

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

QA
2,4-D Ester 680

HERBICIDE

ACTIVE CONSTITUENT:

680 g/L 2,4-D present as the 2 ETHYLHEXYL ESTER

GROUP 4 HERBICIDE

A specially formulated low volatile herbicide for selective control of various weeds in crops, pastures and non-agricultural areas as per the directions for use table.

THIS IS A PHENOXY HERBICIDE THAT CAN CAUSE SEVERE DAMAGE TO NATIVE VEGETATION AND SUSCEPTIBLE CROPS SUCH AS COTTON, GRAPES, TOMATOES, OILSEED CROPS AND ORNAMENTALS.

APVMA Approval No.: 90831/149903

EC Formulation Type
**Emulsifiable
Concentrate**

**BE PROUDLY
AUSTRALIAN**

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 **QUANTUM
AGROSCIENCES**

DIRECTIONS FOR USE

RESTRAINTS

DO NOT exceed maximum application rate of 6.6 L/ha (4500 g ae/ha).

DO NOT exceed the maximum daily application rate by backpack spraying of 5.9 L/day.

DO NOT apply if heavy rains or storms are forecast within 3 days.

DO NOT irrigate to the point of runoff for at least 3 days after application.

DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.

Additional USAGE restrictions apply in some crops, states and seasons, see restriction tables 1, 2, 3, 4 and 5.

SPRAY DRIFT RESTRAINTS

DO NOT apply by a vertical sprayer.

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift.

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometers per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

BOOM SPRAYERS

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets are not smaller than a VERY COARSE spray droplet size category
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for boom sprayers') are observed.

Buffer zones for boom sprayers						
Application rate	Boom height above the target canopy	Mandatory downwind buffer zones				
		By Stander Areas	Natural aquatic areas	Polinator Areas	Vegetation areas	Livestock Areas
Up to 800 mL (560 g ae/ha)	0.5 m or lower	0 meters	10 metres	0 meters	25 metres	0 metres
	1.0 m or lower		40 metres		55 metres	
Up to 1.7 L (1150 g ae/ha)	0.5 m or lower		30 metres		35 metres	
	1.0 m or lower		60 metres		100 metres	
Up to 2.4 L (1620 g ae/ha)	0.5 m or lower		30 metres		45 metres	
	1.0 m or lower		80 metres		140 metres	
Up to 4.7 L (3180 g ae/ha)	0.5 m or lower		50 metres		100 metres	
	1.0 m or lower		160 metres		375 metres	
Up to 6.6 L (4500 g ae/ha)	0.5 m or lower		75 metres		150 metres	
	1.0 m or lower		Not supported		Not supported	

AIRCRAFT

DO NOT apply by aircraft unless the following requirements are met:

- Spray droplets are no smaller than a VERY COARSE spray droplet size category.
- For maximum release heights above the target canopy of 3 m or 25% of wingspan or 25% of rotor diameter whichever is the greatest, minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for aircraft') are observed.

Buffer zones for aircraft						
Application rate (/ha)	Aircraft type	Mandatory buffer zones (distances given in metres)				
		Bystander Areas	Natural Aquatic Areas	Pollinator Areas	Vegetation Areas	Livestock Areas
Up to 820 mL (560 g ae/ha)	Fixed wing	0	120	0	170	0
	Helicopter		85		120	
Up to 1.7L (1150g ae/ha)	Fixed wing		190		300	
	Helicopter		130		190	
Up to 2.4 L (1620 g ae/ha)	Fixed wing		240		400	
	Helicopter		160		240	
Up to 4.7 L (3180 g ae/ha)	Fixed wing		Not Supported		Not Supported	
	Helicopter		275		400	
Up to 6.6 L (4500 g ae/ha)	Fixed wing		Not Supported		Not Supported	
	Helicopter		350		625	

