual saltbush	<i>Atriplex muelleri</i>				
Pigeon peas	Australian Bindweed	<i>Convolvulus erubescens</i>				
Safflower	Australian Bluebell	<i>Wahlenbergia gracilis</i>				
Sorghum	Blackberry Nightshade	<i>Solanum nigrum</i>				
Soybeans	Bathurst Burr	<i>Xanthium spinosum</i>				
Sunflower	Bellvine	<i>Ipomoea plebeia</i>				
	Black Pigweed	<i>Trianthema portulacastrum</i>				
	Bladder Ketmia	<i>Hibiscus trionum</i>				
	Caltrop	<i>Tribulus terrestris</i>				
	Caustic weed	<i>Euphorbia spp</i>				
	Climbing Buckwheat	<i>Polygonum convolvulus</i>				
	Cowvine	<i>Ipomoea lonchophylla</i>				
	Cudweeds	<i>Gnaphalium spp</i>				
	Deadnettle	<i>Lamium amplexicaule</i>				
	European Bindweed	<i>Convolvulus arvensis</i>				
	Faithen	<i>Chenopodium album</i>				
	Fireweed	<i>Senecio madagascariensis</i>				
	Fleabanes	<i>Conyza spp</i>				
	Fumitory	<i>Fumaria spp</i>				
	Hogweed	<i>Zaleya galericulata</i>				
	Malvastrum	<i>Malvastrum americanum</i>				
	Mexican Poppy	<i>Argemone spp</i>				
	Mintweed	<i>Salvia reflexa</i>				
	Mungbean	<i>Vigna radiata</i>				
	Native Rosella	<i>Abelmoschus ficulneus</i>				

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments
	Common Name	Botanical Name				
	New Zealand Spinach	<i>Tetragonia tetragonoides</i>	4 to 8 leaf	1.6 to 2.4		
	Noogoora Burr	<i>Xanthium pungens</i>	8 to 12 leaf	2.4		
	Parthenium weed	<i>Parthenium hysterophorus</i>				
	Peppercress	<i>Lepidium spp</i>				
	Phyllanthus	<i>Phyllanthus spp</i>				
	Prickly Lettuce	<i>Lactuca serriola</i>				
	Prickly Paddymelon	<i>Cucumis myriocarpa</i>				
	Red Pigweed	<i>Portulaca oleracea</i>				
	Rhynchosia	<i>Rhynchosia australis</i>				
	Sesbania pea +	<i>Sesbania cannabina</i> +				
	Sida	<i>Sida spp</i>				
	Smooth cucumber	<i>Cucumis spp</i>				
	Soft Roly Poly	<i>Salsola kali</i>				
	Sowthistle	<i>Sonchus spp</i>				
	Soybean	<i>Glycine max</i>				
	Spiny Emex	<i>Emex australis</i>				
	Sunflower +	<i>Helianthus annuus</i> +				
	Thornapple	<i>Datura spp</i>				
	Variegated Thistle	<i>Silybum marianum</i>				
	Wild gooseberry	<i>Physalis minima</i>				
	Native Jute	<i>Corchorus trilocularis</i>	1 to 4 leaf	1.2 to 1.6		
			4 to 8 leaf	1.6 to 2.4		
	Annual Ground Cherry	<i>Physalis angulata</i>	1 to 4 leaf	1.2 to 1.6		
	Turnip weed	<i>Rapistrum rugosum</i>	1 to 4 leaf	1.2 to 1.6		
	Boggabri weed	<i>Amaranthus Mitchellii</i>	1 to 8 leaf	0.8 to 1.2		
	Hexham Scent +	<i>Melilotus indicus</i> +	1 to 8 leaf	0.8 to 1.2		
	Wild carrot	<i>Daucus glochidiatus</i>	1 to 8 leaf	0.8 to 1.2		
	Speedy weed	<i>Flaveria australasica</i>	1 to 8 leaf	0.8 to 1.2		

