Australian Pesticides & Veterinary Medicines Authority

Product Name: Engenia Herbicide
APVMA Approval No: 90067/127289v

Label Name:	Engenia Herbicide

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

Constituent Statements:	600 g/L DICAMBA present as the N,N-Bis-(3-aminopropyl) methylamine salt

Mode of Action:	GROUP 4 HERBICIDE

Statement of Claims:	For the control of certain broadleaf weeds in winter cereals, pastures, conservation tillage, sugarcane, rice, turf, grain sorghum and non-crop areas as per the DIRECTIONS FOR USE table.

Net Contents:	1L - 1000L

Restraints:	RESTRAINT DO NOT apply by aircraft. DO NOT tank mix with products containing ammonium salts such as ammonium sulphate (AMS), urea ammonium nitrate, or glufosinate-ammonium. Small quantities of ammonia/ AMS can greatly increase the volatility of dicamba. DO NOT spray if rain is likely to occur within 4 hours. DO NOT apply if heavy rains or storms are forecast within 3 days. DO NOT irrigate to the point of field runoff for at least 3 days after application. DO NOT spray when weeds are wet with dew or rain or under stress from drought, low soil fertility, extreme cold or water logging. DO NOT spray outside recommended crop growth stages as crop damage may result. DO NOT apply to crops undersown with clover, lucerne or medics. Additional Restraints for Conservation Tillage When grass and broadleaf weeds are present, use a mixture of ENGENIA and glyphosate (at the recomended rate)

	DO NOT disturb treated weeds by cultivation or sowing for 1 day after treatment of annual weeds and 7 days for perennial weeds DO NOT treat weeds heavily covered with dust or silt DO NOT apply if rainfall is likely within 6 hours of application. Observe plant back periods listed under General Instructions. When applying to dry soil surfaces, at least 15 mm rainfall is required before the plant back period begins. 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. 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.

Directions for Use:	This section contains file attachment.

Other Limitations:	

Withholding Periods:	DO NOT HARVEST, GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION IF ANOTHER HERBICIDE IS APPLIED AS A TANK MIX, OBSERVE THE WITHHOLDING RESTRICTIONS ON THAT LABEL IF THEY ARE LONGER

Trade Advice:	

General Instructions:	This section contains file attachment.

Resistance Warning:	RESISTANT WEEDS WARNING GROUP 4 HERBICIDE ENGENIA Herbicide is a member of the Benzoic acid group of herbicides. ENGENIA has the disruptor of plant cell growth mode of action. For weed resistance management, ENGENIA is a Group 4 Herbicide. Some naturally occurring weed biotypes resistant to ENGENIA 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 ENGENIA or other Group 4 Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, BASF Australia Limited accepts no liability for any losses that may result from the failure of ENGENIA to control resistant weeds. Where tank mixing with another herbicide, consider the mode of action of that herbicide and the resistance risks associated with using that herbicide.

Precautions:	RE-ENTRY DO NOT enter treated areas until spray has dried. If prior entry is necessary wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

Protections:	PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers. All applications of Engenia Herbicide must be applied in a tank mix with an approved VRA (pH buffering adjuvant). Avoid spray drift and vapour movement onto susceptible crops such as cotton that does not have the XtendFlex technology, flowers, fruit trees, lupins, ornamentals, tomatoes, vegetables, vines or any other field crop. DO NOT apply or drain or flush equipment on or near native or non-target trees or other plants or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots. INTEGRATED PEST MANAGEMENT Toxic to beneficial arthropods. Not compatible with integrated pest management (IPM) programs utilising beneficial arthropods. Minimise spray drift and vapour 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.

Safety Directions:	Harmful if inhaled. May irritate the eyes, nose and throat and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. Avoid inhaling vapour and spray mist. When using together with other products, consult their safety directions. When using together with other products, consult their safety directions. When opening the container, preparing and using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical resistant gloves. In addition, when preparing the product for use, wear a half facepiece respirator. Wash hands after use. After each day’s use, wash gloves, respirator and contaminated clothing

First Aid Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766.