Table 1: Timing restrictions for spraying peanuts			
Situation	Rate (L/ha)	Region	Timing Restriction
			DO NOT APPLY DURING THE MONTHS
Broadcast spraying, prior to sowing (peanuts)	Up to 1.3L/ha	Cape York	October and November
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	No timing restrictions
		Burdekin	October
		Mackay/Whitsunday	September to December
		Mary/Burnett	October to November
		SE Queensland	August to May
	Up to 1.6 L/ha	Cape York	October and November
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	No timing restrictions
		Burdekin	October
		Mackay/Whitsunday	August to December
Mary/Burnett	September to November		
SE Queensland	Use not supported		
Band spraying, post-sowing pre-emergence (peanuts)	Up to 1.6 L/ha	Queensland dryland	No timing restrictions
		Cape York	No timing restrictions
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	No timing restrictions
		Burdekin	No timing restrictions
		Mackay/Whitsunday	No timing restrictions
		Mary/Burnett	No timing restrictions
		SE Queensland	October to January

Broadcast spray, post-sowing pre-emergence (peanuts)	Up to 3.3 L/ha	Queensland dryland	June to August
		Cape York	October and November
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	October to December
		Burdekin	September and October
		Mackay/Whitsunday	August to December
		Mary/Burnett	April to January
		SE Queensland	Use not supported

Table 2: Application and timing restrictions for application to pastures						
DO NOT apply above maximum rate (L/ha) below OR label rate, whichever is LOWEST						
	State	Summer	Autumn	Winter	Spring	
Pastures (prior to sowing, conservation tillage)	Queensland & NT	4.7	4.7	4.7	4.7	
	New South Wales & ACT	4.7	4.7	4.7	4.7	
	Victoria	0.5	1.5	4.7	1.5	
	Tasmania	0.5	1.1	3.3	1.5	
	South Australia	1.1	1.5	4.7	3.3	
	Western Australia	1.5	3.3	4.7	3.3	
	State	Summer	Autumn	Winter	Spring	
Pastures (established)	Queensland & NT	6.6	6.6	6.6	6.6	
	New South Wales & ACT	6.6	6.6	6.6	6.6	
	Victoria	0.9	1.8	6.6	3.3	
	Tasmania	0.6	1.5	4.7	2.9	
	South Australia	1.3	2.9	6.6	4.7	
	Western Australia	3.3	4.7	6.6	4.7	

Table 3: Timing restrictions for spraying SUGARCANE			
Situation	Rate (L/ha)	Region	Timing Restriction DO NOT APPLY DURING THE MONTHS
	Up to 1.2 L/ha	All	No timing restriction
	Up to 2.4 L/ha	Wet Tropics	No timing restriction
		Burdekin	October
		Mackay/Whitsunday	September to December
		Mary/Burnett	August to December and April to May
		Northern NSW	No timing restriction

Table 4: Application restrictions for TURF		
DO NOT apply above maximum rate (L/ha) below OR label rate, whichever is LOWEST		
	State	Rate (L/ha)
Turf	Queensland & NT	2.9
	New South Wales & ACT	2.9
	Victoria	2.3
	Tasmania	2.3
	South Australia	2.3
	Western Australia	3.7
If applying to golf courses in Tasmania, DO NOT apply to fairways adjacent to natural water bodies.		

Table 5: Risk mitigation measures for Dryland cropping, pre-emergent uses	
Situation	Risk mitigation measures
Dryland cropping, Preparatory spray	Only apply in no-till farming systems (Tasmania, South Australia)
Winter cereals, pre-emergence uses	Only apply in no-till farming systems (Tasmania, South Australia, Western Australia)
Summer cereals, pre-emergent uses	Only apply in no-till farming systems (Tasmania, South Australia)