NORTHERN AUSTRALIA – FALLOW / MINIMUM DISTURBANCE

Crop / Situation	Weeds Controlled	Growth Stage	Rate L/ha	State	Critical Comments
	Common Name Botanical Name				
NORTHERN AUSTRALIA	<u>Seedling Grasses</u> (not regrowth or rhizomes)	2 leaf to pre tillering	1.2 to 1.6	Qld, Nthn NSW, NT only	Refer to Crop Establishment Procedures 5, 6 or 7b as appropriate to the particular situation.
DIRECT DRILLING with minimum disturbance or	Barnyard grass <i>Echinochloa spp.</i> Liverseed grass <i>Urochloa panicoides</i> Paradoxa grass <i>Phalaris paradoxa</i> Stink grass <i>Eragrostis cilianensis</i> Volunteer barley <i>Hordeum vulgare</i> Volunteer wheat <i>Triticum aestivum</i> Wild oats <i>Avena ludoviciana</i> <i>Avena fatua</i>	early tillering	1.6 to 2.4		In a typical mixed weed situation use the rate recommended for the growth stage of the hardest-to-kill weed species. Rates shown are for optimum conditions and for row crop and no-till planters. Under less favourable conditions or where spraying is delayed or for fallow weed control, use higher rates in the range 1.6 to 2.4 L/ha. Apply in 50 to 100L of clean water per ha.
FALLOWS cultivated or non-cultivated as an aid in establishing or maintaining a fallow or the establishment of crops including:					Avoid spraying under hot dry conditions. Best results will be obtained when spraying is carried out in the evening or in humid conditions.
Broadacre crops - Winter Cereals (Wheat, Barley, Oats, Rye, Triticale) Chickpeas					+ For control of larger weeds prior to cereals add 0.5 to 1.0 L 2,4-D amine (500g/L) – refer to relevant label for plant back period. TANK MIX: see Compatibility section.
Broadacre crops - Summer Cotton Maize Millet Mungbeans Safflower Sorghum					

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments
	Common Name	Botanical Name				
Soybeans	Seedling Broadleaved weeds					
Sunflower	Bathurst Burr	<i>Xanthium spinosum</i>				
	Bellvine	<i>Ipomoea plebeia</i>				
	Black pigweed	<i>Trianthema portulacastrum</i>				
	Bladder Ketmia	<i>Hibiscus trionum</i>				
	Caltrop	<i>Tribulus terrestris</i>				
	Fathern	<i>Chenopodium album</i>				
	Fireweed	<i>Senecio madagascariensis</i>				
	Fumitory	<i>Fumaria spp</i>				
	Mintweed	<i>Salvia reflexa</i>				
	Mungbean +	<i>Vigna radiata</i> +				
	New Zealand Spinach	<i>Tetragonia tetragonoides</i>				
	Prickly Paddymelon	<i>Cucumis myriocarpus</i>				
	Sesbania pea +	<i>Sesbania cannabina</i> +				
	Smooth cucumber	<i>Cucumis spp</i>				
	Sunflower +	<i>Helianthus annuus</i> +				
	Thornapples	<i>Datura spp</i>				
	Wild gooseberry	<i>Physalis minima</i>				
	Volunteer cotton (including Roundup Ready cotton)	<i>Gossypium hirsutum</i>	5 to 9 leaf	2.4 to 3.2		
	Boggabri weed	<i>Amaranthus mitchellii</i>				
	Hexham scent +	<i>Melilotus indicus</i> +				
	Wild carrot	<i>Daucus glochidiatus</i>				
	Phyllanthus	<i>Phyllanthus spp</i>				

Crop / Situation	Weeds Controlled		Growth Stage	Rate L/ha	State	Critical Comments
	Common Name	Botanical Name				
As an aid in post harvest weed control – after winter cereals	Volunteer Barley	<i>Hordeum vulgare</i>	1 to 4 leaf	1.6 to 2.4		Refer to Procedure 5. Do not spray under hot, dry conditions or when weeds are covered with dust and/or trash. Application is best carried out following rain.
	Volunteer wheat	<i>Triticum aestivum</i>				
	Bladder Ketmia	<i>Hibiscus trionum</i>				
	Milk Thistle	<i>Sonchus oleraceus</i>				
	New Zealand Spinach	<i>Tetragonia tetragonoides</i>				