First Aid Warnings:	

DIRECTIONS FOR USE

Crop	Weeds	State	Rate/ha	Weed Growth Stage at Application	Critical Comments
Barley, Oats, Triticale, Wheat From 3 leaf stage to mid-tillering (GS 13-25)	Volunteer Legumes (Chickpeas, Peas, Sub-Clover, Tares/Vetch, Medic)	All States	135 mL	Up to 4 leaf or nodes and maximum 8 cm height or diameter	Apply with a non-ionic surfactant such as BS1000* at 100 mL/100 L water.
Barley, Triticale, Wheat From 3 leaf stage to mid-tillering (GS 13-25)	Amsinckia (Yellow Burrweed), Sorrel	NSW, Vic, Tas, SA, WA only	135 mL plus 5 g metsulfuron methyl (600 g/kg)	Up to 4 leaf or young rosette stage and maximum 8 cm height or diameter	
	Charlock, Chickweed, Rough Poppy, Shepherd's Purse				
	Climbing Buckwheat (Black Bindweed)	Qld, NSW only			
	Deadnettle, Staggerweed	All States		Up to early flowering	
	Indian Hedge Mustard, Turnipweed, Wild Turnip			Up to 4 leaf or young rosette stage and maximum 5 cm height or diameter	
	New Zealand Spinach	Qld only			
	Prickly Lettuce, Tree Hogweed, Spiny Emex (Doublegee, Three-Cornered Jack), Wireweed	All States		Up to 4 leaf or young rosette stage and maximum 8 cm height or diameter	
	Sow Thistle	Qld, NSW, Vic, Tas only			
Wheat, Barley, Oats, Triticale From 3 leaf stage to mid-tillering (Zadocks 13-25)	Doublegee (Spiny Emex,Three-Cornered Jack)	All States	135 mL plus 7 g Eclipse* Herbicide	Up to 4 leaf and up to 10 cm diameter	Apply with Uptake* Spraying Oil at 500 mL/100 L water or D-C TRON* spraying oil at 1 L/100L water
	Indian Hedge Mustard, Turnip Weed, Wild Turnip, Wild Radish			Up to 8 leaf or young rosette stage and up to 15 cm height or diameter	
	Amsinckia (Yellow Burrweed), Capeweed$^{\Delta}$	NSW, Vic, Tas, SA, WA only	135 mL plus 7 g Eclipse Herbicide	Up to 4 leaf and up to 8 cm height or diameter	Apply with Uptake Spraying Oil at 500 mL/100 L water or D-C TRON spraying oil at 1 L/100L water $^{\Delta}$**Suppression** only for Capeweed
	Climbing Buckwheat (Black Bindweed)	Qld, NSW only	135 mL plus 5 g Eclipse Herbicide	Up to 4 leaf and up to 8 cm height or diameter	
	Wild Radish	WA only			
	Turnip Weed	Qld only		Up to 4 leaf and up to 12 cm height or diameter	

Crop	Weeds	State	Rate/ha	Weed Growth Stage at Application	Critical Comments
Wheat, Barley, Oats, Triticale From 5 leaf stage to mid-tillering (Zadocks 13-25/30)	Docks, Hexham Scent, Scotch Thistle (Black or Spear Thistle), Doublegee (Spiny Emex, Three-Cornered Jack), Variegated Thistles, Volunteer Legumes (Chickpeas, Faba Beans, Peas, Subclover, Tares/Vetch), Wireweed	All States	230 mL	Up to 8 leaf or young rosette stage and up to 10 cm height or diameter	For Wireweed control, add non-ionic surfactant such as BS1000 at 100 mL/100 L water
	Climbing Buckwheat, Fat Hen, New Zealand Spinach, Sunflowers, Tree Hogweed	Qld, NSW, Vic only			

