

Product Name: Smart Loaded 540 Herbicide
APVMA Approval No: 81719/132449



Label Name:	Smart Loaded 540 Herbicide
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	540 g/L GLYPHOSATE (present as the MONOETHANOLAMINE SALT)
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Mode of Action:	GROUP 9 HERBICIDE
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Statement of Claims:	Smart Loaded 540 Herbicide is a non-selective herbicide that will control most emerged weeds and plants in situations as indicated in the directions for use.
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Net Contents:	20 L - 1000 L
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Restraints:	To ensure herbicide absorption, DO NOT disturb weeds by cultivation, sowing or grazing for six hours of daylight after treatment of annual weeds and 7 days for perennial weeds, except where noted.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED
Trade Advice:	
General Instructions:	<p>GENERAL INSTRUCTIONS</p> <p>Product Description</p> <p>Smart Loaded 540 Herbicide is a non-selective herbicide that will control most emerged weeds and plants. It provides no residual weed control and may therefore be used before sowing any crop, but not prior to transplanting tomato seedlings.</p> <p>If required, Smart Loaded 540 Herbicide can be mixed with certain other herbicides to achieve both knockdown and residual weed control (see Tank Mixtures).</p> <p>Smart Loaded 540 Herbicide is absorbed by foliage and green stems and moves into the root system. Weeds should be actively growing when treated. Do not treat weeds under poor growing or dormant conditions (such as occur in drought, waterlogging, disease, insect damage or following frosts), as reduced weed control may result.</p> <p>Reduced results may also occur when treating weeds heavily covered with dust or silt. Prior herbicide application may also induce stress in weeds.</p> <p>For annual weeds, it may be 3 to 7 days before the effects of the treatment become apparent; for perennials, it may be as much as 2 to 3 weeks or more if cool and cloudy.</p> <p>Smart 540 Herbicide is a non-volatile liquid that mixes readily with water. Just mix with the required volume of water, add a non-ionic wetting agent, and spray.</p> <p>Heavy rainfall within 2 hours of application may wash the chemical off the foliage and a repeat treatment may be required. Delay treatment of plants wet with dew or rain, if water droplets runoff when plants are disturbed.</p> <p>Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, as severe injury or destruction may result.</p> <p>Smart Loaded 540 Herbicide is compatible with certain herbicides, insecticides and additives (see Compatibility). The active constituent of Smart Loaded 540 Herbicide is 540 g/L glyphosate present as the monoethanolamine salt.</p> <p>A withholding period for stock is not required, however, it is recommended that grazing of treated plants be delayed for one day after treatment of annual weeds, or 7 days if perennial weeds are present to ensure absorption of Smart Loaded 540 Herbicide.</p> <p>Certain plants (eg. soursob, variegated thistle) may be naturally toxic to stock. When known toxic plants are present, do not allow stock to graze until complete browning of treated plants has occurred.</p> <p>Crop Establishment</p> <p>This product is recommended for control of emerged weeds prior to crop establishment. Suitable cultivation and/or sowing operations are required to produce the most satisfactory seedbed for crop germination and development, proceed as follows:</p> <ul style="list-style-type: none"> • Spray Smart Loaded 540 Herbicide early when the weeds are young. • If weeds are few and the soil is friable, you can start seeding as early as one day after spraying. • If the weed density is high, you should delay sowing until the dead weeds are sufficiently decayed, to ensure that crop emergence is not delayed as a result of dead green or decaying weeds being incorporated by cultivation or sowing. This is particularly important in cold or wet weather. Grazing will help to reduce the weed density, and you can assist weed decay by cultivation to leave trash on the surface. • If seedbed conditions are marginal, be careful to seed at the correct depth. Do not use pre-emergent herbicides if their labels indicate that they may delay crop emergence. <p>MIXING</p> <p>NOTE: Reduced results may occur if water containing soil is used, eg. water from ponds and unlined ditches; or if hard water containing calcium salts is used.</p>

Smart Loaded 540 Herbicide is a non-volatile liquid that mixes readily with water. DO NOT mix or store or apply this product in galvanised steel, unlined steel containers or spray tanks, since a highly flammable gas mixture may be formed. So use only spray tanks and equipment made of plastic or plastic lined, fibreglass, rubber, aluminium, brass, copper, or stainless steel.

1. Make sure the spray tank is completely free of previous spray residues.
2. Half fill the spray tank with clean water. Where possible avoid using turbid water, or hard water containing calcium salts, as this may reduce weed control.
3. If Smart Loaded 540 Herbicide is being used alone, go to step 5.
4. If Smart Loaded 540 Herbicide is being used with insecticides, other herbicides or additives (see Tank Mixtures), add these products now according to their label directions.
5. Add the required volume of Smart Loaded 540 Herbicide, and mix well. Mechanical agitators may cause excessive foaming and should not be used unless required by any tank mix partners.
6. Add the rest of the water. Near the end, add a non-ionic wetting agent, see below. Make sure the filling hose is submerged to avoid excessive foaming, and on completion remove it immediately to avoid back siphoning into the water supply. Use the tank mix promptly. And certainly within 5 days since a gradual loss of activity will occur.

