Australian Pesticides & Veterinary Medicines Authority

Product Name: Hemani 2,4-D LV Ester 680 Herbicide
APVMA Approval No: 96526/149650

Label Name:	Hemani 2,4-D LV Ester 680 Herbicide

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

Constituent Statements:	ACTIVE CONSTITUENT: 680 g/L 2,4-D present as the 2-ethylhexyl ester

Mode of Action:	GROUP 4 HERBICIDE

Statement of Claims:	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 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

Net Contents:	20 – 1000 L

Restraints:	This section contains file attachment.

Directions for Use:	This section contains file attachment.

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

Withholding Periods:	WITHHOLDING PERIOD 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

Trade Advice:	

General Instructions:	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/ha. Aerial Spraying: Use 40 - 90 Litres water/ha. 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 the following herbicides; 500 g/L dicamba, chlorsulfuron 750 WG, paraquat, 2,2 DPA sodium salt, atrazine 900 WG, glyphosate, metsulfuron 600 WG, triasulfuron 750 WG, paraquat/diquat mixtures, 600 g/L triclopyr, 200 g/L fluroxypyr. Tank Mixing Instructions • Fill the spray tank ¼ full with water and agitate. • Add wettable powders and water dispersible granules first. • Agitate until these are uniformly dispersed, whilst 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 instructions specifically stated on the tank mix products. • If tank mixture is left overnight, agitate thoroughly prior and during application.

Resistance Warning:	RESISTANT WEEDS WARNING GROUP 4 HERBICIDE Hemani 2,4-D LV 680 Herbicide is a member of the Phenoxys group of herbicides. Hemani 2,4-D LV 680 Herbicide has the Disruptors of Plant Cell Growth mode of action. For weed resistant management Hemani 2,4-D LV 680 Herbicide is a Group 4 herbicide. Some naturally-occurring weed biotypes resistant to Hemani 2,4-D LV 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 used repeatedly. These resistant weeds will not be controlled by Hemani 2,4-D LV 680 Herbicide or and other Group 4 Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Hemani Australia Pty Ltd accepts no liability for any losses that may result from the failure of Hemani 2,4-D LV 680 Herbicide to control resistant weeds.

Precautions:	PRECAUTIONS DO NOT hand harvest sugarcane for at least 1 day after application. 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.

Protections:	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. PROTECTION OF WILDLIFE, FISH, CRUSTACEANS 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:	STORAGE AND DISPOSAL Store in the closed, original container in 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 for appropriate disposal 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 (200 &1000L only) Store in the closed, original container in a dry, cool, well-ventilated area. 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. 110L Mini Bulk Returnable Container Store the original sealed 110L container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the MicroMatic valve or the security seal. DO NOT contaminate the container with water or any other foreign matter. After each use of the product ensure the MicroMatic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the 110L container have been used, please return the empty container to the point of purchase. The 110L container remains the property of Hemani Australia Pty Ltd.

Safety Directions:	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 Instructions:	FIRST AID INSTRUCTIONS If poisoning occurs, contact a doctor, or Poisons Information Centre. Phone Australia 13 11 26; New Zealand 0800 764 766.

First Aid Warnings:	

RESTRAINTS

DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.
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 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 (4000 g ae/day).
Additional USAGE restrictions apply in some crops, states and seasons, see restriction Tables 1, 2, 3, 4 and 5.

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
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 Applications to Pastures

Situation	State	Rate L/ha			
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	4.4	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	
	Up to 2.4 L/ha	Wet Tropics	No timing restrictions
		Burdekin	October
		Mackay / Whitsunday	September to December
		Mary / Burnett	August to December and April to May
		Northern NSW	No timing restrictions

Table 4. Application Restrictions for Turf

Situation	State	Rate L/ha
DO NOT apply above maximum rate (L/ha) below OR label rate, whichever is LOWEST		
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-emergent 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)

SPRAY DRIFT RESTAINTS

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 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 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.