Crop	Weeds	State	Rate/ha	Critical Comments
Barley, Cereal Rye, Oats, Triticale, Wheat From 5 leaf to early tillering (GS 15-22)	Capeweed, Charlock, Common Ice-Plant, Doublegee (Three- cornered Jack, Spiny Emex), Hexham Scent (Melilotus), Mustards, Seedling Docks, Soldier Thistle, Tares, Turnip Weed (*Rapistrum rugosum*), Vetch, Volunteer legumes (Chickpeas, Peas, Subterranean Clover, Tares/Vetch, Medic), Wild Radish, Wild Turnip (*Brassica tournefortii*), Wireweed (Hogweed), Ward's Weed	All States	135 mL plus 700 mL MCPA amine (500 g/L)	Spray when most weeds have germinated and are in the 2 to 4 leaf stage. In some instances suppression only of Wireweed (Hogweed) and Capeweed will occur.
Barley, Cereal Rye, Oats, Triticale, Wheat From 5 leaf to early tillering stage until the fully tillered stage and before jointing occurs (GS 15, 21-30)	Capeweed, Charlock, Chickweed, Clover, Common Ice-Plant, Hoary Cress, Mustards, Radish, Saffron Thistle, Sorrel, Wild Turnip (*Brassica tournefortii*), Turnip Weed (*Rapistrum rugosum*), Ward's Weed, Tares	SA only	230 mL plus 1 L MCPA amine (500 g/L) or 230 mL plus 700 mL 2,4-D amine (500 g/L)	DO NOT use ENGENIA plus 2,4-D in oats in SA. If any of these weeds as well as the above weeds are found in these cereal crops, the addition of MCPA or 2,4-D is essential. Spray when most weeds have germinated and are still in the young rosette stage. Possible crop damage may occur to some varieties if mixes of ENGENIA plus MCPA amine or 2,4-D amine are applied too early. A mixture with 2,4-D amine must not be used in Tasmania. In some instances suppression only of Wireweed (Hogweed),Capeweed and Hoary Cress will occur.
	Capeweed, Charlock, Chickweed, Mustards, Radish, Saffron Thistle, Sorrel, Tares, Turnip Weed (*Rapistrum rugosum*), Wild Turnip (*Brassica tournefortii*)	Qld, NSW, Vic, Tas only	230 mL plus 1.2 L MCPA amine (500 g/L) or 230 mL plus 700 mL 2,4-D amine (500 g/L)	
	Chickweed, Sorrel, Wireweed	WA only	230 mL plus 800 mL 2,4-D amine (500 g/L) or 230 mL plus 1.2 L MCPA amine (500 g/L)	
	Common Ice-Plant	WA only	265 mL plus 800 mL 2,4-D amine (500 g/L)	
	Mintweed	Qld, NSW only	230 mL plus 1.2 L MCPA amine (500 g/L) or 230 mL plus 700 mL 2,4-D amine (500 g/L)	

Crop	Weeds	State	Rate/ha	Critical Comments
Grain Sorghum From 3 leaf stage until 6 leaf stage	Amaranthus, Black (Giant) Pigweed, Bladder Ketmia, Caltrop (Yellow Vine), Mintweed, Noogoora Burr, Pigweed, Thornapple (Datura)	Qld, NSW, NT only	230 mL plus 1.5 L atrazine (600 g/L) or 270 mL plus 1.25 L atrazine (600 g/L)	Apply when weeds have 3 to 5 true leaves. DO NOT apply in hot dry conditions. Apply by boom spray as an overall spray applying 50 to 250 L water/ha. Use the higher rate of ENGENIA where Bladder Ketmia or Caltrop are present.
Grain Sorghum From 3 leaf stage until 6 leaf stage **Maize** Post-emergence until maize is approximately 90 cm high or until 15 days prior to tassle emergence	Annual Gooseberry, Annual Ground Cherry, Bathurst and Noogoora Burrs, Bellvine, Blackberry Nightshade, Caltrop (Yellow Vine), Climbing Buckwheat (Black Bindweed), Cobbler's Pegs, Common Sow Thistle, Doublegee (Three- cornered Jack, Spiny Emex), Dwarf Amaranth, Fat Hen, Field Bindweed, Green Amaranth, Lucerne, Mintweed, New Zealand Spinach, Parthenium Weed, Pigweed, Redroot Amaranth, Redshank, seedling Khaki Weed, seedling Perennial Gooseberry, Sunflower, Thornapple (Datura), Wireweed	All States (NOT Central Qld)	270 mL to 465 mL	Apply when weeds have at least 3 to 5 true leaves. DO NOT treat weeds which are beyond the rosette stage. Method of Application: Apply by boom spray as an overall or directed spray by applying 100 to 250 L water/ha. Use the higher rate on larger weeds and where Amaranthus, Blackberry Nightshade and Mintweed are the major problems or where Annual and Perennial Gooseberry are present. Certain Maize varieties may develop clubfoot of the prop roots.
Rice Pre-sowing Post-sowing Either before permanent water or until rice is at the mid-tillering stage	Docks	NSW, NT only	Seedling Docks 330 mL Mature Docks 465 mL	Pre-sowing: Apply before the end of August and DO NOT cultivate or graze for 14 days after spraying. Post-sowing: Preferably apply before the application of permanent water. If permanent water has been applied, ENGENIA can be applied up to the mid-tillering stage provided the Docks are exposed. Use 100 L/ha for boom application.
Pinus Radiata Plantations At least 10 months prior to planting pines	Naturally regenerated pines	NSW, Vic, SA only	1670 to 6650 ml	Use the high rate where total control is essential. Apply in spring.
	Sorrel (in pastures to be planted to pines)	All States	930 or 465 mL plus 1.4 L 2,4-D amine (500 g/L)	Apply in September/October period before the Sorrel flowers. Add a non-ionic wetting agent to spray mix at its recommended rate.
Potatoes After haulm senescence	Blackberry Nightshade, Chickweed, Climbing Buckwheat (Black Bindweed), Clover, Docks, Fat Hen, Thistles, Wireweed (Hogweed)	Tas only	420 to 1000 mL	Apply after haulm senescene in sufficient water to give even coverage. May be mixed with amitrole or 2,4-D to improve spectrum of weeds controlled. Refer to respective labels of these herbicides for application rates. Add suitable surfactant for improved coverage. Note: DO NOT apply when potato haulms are still green.

