

POISON

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

Adama

2,4-D LV 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 specified in 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

Formulation type

Emulsifiable
Concentrate



ADAMA

adama.com

CONTENTS: 20 L, 110 L, 1000 L

DIRECTIONS FOR USE

GENERAL RESTRAINTS

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.

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 5.9L/day (4000 g ae/day).

DO NOT apply by vertical sprayer.

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

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 1.3 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	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

Situation	Rate (L/ha)	Region	Timing Restriction
			DO NOT APPLY DURING THE MONTHS
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					
Pastures (prior to sowing, conservation tillage)	State	Summer	Autumn	Winter	Spring
	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
Pastures (established)	State	Summer	Autumn	Winter	Spring
	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
Sugarcane	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: Risk mitigation measures for dryland cropping, pre-emergence 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-emergence uses	Only apply in no-till farming systems (Tasmania, South Australia)

SPRAY DRIFT RESTRAINTS

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 kilometres 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 (distances given in metres)				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 6.6 L/ha (4500 g ae/ha)	0.5 m or lower	0	75	0	150	0
	1.0 m or lower		Not supported		Not supported	
Up to 4.7 L/ha (3180 g ae/ha)	0.5 m or lower		50		100	
	1.0 m or lower		160		375	
Up to 2.4 L/ha (1620 g ae/ha)	0.5 m or lower		30		45	
	1.0 m or lower		80		140	
Up to 1.7 L/ha (1150 g ae/ha)	0.5 m or lower		30		35	
	1.0 m or lower		60		100	
Up to 820 mL/ha (560 g ae/ha)	0.5 m or lower		10		25	
	1.0 m or lower		40		55	

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 3m 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	Type of aircraft	Mandatory downwind buffer zones (distances given in metres)				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 6.6 L/ha (4500 g ae/ha)	Fixed wing	0	Not Supported	0	Not Supported	0
	Helicopter		350 metres		625 metres	
Up to 4.7 L/ha (3180 g ae/ha)	Fixed wing		Not Supported		Not Supported	
	Helicopter		275 metres		400 metres	
Up to 2.4 L/ha (1620 g ae/ha)	Fixed wing		240 metres		400 metres	
	Helicopter		160 metres		240 metres	
Up to 1.7 L/ha (1150 g ae/ha)	Fixed wing		190 metres		300 metres	
	Helicopter		130 metres		190 metres	
Up to 820 mL/ha (560 g ae/ha)	Fixed wing		120 metres		170 metres	
	Helicopter		85 metres		120 metres	

1. FIELD CROPS

Refer to section "Spray Applications and Drift Assessment" before application.

CROP & SITUATION	WEEDS CONTROLLED	STATE	RATE/HA	CRITICAL COMMENTS
Wheat, Barley	Refer to Weeds Table	Vic only	210-800 mL	Crop Stages: All Cereals Variations between varieties do occur. Check sensitivity and growth stages of varieties before applying. Damage may result if applied too early. Vic only: Apply at tillered to boot stages. 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. Qld only: Apply from mid-tillering (5-6 fully emerged main stem leaves plus 1 or more tillers) to before boot stage (visible swelling of the head at the top of the main stem). SA, Tas only: Apply from completion of tillering to early jointing stage. 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 (Zadoks 16) to avoid possible damage.
		SA only	230-800 mL	
		Qld, NSW, ACT only	410-800 mL	
		Tas only	620-800 mL	
		WA only	800 mL	
Triticale		Qld, NSW, ACT, only	410-800 mL	
		SA only	240-820 mL	
		Vic only	210-800 mL	
Cereal rye		NSW, Qld, ACT only	410-800 mL	
		Vic only	210-800 mL	
Sugarcane USAGE RESTRICTIONS APPLY. See Table 3: Timing restrictions for spraying sugarcane.		Qld, NSW only	1.15-2.4 L	Post-emergence.
Stubble/fallow spray prior to direct drilling or sowing, Winter cereals, Grain legumes (Peanuts QLD, NT only), Canola USAGE RESTRICTIONS APPLY. See Table 1: Timing restrictions for spraying peanuts and Table 4: Risk mitigation measures for dryland cropping, pre-emergent uses.		All States	210-800 mL	Observe the plant back periods given in the table in this leaflet. Must be tank mixed with a knockdown herbicide such as Trilogy®, Wipe-Out®, Spraytop® or SpraySeed®. Select appropriate rate from the weed table. For Skeleton Weed, spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.
Harvest aid or salvage spray - Winter cereals	Broadleaf weeds Refer to Weeds Table	All States	1.7 L	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. 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 under sown Legumes that have not set seed.
Potatoes Pre-harvest preparation	Broadleaf weeds such as Clover, Variegated Thistle and Cruciferous weeds	Vic, Tas only	1.15-2.4 L	Apply approximately 4-5 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 apply at least 100 L spray mixture per hectare. If grasses such as rye grass and winter grass are also present, add Amitrole T Herbicide.