SUGAR CANE

Crop / Situation	Weeds Controlled Common Name Botanical Name	Growth Stage	Rate L/ha	State	Critical Comments
NORTHERN AUSTRALIA	<u>Seedling Grasses</u> <u>(not regrowth or rhizomes)</u>	2 leaf to pre-tillering	1.2 to 1.6	Qld, Nthn NSW, NT only	SUGAR CANE: prior to planting or for establishing or maintaining a fallow – refer to Procedure 6. and following Cultivated fallow – where seedling weeds have recently germinated, are growing well are up to 10cm high use rates of 1.6 to 2.4 L/ha in a spray volume of 150 to 200 L water /ha plus a wetter such as BS 1000 at 120mL/ha.
SUGAR CANE STABLISHMENT AND FALLOWS PRIOR TO SUGARCANE PLANTING	Barnyard grass <i>Echinochloa spp.</i> Liverseed grass <i>Urochloa panicoides</i> Stink grass <i>Eragrostis ciliaris</i>	early tillering mature annual grasses *	1.6 to 2.4 2.4 to 3.2 *		
Cultivated or non-cultivated	<u>Seedling Broadleaved weeds</u>	1 to 4 leaf	1.6 to 2.4		* Non-cultivated fallow – to control mature dense stands of annual weeds use rates of 2.4 to 3.2 L/ha in a spray volume of 400L water/ha plus a wetter such as BS 1000 at 120mL/ha.
As an aid in establishing sugar cane or controlling weeds in a fallow prior to sugar cane	Bathurst Burr <i>Xanthium spinosum</i> Bellvine <i>Ipomoea plebeia</i> Black pigweed <i>Trianthema portulacastrum</i> Bladder Ketmia <i>Hibiscus trionum</i> Caltrop <i>Tribulus terrestris</i> Fathen <i>Chenopodium album</i> Fumitory <i>Fumaria spp</i> Mintweed <i>Salvia reflexa</i> Mungbean <i>Vigna radiata</i> New Zealand Spinach <i>Tetragonia tetragonoides</i> Prickly Paddymelon <i>Cucumis myriocarpa</i> Sesbania pea <i>Sesbania cannabina</i> Smooth cucumber <i>Cucumis spp</i> Thornapples <i>Datura spp</i> Wild gooseberry <i>Physalis minima</i>	Mature broadleaf weeds *	2.4 to 3.2 *		Control can be improved with the addition of an enhanced rate of diuron 900 WG (500g to 1kg/ha) and if vine weeds are present add 2,4-D amine. A split application of Pacific Diquat/Paraquat 250 10 to 12 days apart will also improve control of tall dense weeds. Only use 110° flat fan nozzles equivalent to Spraying Systems 03 for 200 L/ha and 04 for 250 to 400 L/ha. When dense weed growth is present implement penetration and the resulting seedbed may be improved if cultivation commences 4 to 5 days after spraying. Best results will be obtained when spraying is carried out in the evening or in humid conditions. TANK MIX: see Compatibility section.
	Phyllanthus <i>Phyllanthus spp</i>	1 to 8 leaf	1.6 to 2.4		
		mature broadleaf weeds *	2.4 to 3.2 *		

SUGARCANE

Crop / Situation	Weeds Controlled Common Name . Botanical Name	Weed Growth Stage	Rate L/ha	State	Critical Comments
SUGARCANE – PLANT & RATOON	<u>Most Seedling Broadleaf weeds including</u>	Up to 5 cm high	1.2 to 1.6	Qld, NSW & WA only	Apply as a broadcast spray over-the-top of plant cane up to 3 to 4 leaf stage or ratoon cane up to 10 cm high. Cane foliage will be scorched but new leaves will appear in 7 to 10 days. In plant cane between the 3 to 4 leaf stage and the formation of the true stem use a directed interspace spray. The Irvin boom is the most suitable equipment to avoid excessive drift onto cane foliage while spraying at the bases of plant and ratoon cane.
	Sicklepod <i>Senna obtusifolia</i>	Up to 50 cm high	1.2 to 1.6		After the formation of the true stem, which is resistant to Pacific Diquat/Paraquat 250, the sprayer height can be raised to overlap the spray pattern to give weed control in the stool. Use the higher rate for dense more mature weeds. Pacific Diquat/Paraquat 250 can be mixed with atrazine herbicide to give residual weed control when used as a directed spray. It may also be mixed with high rates of diuron for residual control. To enhance the activity of Pacific Diquat/Paraquat 250 under favourable growing conditions and in open sunny conditions add 275 g/ha diuron (900g/kg WG) herbicide. Complete spray coverage is essential. For grasses and broadleaf weeds up to 5 cm high use a minimum of 250 L spray solution/ha, increase to 350 L/ha for weeds up to 10 cm high. Use a spray volume of 400 L/ha for dense mature weeds. Always add a wetter such as BS 1000 at 120mL per 100L of water.
	Bluetop <i>Ageratum houstonianum</i>	Up to 15 cm high	1.2 to 1.6		
	Phyllanthus <i>Phyllanthus spp.</i>	Up to 15 cm high	1.2 to 1.6		
	Calopo <i>Calopogonium mucunoides</i>	3 to 5 leaves	1.6 to 2.0		
	<u>Most Seedling Grasses including</u>	Up to 5 cm high	1.2 to 1.6 + 0.5 kg diuron (900g/kg WG)		
	Awnless barnyard grass <i>Echinochloa colona</i>				
	Summer grass <i>Digitaria ciliaris</i>				
	Guinea grass <i>Panicum maximum</i>				
	Hamil grass <i>Panicum maximum cv Hamil</i>				
	Green Summer grass <i>Brachiaria milliformis</i>				
	All above grasses	Up to 10cm high	1.2 to 1.6 + 1.0 kg diuron (900g/kg WG)		
	All above grasses	> 10cm high & seeding	1.6 + 2.8 to 3.9 kg diuron (900g/kg WG)		

COTTON

Crop / Situation	Use	State	Rate L/ha.	Critical Comments
COTTON Dryland and moisture stressed	Desiccant to aid harvest	QLD, NSW only	1.2 to 1.6	Apply by ground rig only. Good spray coverage is essential. Apply in 50 to 100L of water per hectare. Use 5 hollow cone or 3 flat fan nozzles per row. Apply when at least 85% of bolls are open and remaining bolls are mature. Pacific Diquat/Paraquat 250 can damage immature green bolls.