Table 1. Field Crops		
SITUATION AND CROP	WEEDS CONTROLLED	STATE
Wheat, Barley	Refer to Weed Table	Vic only
		SA only
		QLD, NSW, ACT only
		TAS only
		WA only
Triticale		QLD, NSW, ACT only
		SA only
		VIC only
Cereal Rye		QLD, NSW, ACT only
		VIC only
Sugar Cane		QLD, NSW only
Stubble/Fallow Spray Prior to Direct Drilling or Sowing. Winter Cereals, Grain Legumes (Peanuts QLD, NT only), Canola		All States
Harvest Aid or Salvage Spray – - Winter Cereals	Broadleaf Weeds Refer to Weed Table	All States
Potatoes Pre-harvest Preparation	Broadleaf Weeds such as Clover, Variegated Thistle and Cruciferous weeds	VIC, TAS only

RATE/ha	CRITICAL COMMENTS
210 - 800 mL	<p>CROP STAGES: ALL CEREALS</p> <p>Variations between varieties do occur. Check sensitivity and growth stages of varieties before applying. Damage may result if applied too early.</p> <p>VIC only: Apply at tillered to boot stages.</p> <p>NSW, ACT only: Apply after when the first node can be felt at the base of a tiller and before swelling of the head can be felt in a tiller.</p> <p>QLD only: Apply from mid-tillering (5 to 6 fully emerged main stem leaves plus one or more tillers) to before boot stage (visible swelling of the head at the top of the main stem).</p> <p>SA, TAS only: Apply from completion of tillering to early jointing stage.</p> <p>WA only: Apply from the 5 leaf stage up to jointing stage (Zadoks 15 - 33). Apply only at 6 leaf stage for Cranbrook and Jacup wheats (Zadok 16) to avoid possible damage.</p> <p>Post-emergence.</p> <p>Observe the plant back periods given in the table in this leaflet. Must be tank mixed with a knockdown herbicide such as QA Glyphosate 450 Herbicide, paraquat or paraquat/diquat mixtures. Select appropriate rate from the weed table.</p> <p>For Skeleton Weed, spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.</p> <p>Apply after dough stage of crop. Interval between application and effectiveness is 10-20 days. For desiccation of green matter, estimate harvest date and apply spray approximately 14 days earlier. Rain between spraying and actual harvest can negate results.</p> <p>Note: Where thistles are tall and branching above the crop, spraying can turn the branches down into the crop, presenting more stalks to cause header comb blockages. Spraying may increase seed contamination of harvest by accelerating maturity. DO NOT use with undersown legumes that have not set seed.</p> <p>Apply approximately 4 to 5 weeks before harvest after the potato haulms have dried off. Use the highest rate where weeds are more than 30 cm in height. For boom spraying at least 100 litres of spray mixture per hectare. If grasses such as Rye Grass and Winter Grass are also present add Amitrole* T Herbicide.</p>
230 - 800 mL	
410 - 800 mL	
620 - 800 mL	
800 mL	
410 - 800 mL	
240 - 820 mL	
210 - 800 mL	
410 - 800 mL	
210 - 800 mL	
1.15 - 2.4 L	
210 - 800 mL	
1.7 L	
1.15 - 2.4 L	

Table 2. Pastures and non-agricultural use.		
SITUATION AND CROP	WEEDS CONTROLLED	STATE
Improve Pasture containing Clovers	Refer to Weed Table	QLD, NSW, ACT, TAS, SA only
Pastures – Non legumes, Rights of Way & Industrial		QLD, NSW, ACT, TAS, SA only
		VIC only
Pastures – Direct Drilling or Surface Sowing	Charlock, Clover, Medics, Mustards, Paterson's Curse, Saffron, Slender, Variegated and Spear Thistles, Turnip Weed, Wild Radish, Wild Turnip	QLD, NSW, ACT, VIC, TAS, SA, WA only
	As Above plus: Capeweed, Wireweed, Storksbill/Erodium, Flatweed, Horehound (seedlings), Skeleton Weed, Nodding or Star Thistles.	
	St John's Wort	
	All of above plus grasses	
Table 3. Spot Spraying		
SITUATION AND CROP	WEEDS CONTROLLED	STATE
Spot Spraying	Refer to Weed Table	ALL STATES

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

IN TASMANIA, THIS PRODUCT MAY ONLY BE USED FROM 15 APRIL TO 15 SEPTEMBER UNLESS OTHERWISE PERMITTED BY THE REGISTRAR OF PESTICIDES.