Crop	Weeds	State	Rate/ha	Critical Comments
Sugarcane Post-emergence	Amaranthus, Bathurst Burr, Bellvine, Black (Giant) Pigweed, Blackberry Nightshade, Caltrop, Cleome, Cobbler's Pegs, Common Sow Thistle, Fat Hen, Green Amaranth, Khaki Weed, Milkweed, Mintweed, Noogoora Burr, Parthenium Weed, Perennial Gooseberry, Pigweed, Prickly Cucumber, Purple Top [Δ], Redroot Amaranth, Sensitive Plant, Tar Vine, Thornapple (Datura), White Passion Vine [Δ]	Qld, NSW, WA, NT only	650 mL plus 1.5 L atrazine 500 g/L or 830 g Gesaprim Granules Herbicide	Spray when most weeds have germinated and are in the young rosette stage or when they have no more than 8 true leaves. Method of Application: Apply by boom spray as an overall directed spray applying 100 to 250 L water/ha. To achieve residual control use ENGENIA plus atrazine / Gesaprim. DO NOT apply more than 3 kg atrazine ai/ha/year. [Δ] Suppression only
	Bathurst Burr, Bellvine, Blackberry Nightshade, Calopo, Caltrop, Cleome, Cobbler's Pegs, Common Sow Thistle, Convolvulus, Fat Hen, Green Amaranth, Khaki Weed, Noogoora Burr, Parthenium Weed, Perennial Gooseberry, Pigweed, Pink Burr, Redroot Amaranth, Sensitive Plant, *Sida retusa*, Tar Vine, Thickhead, Thornapple (Datura)		465 mL	
	Billygoat Weed, Calopo, Common Sensitive Plant, Pink Convolvulus, *Sida retusa*, Siratro, Stinking Passion Vine		430 mL plus 1 L atrazine 500 g/L or 560 g Gesaprim Granules to 560 g plus 1.5 L atrazine 500 g/L or 830 g Gesaprim Granules	
	Fleabanes, Pink Burr, Seedling Square Weed, Snake Weed, Thickhead, Turnip Weed	Qld, NSW, WA, NT only	430 mL plus 833 mL atrazine (600 g/L) or 560 g Gesaprim Granules	
	Sicklepod		650 mL plus 1.2 L atrazine (600 g/L) or 830 g Gesaprim Granules to 740 g plus 1660 mL atrazine (600 g/L) or 1.1 kg Gesaprim Granules	