LUCERNE

Crop / Situation	Weeds Controlled	State	Rate L/ha.	Critical Comments
LUCERNE Established (at least 1 year old)	most annual weeds including capeweed and Erodium	All States	1.6	Spray in autumn after weeds germinate. Graze the lucerne to reduce the height to 2 to 4 cm before spraying. Note: If required, grass, clover or lucerne seed can be direct drilled to increase desirable plant population.
- for improved grazing, hay or seed production or oversowing	most annual weeds including capeweed and Erodium		2.4	Spray in winter. Graze the lucerne to reduce the height to 2 to 4 cm before spraying. Note: If required, grass, clover or lucerne seed can be direct drilled to increase desirable plant population.
- for enhanced control of some broadleaf weeds	as above plus Paterson's Curse and Shepherd's Purse		2.4 + 1kg/ha diuron (900g/kg WG)	For improved control of Paterson' Curse and Shepherd's Purse mix with 1kg/ha diuron (900g/kg WG) in late winter. Do not use the tank mix if oversowing.
- for short term residual weed control	most annual weeds including capeweed and Erodium, Paterson's Curse and Shepherd's Purse		2.4 + 1.9kg/ha diuron (900g/kg WG)	For short term residual control, tank mix with 1.9kg/ha diuron (900g/kg WG) in late winter. Length of control may be shorter on heavy soils or under irrigation. Do not use the tank mix if oversowing. WARNING -- continued use of Pacific Diquat/Paraquat 250 alone in certain areas, has resulted in the selection of resistant barley grass, <i>Hordeum glaucum</i> , <i>H. leporinum</i> , capeweed and Silver grass, <i>Vulpia spp.</i> Where resistant barley grass is confirmed it may be controlled with selective grass herbicides. The use of the tank mix with diuron will assist in control of resistant capeweed and Silver grass and is recommended as a general weed resistance strategy for lucerne..

PUBLIC SERVICE AREAS, TROPICAL TREE CROPS, VEGETABLES, POTATOES, ORCHARDS AND VINEYARDS

Crop / Situation	Weeds Controlled	State	Rate L		Critical Comments
			High Volume or Power sprayer	Per ha	
Per 100L (spot spray)					
Public Service Areas, Rights-of-Way, Market Gardens and Nurseries, Orchards (including bananas), Vineyards, and Forests – Ring weeding around trees with brown bark and strip spraying in orchards and vineyards	Most annual grasses and broadleaf weeds	All states	2.4 to 3.2 L (a) see below	240 to 320 mL (b) see below	<p>Thoroughly wet plant foliage. Use the high rate for dense more established weed growth. Repeat treatment on regenerated green perennial weeds (such as Paspalum and Docks) while plants are weakened from previous treatment. Addition of oxyfluorfen (240g/L) at 250 mL/ha will improve control of Small Flowered Mallow, Evening Primrose and other weeds sensitive to oxyfluorfen. Refer to the oxyfluorfen label.</p> <p>Note: Spot spray rate assumes 1000L water/ha. For lower water volumes increase dilution rate as below:</p> <p>Water volume 250 L/ha: use 960 to 1280mL/100L</p> <p>Water volume 500 L/ha: use 480 to 640mL/100L</p> <p>Water volume 750 L/ha: use 320 to 430mL/100L</p> <p>OR measure how much spray is required to cover an area of 100 square metres using your normal application volume. Your dilution rate is 24 to 32mL of Pacific Diquat/Paraquat 250 in this volume.</p>
Pre-crop emergence weed control (vegetable crops)					<p>Prepare seedbed as long as possible before sowing to permit maximum weed germination. Spray the weeds, wait until they have dried off and then sow. If further weed germinations occur before crop emerges, spray again but at least 3 days before crop emerges. Spray when weeds are growing vigorously and not covered with soil or dust, or wilting due to dry conditions. When rain follows dry conditions allow 7 days for weed growth to commence before spray application.</p> <p>See Note on Spot spray rate above.</p>
Long term weed control					<p>Pacific Diquat/Paraquat 250 can be mixed with soil residual herbicides: diuron, atrazine, simazine (For further information see General Instructions)</p> <p>See Note on Spot spray rate above.</p>
Potatoes - weed control - weed destruction prior to digging			3.2 L (a) see below	320 mL (b) see below	<p>After planting and hilling up, wait until 10 to 25% of potato shoots are emerged then blanket spray with Pacific Diquat/Paraquat 250. Emerged potato shoots will suffer a marginal leaf burn but will quickly recover. See Note on Spot spray rate above.</p> <p>Spray 3 to 7 days before digging after all tops have died down.</p> <p>See Note on Spot spray rate above.</p> <p>Note: DO NOT use Pacific Diquat/Paraquat 250 for potato haulm desiccation.</p>