WITHHOLDING PERIOD (WHP):

PASTURES, CEREAL CROPS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

CROP HARVEST WITHHOLDING PERIOD NOT REQUIRED WHEN USED AS DIRECTED.

RATE/ha	CRITICAL COMMENTS
410 - 800 mL	Clover must be well covered by the grass or extensive damage may result.
800 mL - 4.7 L	Control of most perennial weeds, but due to the rooting habits of most species control may take a number of years. Damage may result to legumes in pasture.
800 mL - 6.5 L	Boom spray.
70 - 620 mL/100 L	Spot spraying.
800 mL - 1.5 L (Aerial Application)	Applying to young, actively growing weeds. Sowing: DO NOT sow pasture seed for at least 21 days after application. If soil moisture is dry, delay sowing for at least 30 days.
800 mL - 1.5 L (Ground Application)	
3.3 - 4.7 L (Aerial or Ground)	
As above plus 2,2 DPA sodium salt or glyphosate	
RATE/ha	CRITICAL COMMENTS
1/100th of rate on Weed Table per 10 L water.	Each 10 L of mix will cover per 100 m ² (1/100th ha) e.g. if rate in weed table is 1.4 L use 14 mL/10 L water. Apply through Knapsack. Thorough wetting of weed is essential.

WEED TABLE									
NOTE: Where weeds are to be sprayed in a CROP or PASTURE, use only the rates given for the crop in the table below. In most cases this will give control, however some hard to kill weeds or those in advanced stages of growth may only be suppressed eg Rumex spp. (Docks) and Polygonum spp. (Wireweed, Climbing Buckwheat) are killed to ground level only.									
APPLICATION RATE PER HECTARE									
WEEDS CONTROLLED	Crop						Pasture – Non Legume		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW,ACT, TAS, SA, QLD, WA only	
Amaranthus spp.	-	-	-	800 mL	-	-	-	-	
Angled Onion	-	-	-	-	-	-	3.3 L	0.8 - 1.7 L	Spray when buds are forming or early flowering
Apple Sodom	-	-	-	-	-	-	-	2.9 - 3.3 L	
Bathurst Burr	-	-	-	800 mL	-	-	1.7 - 3.3 L	1.7 - 3.3 L	Spray from seedling to pre-flowering. Use higher rate as plant matures.
Black Knapweed	-	-	-	-	-	-	3.3 L	-	Spray before flowering. DO NOT cultivate these infestations.
Buffalo Burr	-	-	-	-	-	-	-	800 mL - 1.5 L (Not Qld & WA)	Spray from seedling to pre-flowering. Use higher rate as plant matures.
California Burr	-	-	-	800 mL	-	-	1.7 - 3.3 L	1.15 - 1.7 L (Not SA)	Spray from seedling to pre-flowering. Use higher rate as plant matures.