Situation	Weeds	State	Rate			Critical Comments
			/ha	High volume / 100 L	/15 L knapsack	
Grass Pastures, Non-Crop	Rubber Vine	Qld, NT only	1665 to 3335 mL Plus 2.5 L 2,4-D ester (800 g/L)	115 to 230 mL plus 175 mL 2,4,D ester (800 g/L)	17 to 35 mL plus 25 mL 2,4-D ester (800 g/L)	Ensure pasture is well established and actively growing. Apply during April or May. For application by misting machines, add 500 mL ENGENIA to 10 L water.
Grass Pastures, Perennial Grass Seed Crops	Black or Spear Thistle, Caltrop (Yellow Vine), Cotton (Woolly or True Scotch) Thistle, Doublegee (Three-cornered Jack, Spiny Emex), Hexham Scent (Melilotus), Horehound and *Rumex* spp (including Curled and Broadleafed Docks), Illyrian Thistle, Parthenium Weed, Smart Weed (Water Pepper), Star Thistle, Stemless Thistle, Variegated Thistle	All States	Seedlings 230 to 465 mL	Seedlings 35 mL	Seedlings 12 mL	When applying by boom spray use 110 to 280 L mixture/ha Add a non-ionic wetting agent to spray mix at its recommended rate.
			Young mature plants 465 to 930 mL	Young mature plants 70 mL	Young mature plants 17 mL	
	Common Ice-Plant, Hoary Cress, Saffron Thistle, Sorrel		230 mL Plus 800 mL 2,4-D amine (500 g/L)	17 mL plus 60 mL 2,4-D amine (500 g/L)	6 mL plus 15 mL 2,4-D amine (500 g/L)	
Non-Crop	Afghan Thistle, Artichoke Thistle, Star Thistle	All States	1330 mL	80 mL	23 mL	Use a minimum of 1500 L/ha water. Add a non-ionic wetting agent to spray mix at its recommended rate. Spray Angled Onion weed and Bladder Campion before flowering.
	Angled Onion Weed (Three- cornered Garlic), Bladder Campion, Cotton (Woolly or True Scotch) Thistle, Docks, Horehound, Stemless Thistle, Sorrel, Variegated (~~or~~ Spotted) Thistle		1000 mL	70 mL	17 mL	
	Blackberry Nightshade	WA only	265 to 465 mL	-	6 mL	Spray at seedling stage.
	Creeping Knotweed		1000 to 1980 mL		17 to 35 mL	Apply in early summer to actively growing plants.
	Illyrian Thistle, Parthenium Weed, Smart Weed (Water Pepper)	All States	500 mL	35 mL	12 mL	Use a minimum of 1500 L/ha water. Add a non-ionic wetting agent to spray mix at its recommended rate.
	Khaki Weed	WA only	500 mL	-	6 mL	Spray when actively growing at young rosette stage.
	Rubber Vine		1165 mL		17 mL	Apply in autumn during active growth.
	Slender Ice-Plant		265 mL plus 800 mL 2,4-D (500 g/L)		6 mL plus 15 mL 2,4-D (500 g/L)	Spray when actively growing at young rosette stage.

Situation	Weeds	State	Rate			Critical Comments
			/ha	High volume / 100 L	/15 L knapsack	
Turf	Cat's Ear, Cudweed, Pennywort, Lamb's Tongue, Fleabanes, Fumitory, Wireweed, Chickweeds, Cotula, Sorrel, Dock, Clovers, Capeweed, Toad Rush, Peppercress, Dandelion, Medics, Scarlet Pimpernel, Creeping Oxalis, Pearlwort, Trefoil, Yarrow, Bindy-eye, Jo-Jo (Onehunga)	All States	1000 mL plus 4 L 2,4-D amine (500 g/L)	70 mL plus 250 mL 2,4-D amine (500 g/L)	17 mL plus 60 mL 2,4-D amine (500 g/L)	Use a minimum of 1000 L/ha water. DO NOT spray on Buffalo Grass, Bent Grass, Lippia or Strawberry Clover. Spray when weeds are young and actively growing.
	Fat Hen, Red Flowered Mallow, Purple Top, Stagger Weed, Swine Cress	Qld, NSW, Tas, SA, WA, NT only				
Woody Species	Mimosa (*Mimosa pigra*)	NT only	1665 to 1980 mL	330 mL	50 mL	Apply to actively growing plants. Preferably apply during wet season. Retreatment may be necessary to control seedling regrowth. For application see General Instructions.