Avocados, Custard apples, Lychees, Mangoes	Most annual grasses and perennial broadleaf weeds and grasses	All States		120 to 240 mL (b) see below	Apply to the ground cover underneath trees from summer to autumn prior to harvest. A second spray may be required 14 days later to control growth not controlled by the initial spray. See Note on Spot spray rate above. WARNING: Avoid spray drift onto trees.
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Wetting Agent:

- (a) If volume of water applied exceeds 200L/ha add 120mL BS 1000 per 100L of additional water
- (b) Add 100mL BS 1000 per 100L

RICE, ESTABLISHED PASTURE, GRASSES

Crop / Situation	Weeds Controlled	State	Rate L/ha	Critical Comments
Rice Do not apply if rice has emerged	Annual weeds	NSW only	1.6 to 3.2	Refer to direct drilling Procedure – Rice 2.
	Annual weeds including Barnyard grass		1.7 to 2.2	On rice stubbles after burning.
	Clover control		2.2 plus 500mL dicamba (200g/L)	Well grazed clover dominant pasture.
	Annual pasture		3.2	Pasture not properly managed. Use 100L/ha water per 2cm growth.
Kikuyu/paspalum Pastures	To suppress growth to over sow winter feed.	NSW only	2.4	Spray in autumn after grazing or slashing to 2 - 4cm.
			3.2	For early spraying (February or March) or if lightly grazed.
Established Pastures Perennial grass crops, cocksfoot, perennial ryegrass, Phalaris and Demeter fescue	Control of annual weeds including capeweed and Erodium for improved grazing, hay or seed production	NSW, Vic, SA, WA & Tas only	1.6	Spray in autumn (4 weeks after the break) to mid winter. Only spray stands that are at least 12 months old. Graze pastures to maintain length between 2 - 4cm (sub-clover should be past 6 true leaf stage).
			2.4	Spray in late winter. Only spray in stands that are at least 12 months old. Continuously graze pasture to maintain length 2 – 4cm.
Pasture Improvement	To increase the perennial grass and/or the sub clover or white clover content of the pasture.	Vic, NSW, Tas, SA, & WA only	1.2	Spray in winter. Sub-clover should be at least 6 true leaf stage. Only suppresses annual weeds (All States except Western Australia) and perennial weeds (Western Australia)
Grasses (particularly annual ryegrass)	To control grass seed set (SprayTop technique)	WA & SA only	Boom Spray: 800mL/ha in a minimum of 50L clean water	Apply at the end of growing season. HEAVILY GRAZE paddocks during the spring flush to prevent early seed heads emerging. REMOVE all stock about 3 weeks before the end of the growing season to allow seed heads to emerge evenly. Set boomspray at a height to give double overlap spray pattern AT THE TOP of the pasture being sprayed.
			1.5	HAY FREZING for maximum retention of protein for summer grazing.
Duboisia	Annual weeds	Qld and NT only	2.4 to 3.2 or Spot Spraying 240-320 mL per 100L	Apply as directed spray onto weeds around Duboisia plants. This treatment is most effective when applied to young weed seedlings. Product may be mixed with simazine or diuron or applied alone. Thoroughly wet foliage. It is essential to obtain good leaf/coverage and spray volumes of 50-200 L/ha are recommended, depending on density of weed cover. Refer to General Instructions for addition of wetter.
Tea-trees (Melaleuca alternifolia)	Grasses and broadleaf weeds	NSW only	1.6 – 3.2	Apply immediate after harvest to desiccated weeds. Avoid drift to unharvested areas.

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

FOR USE ONLY AS AN AGRICULTURAL HERBICIDE. THIS PRODUCT IS TOO HAZARDOUS TO BE USED IN THE HOME GARDEN.

WITHHOLDING PERIOD:

DO NOT GRAZE OR CUT SPRAYED VEGETATION FOR STOCK FOOD FOR AT LEAST 1 DAY OR GRAZE HORSES FOR 7 DAYS AFTER APPLICATION.

REMOVE STOCK FROM TREATED AREAS 3 DAYS BEFORE SLAUGHTER.

COTTON – DO NOT HARVEST EARLIER THAN 7 DAYS AFTER APPLICATION.

GENERAL INSTRUCTIONS

Pacific Diquat/Paraquat 250 quickly kills a wide range of annual grasses, broadleaf weeds and some perennial grasses when sprayed directly onto the leaves. The active ingredients are rapidly and tightly absorbed by clay and silt particles in the soil and do not leave any effective soil residues. Thus crops sown immediately after spraying are not affected by the chemicals, nor are weed seeds, which germinate after spraying.

Where insect pests are anticipated use recommended insecticide treatment. Regular checks should be made before and after sowing.

Suitable residual herbicides can be tank mixed with Pacific Diquat/Paraquat 250 to provide extended in-crop weed control in fallows and subsequent crops. Read label recommendations of the respective residual herbicides prior to use, and observe precautions against use of residual herbicides before planting susceptible crops. See compatibility statement on this label for compatibility of Pacific Diquat/Paraquat 250 with other herbicides.