WEEDS CONTROLLED	Crop						Pasture – Non Legume		CRITICAL COMMENTS	
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW,ACT, TAS, SA, QLD, WA only		
Caltrop	-	-	-	620 mL - 800 mL	-	-	1.7 - 3.3 L	-	Spray from seedling to pre-flowering. Use higher rate as plant matures.	
Cape Tulip	-	-	-	-	-	-	1.15 L	3.3 L	1.7 - 3.3 L	Spray before flowering.
Capeweed	800 mL	800 mL	800 mL	530 - 800 mL	-	-	-	2.5 - 3.3 L	Spray up to rosette stage.	
Charlock	410 mL	410 mL	800 mL	410 mL	-	-	-	800 mL	Spray up to rosette stage.	
Clover	-	-	-	620 mL - 800 mL	-	-	-	800 mL		
Colocynth	-	-	-	-	-	-	3.3 L	-	Spray at seedling stage only.	
Deadnettle	-	-	-	800 mL	-	-	-	-		
Devil's Claw	-	-	-	800 mL	-	-	1.3 L	1.15 - 1.7 L (Not SA)	Spray prior to pods forming.	
Dock	800 mL	800 mL	-	-	800 mL	800 mL	-	1.7 - 2.5 L	Spray at rosette stage to kill top growth only.	
Fat Hen	-	-	-	410 - 800 mL	-	-	-	-		
Flatweed	-	-	-	800 mL	-	-	-	2.5 - 3.3 L		
Fumitory (red)	-	800 mL	-	800 mL	-	-	-	2.5 - 3.3 L	Spray up to rosette stage.	
Fumitory (white)	800 mL	410 mL	-	800 mL	-	-	-	2.5 - 3.3 L	Spray up to rosette stage.	
Galvanised Burr	-	-	-	-	-	-	4.7 L	4.7 L (Not Qld & WA)	Spray from seedling to pre-flowering.	

WEEDS CONTROLLED	Crop						Pasture – Non Legume		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW,ACT, TAS, SA, QLD, WA only	
Goosefoots	-	-	-	800 mL	-	-	-	-	
Hard Head or Russian Knapweed	-	-	-	-	-	-	3.3 - 5.2 L	-	Spray before flowering.
Hogweed, Wireweed	800 mL	800 mL	-	800 mL	800 mL	-	-	1.15 - 1.7 L (Not SA)	Spray up to rosette stage.
Hoary Cress, Whiteweed	-	800 mL	800 mL	800 mL	-	-	1.7 - 3.3 L	1.7 - 2.1 L	Spray from late rosette to pre-flowering.
Horehound (seedlings)	-	800 mL	-	-	-	840 mL	-	1.7 - 3.3 L	Late Autumn to early Spring.
Ironweed, Corn Gromwell	-	-	-	-	800 mL	-	-	1.15 - 1.7 L	
Khaki Weed	-	-	-	-	-	-	-	800 mL - 1.15 L (Not SA)	Spray young seedlings only.
Lincoln Weed	-	800 mL	-	-	-	-	-	-	Autumn spray before sowing improves control.
London Rocket	-	-	-	-	-	570 mL	-	1.6 - 2.5 L (WA only)	
Lupins	800 mL	-	-	410 - 800 mL	-	-	-	-	Spray up to rosette stage.
Melilotus/ Hexham Scent	800 mL	800 mL	-	-	800 mL	-	-	1.15 - 1.7 L	Spray up to rosette stage.
Melons – camel, paddy	-	-	-	410 - 800 mL	-	-	-	-	
Mustards	330 mL	230 - 800 mL	800 mL	410 - 900mL	620 mL	620 mL	3.3 L	1.7 - 2.5 L	Spray up to rosette stage.

WEEDS CONTROLLED	Crop						Pasture – Non Legume		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW,ACT, TAS, SA, QLD, WA only	
Mexican Poppy	-	2.3 - 3.5 L	-	800 mL	-	840 mL	-	800 mL - 1.15 L (1.1 - 1.5 L WA only)	Spray rosette stage and before flowering.
Mintweed	-	-	-	800 mL	620 mL	-	-	800 mL - 1.15 L	Spray active seedlings only.
Muskweed	800 mL	-	-	-	-	-	-	-	Spray up to rosette stage.
New Zealand Spinach	-	-	-	800 mL	-	-	-	-	
Noogoora Burr	-	-	-	800 mL	-	-	1.7 - 3.3 L	1.7 - 3.3 L	Spray seeling to pre-flowering.
Nut Grass	-	-	-	-	-	-	3.3 - 5.2 L	-	Spray within 4 weeks of foliage emergence, repeat spray necessary.
Paterson's Curse	-	-	-	800 mL	-	840 mL	1.7 - 3.3 L	800 mL - 1.7 L (1.15 - 1.5 L WA only)	Spray seedling to rosette stage.
Poppy Wild	410 mL	-	-	-	-	-	-	2.1 - 2.9 L	Spray up to rosette stage.
Ragwort	-	-	-	-	-	-	3.3 L	3.3 L	Spray at rosette to cabbage stage.
Rapeseed	800 mL	-	-	410 - 800 mL	-	-	-	-	Spray up to rosette stage.
Rapistrum	-	-	-	-	-	570 mL	-	840 mL (WA only)	
Rough Poppy	-	410 mL	-	410 - 800 mL	-	-	-	800 mL	Spray young seedlings only.