Situation	Weeds	State	Rate/ha	Critical Comments
Between Cropping Applications, Conservation Tillage, Direct Drilling, Minimum Tillage, No-Till Fallow	Amaranthus, Annual Gooseberry, Bathurst and Noogoora Burrs, Bellvine, Black or Spear Thistle, Blackberry Nightshade, Caltrop (Yellow Vine), Cobbler's Pegs, Doublegee (Three- cornered Jack, Spiny Emex), Fat Hen, Horehound and *Rumex* spp including Curled and Broadleaf Docks, Illyrian Thistle, Mintweed, Parthenium Weed, Seedling Khaki Weed, Seedling Perennial Gooseberry, Smart Weed (Water Pepper), Star Thistle, Stemless Thistle, Sunflower, Thornapple (Datura)	All States	Seedlings 270 to 465 mL	Apply when weeds have at least 3 to 5 true leaves and are actively growing. DO NOT treat weeds which are beyond the rosette stage. Use higher rate on large weeds.
	Centro, Cleome, Convolvulus, Pink Burr, Sensitive Plant, *Sida retusa*, Tar-Vine, Thickhead	Qld, NSW, Vic, Tas, WA, NT only		
	Chickweed, Sorrel, Wireweed	WA only	330 mL	Spray when most weeds have germinated and are still in the young rosette stage, when they have not more than 8 true leaves.
	Climbing Buckwheat	Qld, NSW, Vic, Tas, WA, NT only	230 mL	
	Clover	All States	165 mL	When targeting advanced growth stages (from early side shoot development) add to Touchdown Hi Tech, other glyphosate formulations or Spray.Seed® 250 Herbicide as required (mixtures of Spray.Seed plus ENGENIA must not be used in Tas). Follow recommended label rates.
	Common Ice-Plant, Hoary Cress, Saffron Thistle, Sorrel	All States	230 mL plus 800 mL 2,4-D amine (500 g/L)	Spray when most weeds have germinated and are still in the young rosette stage, when they have no more than 8 true leaves.
	Docks, Double Gee, Hexham Scent	All States	230 mL	
	Fat Hen, Scotch Thistle and Tree Hogweed	Qld, NSW, Vic, Tas, NT only		
	New Zealand Spinach	Qld, NSW, NT only		
	Sunflower, Variegated Thistle, Vetch and Wireweed	Qld, NSW, Vic, Tas, SA, NT only		
	Tares	SA only		

Situation	Weeds	State	Rate/ha	Critical Comments
Conservation Tillage, Direct Drilling, Seed Bed Salvage For weed control in fallow, stubble or pasture prior to sowing with a full disturbance implement	Amaranthus (Red Shank), Docks, Medics, Native Amaranth, Paterson's Curse, Sow Thistle, Turnip Weed, Variegated Thistle, Volunteer Cereals, Wild Mustard, Wild Oats, Wireweed (Hogweed)	Qld, NSW, Vic, SA, WA, NT only	135 to 200 mL plus 400 to 600 mL glyphosate (450 g/L)	If excessively wet conditions occur shortly after application or sowing, some retardation of crop establishment may occur in certain broadleaf crops. Spray when most weeds have germinated and are still in the young rosette or pre-tillering stage. Use the lower rate when weeds are prior to tillering or seedlings. Increase to the higher rate as weeds reach tillering or are 10 to 15 cm diameter/high. In grazed situations if heavy grazing has occurred, allow re-growth to 6 to 8 cm high before spraying. Visible symptoms of weed control may not be apparent for 10 to 21 days.
	Annual Ryegrass, Capeweed, Tree Hogweed, Volunteer Field Peas	NSW, Vic, SA, WA only		
	Apple of Peru, Barnyard Grass, Climbing Buckwheat (Black Bindweed), Canary Grass (Annual Phalaris), Mintweed, Noogoora Burr, Thorn Apple, Wild or Prickly Lettuce, Yellow Vine (Caltrop)	Qld, NSW, NT only		
	Barnyard Grass, Liverseed Grass	NSW only		
		Qld, NT only	135 to 200 mL plus 800 mL to 1.2 L glyphosate (450 g/L)	
	Sorrel	NSW, Vic, SA, WA only	135 to 200 mL plus 650 to 800 mL glyphosate (450 g/L)	

GENERAL INSTRUCTIONS

Spray when weeds are young and actively growing and, unless stated otherwise, before the 4 leaf stage.

CROP SAFETY

Yield reduction has occurred in some small cereal varieties sprayed with twice label rates at early timings. OBSERVE LABEL RATES AND TIMINGS AND AVOID EXCESSIVE SPRAY OVERLAP AT EARLY APPLICATION TIMINGS.

A temporary wilting may be evident in some crops after application.

If seasonal conditions are unusually late or dry, seek further advice as crop damage may result from spraying under these conditions.

Growers should seek advice before spraying recently released cereal varieties.

If another herbicide is used as a tank mix, observe the varietal tolerance restrictions on that label.

MIXING

Half fill the spray tank with clean water. Commence agitation and add the required amount of product to the tank. Maintain agitation whilst filling the tank and throughout the spraying operation.