RESISTANT WEEDS WARNING

Pacific Diquat/Paraquat 250 Herbicide is a member of the bipyriddy group of herbicides. Pacific Diquat/Paraquat 250 has the inhibitor of photosynthesis at Photosystem I mode of action. For weed resistance management Pacific Diquat/Paraquat 250 is a Group L herbicide.

Some naturally occurring weed biotypes resistant to Pacific Diquat/Paraquat 250 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 used repeatedly.

These resistant weeds will not be controlled by Pacific Diquat/Paraquat 250 or other Group L herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Pacific Agriscience Pty Ltd accepts no liability for any losses that may result from the failure of Pacific Diquat/Paraquat 250 to control resistant weeds.

Mixing

The recommended rate of Pacific Diquat/Paraquat 250 should be added to water in the spray tank and agitated to give even mixing. Agitate again if left standing.

Water Volume

It is essential to obtain good leaf coverage with spray and the following volumes are recommended:

Winter rainfall areas	Boomspray	Summer rainfall areas a: weed stage and density
Plant height up to 2cm	50 to 100L/ha	Small plants (2 to 5 leaf) and well separated.
Plant height up to 2 to 5cm	100 to 150L/ha	5 leaf to early tiller/rosette: 30-50% ground cover.
Plant height up to 6 to 10cm	150 to 200L/ha	Advanced growth, dense and/or tall weed stands.
Above 10cm	Use split application to remove excess growth Use 150L/ha	Very dense and tall weed growth.

Note:

- (1) If the volume is increased above 100L/ha additional wetter should be added at the rate of 120mL of BS 1000 per 100L water.
- (2) Water should be clean and free from clay, silt and algae. Providing it meets this requirement, saline water, water collected from roofs, bore water, dam water and water from creeks may be used.

Application

Boomspray

Use only through a properly calibrated boom spray that should be fitted with flat fan jets and adjusted to a height to give at least double overlap of the spray at the top of the weeds being sprayed. Spraying pressures should be in the range of 240-280 kPa. Speed of travel should be in the range of 6 to 10

km/hr. It is essential that a good marking system be used. If a disc marker is used, it must be mounted so as to turn the soil back on to the area sprayed.

Direct Drilling - Procedure 1.

Use of Pacific Diquat/Paraquat 250 Herbicide in crop establishment with no working before sowing.

Step	Critical Comments
1. Burn	If possible crop stubble or pasture trash should be burnt early to avoid problems at sowing. Can also promote weed seed germination.
2. Shallow cultivation – optional	Should be carried out on opening rains to a depth of no more than 2 cm. This will encourage early even germination of weeds particularly annual grasses.
3. Heavy graze paddocks continuously from germination	This prepares the paddock for spraying by keeping the pasture short and open and at the same time restricts the development of the weed roots, which will assist seedbed formation.
4. Remove stock 2 to 3 days before spraying	Allow the weeds to freshen up – important for maximum uptake of Pacific Diquat/Paraquat 250. Spraying can, however, take place immediately after stock removal provided there is sufficient leaf cover and the pasture is not dusty.
5. Spray with a boom sprayer	Accurate application and full spray cover are essential to give weed control. Note limitations as outlined under 'Directions for Use'.
6. Sow 3 to 5 days after spraying	A rigid tyne spring release combine is preferred to ensure adequate penetration. Points should not be worn. The combine must be level and set to work 3 to 5 cm and sow seed at recommended depth. Use standard seed and fertiliser rates. When harrowing is considered necessary use trailing harrows. Sowing can commence one hour after spraying and should be completed within 7 days. Where heavy weed growth is present a better seedbed will result if sowing is delayed for 3 to 5 days.

Direct Drilling (Sod Seeding) in Rice - Procedure 2.

Step	Critical Comments
1. Graze pasture heavily	Allow pasture to green up before spraying, generally 1 week. Watering may be required. Where rice follows a cereal crop, the stubbles should be burnt well in advance of the anticipated date of sowing to allow weeds to germinate prior to spraying.
2. Spray the paddock before or after direct drilling	Use 1.6 to 3.2L Pacific Diquat/Paraquat 250 per hectare. Use 1.7 to 2.2 L/ha for weeds, particularly Barnyard Grass, on rice stubbles after burning. Use 2.2 L/ha for well-grazed pastures plus 500mL dicamba (200g/L) per hectare as a tank mix for clover dominant pastures. Up to 3.2 L/ha may be required where the pasture has not been properly managed prior to spraying. Use approximately 100L clean water /ha per cm growth.
3. Direct Drill Rice	Drill at 2 to 3 cm depth within a few hours of spraying. Do not delay for more than a few days after spraying. Spraying may be carried out after drilling.

Crop Establishment with Cultivation AFTER Spraying - Procedure 3.