Boom Sprayer Application

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 (/ha)	**Boom Height above target canopy**	**Mandatory buffer zones** (distances given in metres)				
		Bystander Areas	**Natural Aquatic Areas**	**Pollinator Areas**	**Vegetation Areas**	**Livestock Areas**
Up to 800 mL (560 g ae/ha)	0.5m or lower	0 metres	10	0 metres	25	0 metres
	1.0m or lower		40		55	
Up to 1.7L (1150g ae/ha)	0.5m or lower		30		35	
	1.0m or lower		60		100	
Up to 2.4 L (1620 g ae/ha)	0.5m or lower		30		45	
	1.0m or lower		80		140	
Up to 4.7 L (3180 g ae/ha)	0.5m or lower		50		100	
	1.0m or lower		160		375	
Up to 6.6 L (4500 g ae/ha)	0.5m or lower		75		150	
	1.0m or lower		Not supported		Not supported	

Aircraft Application

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 metres	120	0 metres	170	0 metres
	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	

DIRECTIONS FOR USE

FIELD CROPS
Refer to 'Spray Drift Restraints' Before Application

Situation & Crop	Weeds Controlled	State	Rate / ha	Critical Comments
Wheat, Barley	Refer Weed Table	Vic only	210-800mL	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 to 6 fully emerged main stem leaves plus one or more tillers) to before the 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 5 leaf stage up to jointing stage (Zadoks 15-33). Apply only at 6 leaf stage for Cranbrook and Jacup wheats (Z16) to avoid possible damage.
		SA only	230-800mL	
		Qld, NSW, ACT only	410-800mL	
		TAS only	620-800mL	
		WA only	800mL	
Triticale		Qld, NSW ACT only	410-800mL	
		SA only	240-820mL	
		Vic only	210-800mL	
Cereal Rye		Qld, NSW, ACT only	410-800mL	
		Vic only	210-800mL	
Sugarcane		Qld only	1.15-2.4L	Post –emergence.
Stubble/Fallow Spray prior to Direct Drilling or Sowing Winter Cereals, Grain Legumes (Peanuts Qld, NT only), Canola		ALL STATES	210-800mL	Observe the plant back periods given in the table in this leaflet. Must be tank mixed with a knockdown herbicide such as Glyphosate 450, Paraquat 250 or Paraquat/Diquat. 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 Weed Table	All States	1.7L	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 N.B. 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 or harvest by accelerating maturity. Do not use with undersown legumes that have not set seed.
Potatoes Pre-Harvest Preparation	Broadleaf Weeds such as Clover, Variegated Thistle and Cruciferous Weeds	Vic, Tas only	1.15-2.4L	Apply approximately 4 to 5 weeks before harvest after the potato haulms have dried off. Use the highest rate where weeds are more than 30cm in height. For boom spraying apply at least 100 litres of spray mixture per hectare. If grass such as Rye Grass and Winter Grass are also present add Amitrole T Herbicide.

PASTURES, NON-AGRICULTURAL, INDUSTRIAL
Refer to 'Spray Drift Restraints' Before Application

Situation & Crop	Weeds Controlled	State	Rate/ha	Critical Comments
Improved Pasture containing Clovers	Refer to Weed Table	NSW, SA, Tas, ACT, Qld only	410-800mL	Clover must be well covered by the grass or extensive damage may result.
Pastures Non legumes, Rights-of-Way, Industrial		Qld, NSW, ACT, Tas, SA, WA only	800mL-4.7L	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	800mL-6.6L	Boom spray.
			70-620mL	Spot spraying.
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, Qld, ACT, Vic, WA, Tas, SA only	800mL to 1.5L (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 Thistles.		800ml to 1.15L (Ground Application)	
	St John's Wort		3.3 to 4.7L (Aerial or Ground)	
	All of the above plus grasses.		As above plus 2,2-DPA (740g/kg) or Glyphosate 450 g/L	

3. SPOT SPRAYING

Situation & Crop	Weeds Controlled	State	Rate	Critical Comments
Spot Spraying (All Situations)	Refer to Weed Table	All States	1/100th of rate on Weed Table per 10L water per 100m^2	Each 10 L of mix will cover 100m2 (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 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						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.
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.
Goosefoots	-	-	-	800 mL	-	-	-	-	

Weeds Controlled	Crop						Pasture – Non-Legume		Critical Comments
	Vic	SA	Tas	NSW, ACT	Qld	WA	Vic	NSW, ACT, Tas, SA, Qld, WA only	
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.
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 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.

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.
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.
- 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.

Weeds Controlled	Crop						Pasture – Non-Legume		Critical Comments
	Vic	SA	Tas	NSW, ACT	Qld	WA	Vic	NSW, ACT, Tas, SA, Qld, WA only	
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 Hemani 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	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 (1/2 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 735 mL/ha or less of Hemani 2,4-D LV 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.