2. PASTURES, NON-AGRICULTURAL, INDUSTRIAL USE

Refer to section "Spray Applications and Drift Assessment" before application.

CROP & SITUATION	WEEDS CONTROLLED	STATE	RATE/HA	CRITICAL COMMENTS
USAGE RESTRICTIONS APPLY. See Table 2: Application and timing restrictions for application to pastures.				
Improved Pasture containing Clover	Refer to Weed Table	Qld, NSW, ACT, Tas, SA only	410 - 800 mL	Clover must be well covered by the grass or extensive damage may result.
Pastures – Non legumes, Rights of Way and Industrial		Qld, NSW, ACT, Tas, SA, WA Only	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.
		Vic only	800 mL - 6.6 L	Boom spray.
			70 - 620 mL/100 L	Spot spraying.

CROP & SITUATION	WEEDS CONTROLLED	STATE	RATE/HA	CRITICAL COMMENTS
USAGE RESTRICTIONS APPLY. See Table 2: Application and timing restrictions for application to pastures.				
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	NSW, ACT, QLD, WA, Vic, SA, Tas only	800 mL - 1.5 L (aerial application)	Apply 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.
	As above plus: Capeweed, Wireweed, Storksbill/Erodium, Flatweed, Horehound (seedlings), Skeleton Weed, Nodding or Star Thistle		800 mL - 1.15 L (ground application)	Apply 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.
	St John's Wort		3.3 - 4.7 L (aerial or ground)	
	All of the above plus Grasses		As above PLUS Wipe-Out®, Trilogy® or 2,2-DPA	

3. SPOT SPRAYING

CROP & SITUATION	WEEDS CONTROLLED	STATE	RATE/HA	CRITICAL COMMENTS
Spot spraying (all situations)	Refer to Weed Table	All States	1/100 th of rate on Weed Table per 10 L water	Each 10 L of mix will cover 100 m ² (1/100 th 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.

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

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, e.g. *Rumex* spp. (Docks) and *Polygonum* spp. (Wireweed, Climbing Buckwheat) are killed to ground level only.

APPLICATION RATE PER HECTARE									
WEEDS CONTROLLED	CROP						PASTURES – NON LEGUMES		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW, Tas, SA, Qld, WA Only	
<i>Amaranthus</i> spp.	-	-	-	800 mL	-	-	-	-	
Angled Onion	-	-	-	-	-	-	3.3 L	0.8-1.7 L	Spray when buds forming or early flowering.
Apple of 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 - 1.15 L (Not Old & 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.
Caltrop	-	-	-	620-800 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	-	-	-	620-800 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	-	1.7-2.5L	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 Old & WA)	Spray from seedling to pre- flowering.
Goosefoots	-	-	-	800 mL	-	-	-	-	

APPLICATION RATE PER HECTARE									
WEEDS CONTROLLED	CROP						PASTURES – NON LEGUMES		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW, Tas, SA, Qld, WA Only	
Hard Head or Russian Knapweed	-	-	-	-	-	-	3.3-5.2L	-	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	410-800 mL	620 mL	620 mL	3.3 L	1.7-2.5 L	Spray up to rosette stage.
Mexican Poppy	-	2.3-3.5 L	-	800 mL	-	840 mL	-	800 mL-1.15 L (1.15-1.5 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 seedling 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.
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	-	-	3.3L	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.

APPLICATION RATE PER HECTARE									
WEEDS CONTROLLED	CROP						PASTURES – NON LEGUMES		CRITICAL COMMENTS
	VIC	SA	TAS	NSW, ACT	QLD	WA	VIC	NSW, 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 rosette stage to pre flowering.
- Saffron	620 mL	800 mL	-	410-800 mL	800 mL	800 mL	800 mL - 1.7 L	800 mL - 2.5 L	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	Spray at seedling to rosette stage. Use higher rate as plants mature (pastures).
- Stemless	-	-	-	-	-	-	3.3 L	2.5-3.3 L	Spray 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	Spray seedling to rosette stage. Use higher rate as plants mature.
- 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 seedlings 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	-	-	-	-	-	-	6.6 L	-	Suppresses aerial growth only.
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 ADAMA 2,4-D LV 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	3
Chickpeas #	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 *	7	14	21
Medics	7	7	10
Narbon Beans	7	7	10
Navybean	10	10	14
Oats	3	3	7
Perennial Ryegrass	7	7	10
Persian Clover	7	7	10
Phalaris	7	7	10
Canola / Rapeseed #	14	21	28
Rice	7	7	14
Safflower #	7	14	21
Sorghum @	3	7	10
Soybean	14	14	21
Sub-Clover	7	7	10
Sunflower @	7	10	14
Triticale %	1	3	7
Vetch	7	7	10
Wheat %	1	3	7
White Clover	7	7	10
IMPORTANT: WHEN APPLIED TO DRY SOILS AT LEAST 15 MM (1/2 INCH) OF RAIN MUST FALL PRIOR TO THE COMMENCEMENT OF THE PLANT BACK PERIOD.			