Step	Critical Comments
1. Graze paddocks continuously from germination	This prepares the paddock for spraying by keeping the pasture short and open and at the same time restricts the development of the weed roots, which will assist seedbed formation.
2. Remove stock 2 to 3 days before spraying	Allows the weeds to freshen up – important for maximum uptake of Pacific Diquat/Paraquat 250. Spraying can take place immediately after stock removal provided there is sufficient leaf cover and pasture is not dusty.
3. Spray with a boom spray	Accurate application and full spray cover are essential to give weed control. Note limitations as outlined under 'Directions for Use'.
4. Cultivate	Between 1 hour and 7 days after spraying. When dense weed growth is present implement penetration and resulting seedbed may be improved if cultivation commences 3 to 5 days after spraying. It is not necessary to cultivate deeper than sowing depth. Use scarifier or combine with heavy harrows.
5. Sow	Sow at the recommended seed and fertiliser rates and depth.

Crop Establishment with a Cultivation BEFORE Spraying - Procedure 4.

Step	Critical Comments
1. Graze	Graze pasture or stubble to keep growth of weeds down to a minimum following the autumn break.
2. Cultivate 4 to 6 weeks prior to the anticipated sowing date	Cultivate after autumn rains when conditions are suitable to produce a seedbed and before heavy weed growth develops. A scarifier and heavy harrows should be used with the aim of killing existing weed growth and leaving the seedbed in a level condition. It is not necessary to cultivate deeper than the sowing depth.
3. Wait	Wait 4 to 6 weeks to allow a full germination of weeds. Graze if necessary.
4. Remove stock 2 to 3 days before spraying	Allow the weeds to freshen up – important for maximum uptake of Pacific Diquat/Paraquat 250.
5. Spray with a boom sprayer	Accurate application and full spray cover are essential to give weed control. Note limitations as outlined under 'Directions for Use'.
6. Sow	Between one hour and 7 days after spraying, sow crop in the normal manner. Sow at recommended seed and fertiliser rates and depth. Note: Where heavy weed growth is present at spraying, a better seedbed will result if sowing is delayed for 3 to 5 days.

Note: for on the farm advice and assistance, contact your dealer.

CONTROL OF WEEDS AFTER CROP HARVEST AND IN CULTIVATED AND NON-CULTIVATED FALLOWS – NORTHERN NEW SOUTH WALES AND QUEENSLAND ONLY.

Use of Pacific Diquat/Paraquat 250 for Weed Control After Cereal Harvest - Procedure 5.

New Zealand Spinach, Bladder Ketmia and Milk Thistle are often present after cereal harvest. They can be controlled by the application of 1.6 to 2.4 litres/hectare of Pacific Diquat/Paraquat 250 in at least 100 litres of clean water/ha. Use a properly calibrated boom sprayer. Ensure that the boom is set for double overlap at the top of the weed canopy.

The weed species must be free from dust and actively growing. They should not be shielded from the spray by stubble or trash. The use of a straw spreader at harvest is recommended.

Use of Pacific Diquat/Paraquat 250 for the Control of Weeds During the Fallow - Procedure 6.

Weeds must be controlled during the fallow to conserve moisture. While cultivation can eliminate weeds it also exposes the soil to moisture loss. In addition, repeated cultivations destroy soil structure, reduce organic matter and stubble cover. This leads to the formation of hard pans, soil crusts and increases the risk of erosion. Under moist soil conditions weeds are frequently transplanted and not killed, weed growth holds the soil in clods.

Pacific Diquat/Paraquat 250 herbicide provides an economical and reliable alternative for fallow weed control.

For use in fallows to be planted to sugar cane and for weed control prior to planting sugar cane, refer to the specific section of this label.

a) Seedling weeds

Seedling weeds should be sprayed with 1.0 to 3.2 /ha of Pacific Diquat/Paraquat 250 in 50 to 100 litres of clean water (see Directions for Use table). Some difficult to control weeds may require a second application 7 to 21 days later, or control may be assisted by a following cultivation.

b) Advanced Weed Growth

While some advanced weeds will be controlled by a single application of Pacific Diquat/Paraquat 250 many species will require a follow-up cultivation to complete the kill. Pacific Diquat/Paraquat 250 rapidly desiccates plant material and causes weed roots to loosen their grip on the soil. The results are improved incorporation of plant material, a reduced number of large clods and a more reliable weed kill even in moist soil. Use the recommended rates of Pacific Diquat/Paraquat 250 in 100 to 200 litres of clean water.

Control of Transplanted Weeds

Weeds transplanted by unsuccessful cultivation present an extremely difficult problem. If there is a risk that cultivation will result in weeds being transplanted (particularly under moist soil conditions) it is recommended that the weeds be sprayed with Pacific Diquat/Paraquat 250 prior to cultivation (see previous section). Weeds partly covered by soil and clods provide poor conditions for successful chemical weed control. The best results will be achieved by allowing the weeds to make some regrowth to provide adequate chemical targets. Apply the highest

rate of Pacific Diquat/Paraquat 250 preferably spraying in the late afternoon or early evening.