WEEDS CONTROLLED	Crop						Pasture – Non Legume		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW,ACT, TAS, SA, QLD, WA only	
St. John's Wort	-	-	-	-	-	-	3.3 - 5.2 L	3.3 - 4.7 L	Spray before flowering. Spray before plants are 40 cm high.
Safflower	-	-	-	410 - 800 mL	-	-	-	-	
Sand Mustard/ Sand Rocket	-	-	-	-	-	-	3.3 L	-	Spray before flowering.
Shepherd's Purse	-	-	-	800 mL	-	-	-	-	
Silver Leaf Nightshade	-	-	-	-	-	-	3.3 L	-	Spray at flowering. Fallow land: controls top growth only.
Skeleton Weed	-	800 mL	-	800 mL	-	-	3.3 L	1.15 - 1.7 L	Spray rosettes before aerial growth commences.
Stingless Nettle (Deadnettle)	-	800 mL	800 mL	-	-	-	-	2.1 - 2.5 L	
Stinging Nettle	800 mL	-	-	-	-	-	-	-	Spray up to rosette stage.
Stinkwort	-	-	-	800 mL	-	-	1.7 - 3.3 L	1.7 - 3.3 L	Spray younger plants. Use higher rate as plants mature.
Storksbill/ Erodium	-	-	-	800 mL	-	-	-	-	
Sunflower Seedlings	800 mL	-	-	410 - 800 mL	620 mL	-	-	-	Spray multiple leaves.

WEEDS CONTROLLED	Crop						Pasture – Non Legume		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW,ACT, TAS, SA, QLD, WA only	
Thistles:									
- Golden	-	-	-	-	-	-	3.3 L	3.3 L	Spray at rosette stage.
- Nodding	-	-	-	-	-	-	3.3 L	1.15 - 1.7 L	Spray at rosette stage to pre-flowering.
- Saffron	620 mL	800 mL	-	410 - 800 mL	800 mL	800 mL	800 mL - 1.7 L	840 mL - 3.3 L (WA only)	Spray up to rosette stage.
- Sheep	-	-	-	-	-	840 mL	-	840 mL - 3.3 L (WA only)	
- Slender, Shore	-	-	800 mL	800 mL	-	-	1.7 - 3.3 L	800 mL - 3.3 L	Spray at rosette stage.
- Soldier	-	-	-	-	-	-	3.3 L	-	Spray at rosette stage
- Spear	800 mL	-	800 mL	-	-	-	800 mL - 2.5 L	1.15 - 2.1 L	Spraying at seedling to rosette stage. Use higher rate as plants mature (pastures).
- Stemless	-	-	-	-	-	-	3.3 L	2.5 - 3.3 L	Spray at rosette stage to flowering.
- St Barnaby's	-	-	-	-	-	-	-	1.15 - 1.7 L	
- Star	-	-	-	800 mL	-	-	1.7 - 3.3 L	1.15 - 1.7 L	Spraying at seedling to rosette stage. Use higher rate as plants mature.