Spray tanks, pumps, lines and nozzles should be thoroughly rinsed with clean water following application to prevent corrosion.

Surfactant Addition

The use of a non-ionic surfactant may improve weed control where water rates are high or product rates low. Use the following amounts of non-ionic wetting agent per 100 L of spray mix:

- 200 mL of a 1000g/L wetting agent
- 300 mL of a 600g/L wetting agent

Do not add any other agricultural chemicals, spraying oils or other materials except as directed on the label.

APPLICATION

Smart Loaded 540 Herbicide is a non-selective translocated herbicide. Direct spray contact or even slight drift may cause severe injury or destruction of any growing crop or other desirable plants including trees. Thoroughly flush your mixing and spray equipment with clean water after use.

Ground Application

- Apply 25 - 100 L of spray mix per hectare.
- Where possible use fan nozzle equipment with pressures of 240-280 kPa.
- Set the boom high enough to ensure double overlap of nozzle patterns at the top of the weed canopy.

Aerial Application

- Use aerial spraying only in pasture or fallow before establishing new pasture, field crops or fodder crops, or for pre-harvest application to Sorghum. Do not apply Smart Loaded 540 Herbicide by air within intensive cropping areas as the consequences of accidental drift damage are too extreme.
- Do not exceed 2.6 L of Smart 540 Herbicide per hectare.
- Use a spray volume of at least 20 L/ha with Micronair or boom equipment, using medium-coarse spray droplets according to the ASAE S572.1 definition for standard nozzles.
- On hilly terrain, increase the water volume to 30-80 L/ha and use coarse spray droplets according to the ASAE S572.1 definition for standard nozzles.
- At 25°C increase the water volume to at least 30 L/ha and use coarse spray droplets according to the ASAE S572.1 definition for standard nozzles to compensate for evaporation.
- Do not spray by air at temperatures above 35°C as excessive evaporation may occur that will reduce weed control.

- Drift is likely when fine spray droplets according to the ASAE S572.1 definition for standard nozzles are used, when wind speed is near zero or over 15 km/hr, the air is hot and dry, or there is a temperature inversion. Do not spray under these conditions.
- After each day of spraying, thoroughly wash the aircraft and landing gear with clean water to remove herbicide residues.

Drift Warning

DO NOT use when breeze is blowing towards nearby desirable 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.

Tank Mixtures — Compatibility

Smart Loaded 540 Herbicide may be tank-mixed with the following. Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix product:

Herbicides: Smart 24-D Amine 625, Smart 2,4-D Ester 680, dicamba, metsulfuron-methyl, chlorsulfuron, Goal, atrazine flowable or granular (Do not apply the tank mix for control of Barnyard grass or Liverseed grass) plus ammonium sulphate, simazine flowable or granular plus ammonium sulphate.

Insecticides: Dimethoate, Imidan, Le-Mat, Chlorpyrifos 500.

Additives: Ammonium Sulphate.

The addition of ammonium sulphate to Smart Loaded 540 Herbicide, when used to control annual weeds, MAY improve the performance of Smart Loaded 540 Herbicide under adverse environmental conditions such as cool cloudy weather. Ammonium sulphate may also improve the performance of tank mixtures of Smart Loaded 540 Herbicide and atrazine or simazine. If ammonium sulphate is required, add it first using 2 kg/100 L of spray volume. Use only crystalline ammonium sulphate, not the prilled or granulated forms, and wash it into the tank through a mesh screen. To test quality of crystalline forms, dissolve 2 tablespoons in 2 litres of water and swirl gently for 2 minutes. If undissolved particles remain it is advisable to pre-dissolve the ammonium sulphate in water prior to adding to spray tank through a screen. Ammonium sulfate may be corrosive to metal parts of the sprayer. Thoroughly flush tanks, pumps and nozzles with water after use.

Additives : Non Ionic Wetting Agents as specified in the Directions for Use

Tank Mixtures — How to Choose

Use the following list of suggestions to determine the appropriate tank mixtures. Adhere to manufacturers' instructions in all cases.

- To improve knockdown and give residual weed control
- Atrazine (flowable only) can be added. Use with ammonium sulphate (crystalline only) to overcome antago-nism.
Do not spray by air. This mixture does not control barnyard grass.
- in fallow or in crop. Chlorsulfuron can be added.
- prior to sowing lupins. Simazine (flowable only) can be added. Use with ammonium sulphate (crystalline on-ly) to overcome antagonism.
- To improve and accelerate knockdown symptoms prior to planting wheat or barley. Add 75 mL of Goal CT® per hectare.
- To improve control of certain broadleaved weeds. Add 2,4-D Ester. Observe any regional restrictions on use.
- To improve control of Sorrel, Subterranean Clover, Medics, and White Clover. Add Dicamba. Observe any regional restrictions on use.
- To improve control of Annual Ryegrass, Silver grass, and perennial grasses. Add 200 mL of wetting agent per 100 L of spray mix. Use only if recommended.
- To compensate for adverse growing conditions such as cool or cloudy weather. Control of annual weeds by Smart 540 Herbicide alone may possibly be improved by adding 2 kg of crystalline ammonium sulphate per 100 L of spray mix.