Engenia® Herbicide is a soluble concentrate (SL) formulation. When using in a tank mix with other herbicides the following mix order should be observed;

- half fill the spray tank;
- add any granule (WG) formulated products first and allow dispersion, followed by any suspension concentrates (SC/flowable);
- add any water-soluble salts (eg glyphosate);
- add any EC formulations

As water quality can influence compatibility, it is recommended that mixtures should be bottle-tested in the water intended for spraying, prior to mixing commercial quantities.

Compatibility

ENGENIA is physically compatible with Agritone* 750, BS1000, Clethodim 240, Hasten*, Metsulfuron-methyl, Gesaprim* 90WG, Roundup* Ready with Plantshield, Roundup* Ultramax, Sharpen Herbicide, Uptake*, Verdict* 520, Wipeout* 450.

Application

Boom Application: Apply by a properly calibrated boom spray using not less than 50 L of water/ha.
High Volume Application: Apply a minimum 1500 L/ha. *Knapsack Application*: A 15 L knapsack treats 150 m^2.

Mimosa Control

Broadacre Application: Apply in 60 L water/ha.
High Volume Application: Thoroughly wet all leaves and stems of the plant.
Basal Bark Application: Apply to plants of less than 5 cm basal diameter. Spray liberally all around the base and 25 to 40 cm up the stem.
Cut Stump Application: Apply on plants up to 10 cm basal diameter. Cut trees as close to ground level as is possible and spray the freshly cut surface before the sap dries.

CLEANING SPRAY EQUIPMENT

After using Engenia Herbicide empty the spray tank completely and drain the entire system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean the tank, its pump, line, nozzles and nozzle filters. To rinse: After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice. To decontaminate: Before spraying sensitive crops such as canola, cotton, other brassica crops, field peas, beans, medics, subterranean clover and Lucerne, lupins, sorghum and sunflowers, wash the tank and

rinse the system as above. Quarter fill the tank and add a liquid alkali detergent such as Surf* or Omo* at 500mL/100L of water and circulate throughout the system for at least 15 minutes. Drain the entire system. Then remove filters and nozzles and clean them separately. Finally flush the system with clean water and allow to drain. Rinse water should be discharged onto a designated disposal area or if this is not possible, onto unused land away from desirable plants and their roots as well as watercourses and environmentally sensitive areas.

Plant Back Periods

There are no restrictions to planting crops following application of ENGENIA in the previous season. Do not plant cereal crops within 7 days of ENGENIA application and do not plant legume or broadleaf crops within 21 days of ENGENIA application. If tank mixtures with other herbicides are used, consideration must be given to the residual effects of the partner product/s.

Plant Back Periods for Conservation Tillage

Wait for the following periods before planting the following crops into soils sprayed with the product. If applied to a dry soil, at least 15 mm of rainfall is required before the crop rotation period begins.
Note: If water-logging occurs shortly after sowing, the product may cause some reduction in crop vigour. Use as directed only in the States indicated.

NSW, Vic, Tas, SA, WA:

Rate per hectare	Plant Back Period (days)				
	Wheat	Barley	Oats	Triticale	Rye
165 mL	1	1	1	1	1
230 mL	7	7	7	7	7
465 mL	14	14	14	14	14

NSW, Vic, Tas, SA, WA:

Rate per hectare	Plant Back Period (days)				
	Lupins	Clover / Medics	Mung Beans	Sunflower	Safflower
165 mL	7	7	5	1	14
230 mL	14	14	5	7	21
465 mL	21	21	10	14	28

NSW, Vic, Tas, SA, WA:

Rate per hectare	Plant Back Period (days)			
	Pigeon Peas	Soybeans	Millet	Cotton
165 mL	5	5	1	7
230 mL	5	5	3	7
465 mL	10	10	7	14

NSW, Vic, Tas, SA, WA:

Rate per hectare	Plant Back Period (days)				
	Sorghum	Maize	Canola	Field Peas	Chickpeas
165 mL	1	1	7	ND	ND
230 mL	3	3	10	14	21
465 mL	7	7	14	21	28

ND = Not determined

QLD, NT Only

Rate per hectare	Crop	Plant Back Period (days)
165 to 200 mL	Wheat, Barley, Oats, Triticale, Commercial Rye, Sorghum, Maize, Millet, Sunflowers	1
	Soybeans, Mung Beans, Pigeon Peas	5
	Cotton, Canola	7
Rates above 200 mL	All crops	21

Following potato haulm destruction in Tas: For rates and crops not included above, a plant back period of 6 weeks applies generally and 8 weeks for seed crops.