Use of Pacific Diquat/Paraquat 250 for the Control of Seedling Weeds Immediately Before Sowing - Procedure 7.

a) Sowing with full disturbance (full combine)

The cultivation action of the combine aids in weed kill. Use 0.8 to 2.4 litres of Pacific Diquat/Paraquat 250 depending upon weed species (see Directions for Use table). Sowing should commence within 7 days of spraying.

b) Sowing with minimum disturbance (row crop, no-till planters)

A higher rate of Pacific Diquat/Paraquat 250 is recommended due to the absence of cultivation. Use 1.2 to 3.2 litres per hectare in Southern Australia; 1.0 to 3.2 litres per hectare in Northern Australia (Qld, Nthn NSW & NT only).

COMPATIBILITY

Pacific Diquat/Paraquat 250 is compatible with any one of the following herbicides: metsulfuron-methyl, atrazine, dicamba, 2,4-D, diuron, metolachlor, chlorsulfuron, oxyfluorfen, paraquat, triasulfuron, clopyralid, MCPA, diquat, simazine, imazethapyr, pendimethalin, oryzalin, trifluralin. Tank mixes with 2,4-D and MCPA formulations should not be more concentrated than 2 parts Pacific Diquat/Paraquat 250 to 1 part 2,4-D or MCPA.

Refer to the manufacturers label for specific details on compatibility and weed control. Mixtures with more than one product may not be compatible and should be checked in a jar test first. Physical compatibility does not guarantee biological compatibility.

Pacific Diquat/Paraquat 250 is compatible with any one of the following insecticides: alpha-cypermethrin, phosmet, lambda-cyhalothrin, omethoate, bifenthrin.

Pacific Diquat/Paraquat 250 is compatible with BS 1000 surfactant.

Pacific Diquat/Paraquat 250 is not compatible with copper, zinc or manganese sulphates.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions or from spraying equipment that 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. This formulation should not be applied on or near water, which is used for livestock watering.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used container. This formulation should not be applied on or near water, which is used for human consumption, livestock watering or irrigation purposes or water used for commercial or recreational fishing.

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool, well-ventilated area locked room or a place away from children, animals, food, feedstuffs, seed and fertilisers. The method of disposal of the container depends on the container type. Read the Storage and Disposal Instructions on the label that is attached to the container.

SAFETY DIRECTIONS

Very dangerous, particularly the concentrate. Product is poisonous if absorbed by skin contact, inhaled or swallowed. Will irritate eyes, nose, throat and skin. Attacks the eyes. Protect eyes while using. Avoid contact with eyes, skin and clothing. DO NOT inhale spray mist. When opening the container and preparing product for use 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, half face piece respirator or disposable respirator.

If clothing becomes contaminated with product, or wet with spray, remove contaminated clothing immediately.

If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Avoid contact with spray mist. DO NOT inhale spray mist. 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, respirator and if rubber wash with detergent and warm water, face shield or goggles and contaminated clothing.

SPRAY APPLICATION

Do not work in spray mist.

Do not continue to use if skin irritation or nose bleed occurs. This may be caused by exposure to spray mist as the result of incorrect use of equipment or adverse climatic conditions. Stop and review handling and spraying techniques before further spraying. If symptoms persist seek medical advice. When there is a risk of exposure to spray mist wear waterproof footwear and waterproof protective clothing, impervious gauntlet length gloves (rubber or PVC), goggles and a face mask and respirator covering nose and mouth and capable of filtering spray droplets. A high efficiency type particulate respirator is recommended but in any event use a respirator that complies with the requirements of AS1716 (Standards Association of Australia). Further advice on safety equipment should be obtained from a safety equipment manufacturer.

Avoid contacting vegetation wet with spray but if necessary to do so wear waterproof footwear and waterproof protective clothing and gloves.

FIRST AID

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

Note for Physicians: For additional advice on the treatment of paraquat poisoning please consult the booklet 'Paraquat Poisoning: A Practical Guide to Diagnosis, First Aid and Hospital Treatment'.

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet that can be obtained from the supplier.

EXCLUSION OF LIABILITY

This product as supplied is of a high grade and suitable for the purpose for which it is expressly intended and must be used in accordance with the directions. The user must monitor the performance of any product as climatic, geographical or biological variables and/or developed resistance may affect the results obtained. No responsibility is accepted in respect of this product, save for those non-excludable conditions implied by the Trade Practices Act or any State or Federal legislation.

UN No. 3016	BIPYRIDIUM PESTICIDE, LIQUID, TOXIC, N.O.S. (contains paraquat and diquat)
PG III HAZCHEM 2 X	In a Transport Emergency DIAL 000 Police or Fire Brigade

TOXIC

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