NOTES

- % In Queensland, no rainfall is required to fall prior to commencement of plant back period for wheat, barley and triticale.
- # In Queensland, planting of canola / rapeseed, chickpeas and safflower must be delayed for at least 14 days following rainfall of at least 15 mm.
- @ In Central Queensland, when using 730 mL/ha or less of 2,4-D LV ESTER 680, the plant back period for sorghum and sunflower is 1 day irrespective of rainfall.
- * In WA the plant back period for lupins at all rates is 28 days.

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

WITHHOLDING PERIODS

PASTURES, CEREAL CROPS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.
HARVEST WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.

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 10 - 90 litres water per hectare.

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

SPRAY APPLICATIONS AND DRIFT RISK MANAGEMENT

For aerial application it is recommended where possible for this product to be applied by an aerial applicator business that holds current accreditation for the Aerial Improvement Management System (AIMS), issued by the Aerial Application Association of Australia Ltd.

Checklist:

- Have you cleared/decontaminated your boom sprayer?
- Have you contacted your neighbours prior to spraying?
- Is your sprayer set-up correctly for the particular application?
- Check – boom calibration – at nozzle
 - nozzle choice – low drift/what spray quality – very coarse droplet?
 - boom height
 - speed or intended application
- You must check, determine and record the weather conditions immediately prior to, and immediately after the spray application is made.
- Record – Temperature
 - Relative Humidity
 - Delta T
 - Wind speed (min 3 km/hr, max 20 km/hr)
 - Is there a temperature inversion?
- Night Spraying – Extra care is required to ensure that inversion conditions are not present. Use smoke generator to determine wind direction and presence of inversion conditions.

When spraying in or near a cotton area, check online at crop.satamap.com.au for the proximity of cotton fields.

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.

TANK MIXING INSTRUCTIONS

Fill the spray tank 1/4 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 mix is 90% full. Add suspension concentrate (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.

COMPATIBILITY

This product can be tank mixed with Cutlass®, Tackle®, Spraytop®, diquat, 2,2-DPA, Farmozine®, Lynx®, Lonestar®, Trilogy®, Wipe-Out®.

RESISTANT WEEDS WARNING

ADAMA 2,4-D LV ESTER 680 Herbicide is a member of the Phenoxys group of herbicides.

GROUP **4** HERBICIDE

2,4-D LV ESTER 680 has the disruption of plant cell growth mode of action. For weed resistance management 2,4-D LV ESTER 680 is a Group 4 herbicide. Some naturally-occurring weed biotypes resistant to 2,4-D LV ESTER 680 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 used repeatedly. These resistant weeds will not be controlled by 2,4-D LV ESTER 680 or other Group 4 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Adama Australia accepts no liability for any losses that may result from the failure of 2,4-D LV ESTER 680 to control resistant weeds.

PRECAUTION

Re-Entry Period

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

PROTECTION OF CROPS, NATIVE AND 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.

Legume Tolerance: If clovers are present, care should be taken to ensure that they have reached the 3-4 leaf stage before spraying. Rates above 410 mL of this product per hectare will destroy most clovers, while lucerne and medics are susceptible at any strength.

PROTECTION OF HONEYBEES AND OTHER INSECT POLLINATORS

Low hazard to bees. May be applied as recommended at any time as recommended in the Directions for Use.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate streams, rivers or watercourses with the chemical 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 closed, 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.

drumMUSTER containers

This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemical on site. 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.

Envirodrum Micro Matic valve (110 L)

Do not tamper with the Micro Matic valve or the security seal. Do not contaminate the Envirodrum with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple-rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the Envirodrum to the point of purchase. The Envirodrum remains the property of Adama Australia.

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.

SDS

Additional information is listed in the safety data sheet (SDS). A safety data sheet for ADAMA 2,4-D LV ESTER 680 is available from adama.com or call Customer Service on 1800 423 262.

CONDITIONS OF SALE: The use of ADAMA 2,4-D LV ESTER 680 Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Adama Australia accepts no responsibility for any consequence whatsoever from the use of this product.

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