WEEDS CONTROLLED	Crop						Pasture – Non Legume		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW,ACT, TAS, SA, QLD, WA only	
- Variegated	-	-	800 mL	410 - 800 mL	620 mL	-	800 mL - 2.5 L	800 mL - 3.3 L	Spray at rosette stage. Can cause stock poisoning.
Thornapple	-	3.5 L	-	410 - 800 mL	-	-	3.3 L	800 mL - 1.7 L	Spray at seedling stage.
Tree Hogweed	800 mL	-	-	-	-	-	-	-	Spray up to rosette stage.
Turnip Weed	-	410 mL	-	410 - 800 mL	410 mL	620 mL	-	800 mL	Spray seedling only.
Vetches/Tares	800 mL	620 mL	800 mL	-	-	-	-	-	
Wards Weed	-	410 mL	-	-	-	-	-	-	Spray at seedling stage.
Wild Cabbage	800 mL	-	-	-	-	-	-	-	Spray up to rosette stage.
Wild Garlic only	-	-	-	-	-	-	6.6 L	-	Suppresses aerial growth.
Wild Mignonette	-	-	-	-	-	840 mL	3.3 L	-	Spray at rosette stage.
Wild Mustard	-	-	-	-	-	570 mL	-	1.6 - 2.5 L (WA only)	
Wild Radish	800 mL	800 mL	800 mL	410 - 800 mL	800 mL	570 mL	-	800 mL (840 mL WA only)	Spray up to rosette stage.
Wild Sage	-	-	-	-	-	-	-	2.5 - 3.3 L	
Wild Teasel	-	-	-	-	-	-	1.7 - 3.3 L	-	Spray at rosette stage. Use higher rate as plants mature.
Wild Turnip	210 mL	230 mL	800 mL	410 - 800 mL	-	400 mL	-	800 mL (840 mL WA only)	Spray up to rosette stage.

Plant back days for QA 2,4-D ESTER 680 HERBICIDE			
CROP	RATES		
	Up to 510 mL/ha	510 mL-1 L/ha	1-1.6 L/ha
Balansa Clover	7	7	10
Barley ¹	1	1	3
Chickpeas ²	7	14	21
Cotton	10	14	21
Faba Beans	7	7	10
Field Peas	7	14	14
Lentils	7	7	10
Linseed	7	7	14
Lucerne	7	7	10
Lupins ⁴	7	14	21
Medics	7	7	10
Narbon Beans	7	7	10
Navy Beans	10	10	14
Oats	3	3	7
Perennial Ryegrass	7	7	10
Persian Clover	7	7	10
Phalaris	7	7	10
Canola/Rapeseed ²	14	21	28
Rice	7	7	14
Safflower ²	7	14	21
Sorghum ³	3	7	10
Soybean	14	14	21
Sub-Clover	7	7	10
Sunflower ³	7	10	14
Triticale ¹	1	3	7
Vetch	7	7	10
Wheat ¹	1	3	7
White Clover	7	7	10

IMPORTANT: WHEN APPLIED TO DRY SOILS AT LEAST 15 mm (½ inch) OF RAIN MUST FALL PRIOR TO THE COMMENCEMENT OF THE PLANT BACK PERIOD.

Notes:

1. In Queensland, no rainfall is required to fall prior to commencement of Plant Back Period for wheat, barley and triticale.
2. In Queensland, planting of canola/rapeseed, chickpeas and safflower must be delayed for at least 14 days following rainfall at least 15 mm.
3. In Central Queensland, when using 730 mL/ha or less of QA 2,4-D Ester 680 Herbicide, the Plant Back Period for sorghum and sunflower is 1 day irrespective of rainfall.
4. In WA the Plant Back Period for lupins at all rates is 28 days.

GENERAL INSTRUCTIONS

Before opening, carefully read Directions for Use, Precautionary Statements, Safety Directions and First Aid Instructions.

APPLICATION INFORMATION

This product may be used in either high or low volume sprays. Just pour into water and stir.

Boom Spraying: Use 30 - 100 litres water per hectare.

Aerial Spraying: Use 40 - 90 litres water per hectare.

Note: Refer to the Department of Agriculture/Primary Industries in your state for the current restricted spraying areas.

EQUIPMENT MAINTENANCE AND USAGE

Keep the spray unit for herbicides only if possible. Otherwise wash out the unit with hot soapy water followed by several clear water rinses. DO NOT use wooden spray vats as they cannot be cleaned.

Hoses cannot be cleaned and new hoses should be fitted when the unit is to be used for any other purpose.

COMPATIBILITY

This product can be tank mixed with 500 g/L Dicamba Herbicide, Chlorsulfuron 750 WG Herbicide, Paraquat, 2,2 DPA sodium salt, Atrazine 900 WG, Glyphosate 450 Herbicide, Metsulfuron 600 WG, Triasulfuron 750 WG, paraquat/diquat mixtures, 600 g/L Triclopyr, 200 g/L Fluroxypyr.

TANK MIXING INSTRUCTIONS

- Fill the tank ¼ full with water and agitate.
- Add wettable powders and water dispersible granules first.
- Agitate until these are uniformly dispersed, while adding water until the tank is 90% full.
- Add suspension concentrates (flowables) then soluble concentrates. Add emulsifiable concentrates last.
- Top up the tank with water and continue agitation until all the ingredients are properly mixed.
- Observe any mixing sequence instructions specifically stated on the tank mix products.

RESISTANT WEEDS WARNING

QA 2,4-D Ester 680 Herbicide is a member of the Phenoxy group of herbicides. QA 2,4-D Ester 680 Herbicide has the Disruptors of plant cell growth mode of action. For weed resistance management QA 2,4-D Ester 680 Herbicide is a Group 4 Herbicide. Some naturally-occurring weed biotypes resistant to QA 2,4-D Ester 680 Herbicide and other Group 4 Herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are use repeatedly. These resistant weeds will not be controlled by QA 2,4-D Ester 680 Herbicide or other Group 1 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Quantum Agrosiences Holdings Pty Ltd accepts no liability for any losses that may result from the failure of QA 2,4-D Ester 680 Herbicide to control resistant weeds.

GROUP	4	HERBICIDE
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RE-ENTRY PERIOD

DO NOT hand harvest sugar cane for at least 1 day after application.

If re-entering treated areas before the spray has dried, workers should wear overalls, elbow-length gloves and water-resistant footwear. Clothing must be laundered after each day's use.

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.

Avoid spray drift and vapour movement onto susceptible crops such as cotton, tobacco, tomatoes, vines, lupins, fruit trees and ornamentals.

PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

INTEGRATED PEST MANAGEMENT

Toxic to beneficial arthropods. Not compatible with integrated pest management (IPM) programs utilising beneficial arthropods. Minimise spray drift to reduce harmful effects on beneficial arthropods in non-crop areas.

STORAGE AND DISPOSAL

Store in the original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple-rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. DO NOT burn empty containers or product.

For Refillable containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with the eyes and skin. When opening the container and preparing spray or using undiluted concentrate, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length chemical resistant gloves, goggles and half face piece respirator with organic vapour/gas cartridge or canister. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves. If applying by hand wear half facepiece respirator with organic vapour/gas cartridge or canister. If product in eyes, wash it out immediately with 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, 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 13 11 26.

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet (SDS) which is available from the supplier.

CONDITIONS OF SALE: Quantum Agrosiences Holdings Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Quantum Agrosiences Holdings Pty Ltd's skill or judgement in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Quantum Agrosiences Holdings Pty Ltd has any authority to add to or alter these conditions.

Additional information required under the Globally Harmonised System (GHS) classification of the substance/ mixture: **Very toxic to aquatic life with long lasting effects.**

Avoid breathing mist, vapours or spray. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before re-use. Collect Spillage.



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