APPLICATION CHECKLIST

- Do not treat weeds under poor growing conditions due to moisture stress, waterlogging, severe frosting, in-sect damage etc. Reduced performance may also occur where weeds are covered with dust or silt.
- Do not add surfactants, adjuvants or other pesticides except as specifically directed on this label.
- Rainfall occurring within 1 hour of application which causes run-off may require re-treatment. Rainfastness is reduced if weeds are not actively growing, under stress or conditions of low light intensity/darkness. The addition of Wetter TX may improve rainfastness on winter annual weeds.
- A Withholding Period for grazing is not required. However, it is recommended that grazing of treated plants be delayed to ensure herbicide uptake. Certain plants such as Soursob, Variegated Thistle, Sorghum and John-son grass, may be naturally toxic to stock when eaten in large quantities under certain conditions. Where plants are known to be toxic, grazing should be delayed until complete browning of treated plants has occurred.
- Apply treatments to weeds that have at least one true leaf (broadleaf weeds) or two leaves (grasses) to provide an adequate surface area for herbicide uptake.
- If heavy grazing has occurred, allow regrowth to 6-8 cm before spraying and use the higher rates recommended.

Resistance Warning:	<p>Resistant Weed Warning</p> <p>GROUP 9 HERBICIDE</p> <p>Smart Loaded 540 Herbicide is a member of the Glycines group of herbicides. The product has the inhibition of EPSP synthase mode of action. For weed resistance management, Smart Loaded 540 Herbicide is a Group 9 Herbicide. Some naturally occurring weed biotypes resistant to Smart Loaded 540 Herbicide and other Group 9 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 Smart Loaded 540 Herbicide or other Group 9 Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Crop Smart Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.</p>
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Precautions:	
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</p> <p>Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, as severe injury or destruction may result.</p> <p>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.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</p> <p>Do not contaminate dams, rivers or waterways with the product or used container. Do not apply to weeds growing in or over water. Do not spray across open bodies of water.</p>
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Storage and Disposal:	Store in the closed, original container in a dry, cool well-ventilated area out of 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 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways,
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desirable vegetation and tree roots, in compliance with the relevant Local, State or Territory government regulations. Do not burn empty containers or product.

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

Safety Directions:	Will damage eyes and will irritate skin. Avoid contact with eyes and skin. Repeated exposure may cause allergic disorders. When opening the container and preparing product and using prepared spray, wear cotton overalls but-toned to the neck and wrist and a washable hat and elbow-length PVC gloves and goggles. If product in eyes, wash it out immediately with water. If product on skin, immediately wash area with soap and water. Wash hands after use. After each days use, wash gloves and goggles and contaminated clothing.
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First Aid Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26; New Zealand 0800 764 766.
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First Aid Warnings:	
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DIRECTIONS FOR USE

SITUATION	CRITICAL COMMENTS
GENERAL WEED CONTROL For general weed control in domestic areas (home gardens), commercial, industrial and public service areas, agricultural buildings and other farm situations. For specific weeds refer to the appropriate weeds controlled table.	READ APPLICATION CHECKLIST BEFORE USING. See Annual and Perennial weeds section below for most appropriate rate. For the control of many grasses and broadleaf weeds. RATE: 7 mL per litre of water. Apply when weeds are actively growing. Apply to ensure complete and uniform wetting of foliage. Visible symptoms may take from 3 to 7 days to develop.
AGRICULTURAL AREAS	Smart Loaded 540 Herbicide may be used for control of annual and perennial as directed, in agricultural land prior to sowing of any edible or non-edible crop, but not prior to transplanting tomato seedlings.
DRY DRAINS AND CHANNELS ONLY	DO NOT apply to weeds growing in or over water. DO NOT spray across open bodies of water, and DO NOT allow spray to enter the water. DO NOT allow water to return to dry channels and drains within 4 days of application.
FORESTS	Smart Loaded 540 Herbicide may be used prior to establishment of nurseries, for site preparation prior to planting and amongst established trees using a directed or shielded spray, or using selective wiper equipment. DO NOT allow wiper surface to contact any part of the tree. DO NOT allow spray or spray drift to contact foliage or green bark of desirable trees, since severe injury may result.
NON-AGRICULTURAL AREAS AROUND BUILDINGS, COMMERCIAL AND INDUSTRIAL AREAS, DOMESTIC AND PUBLIC SERVICE AREAS, RIGHT-OF-WAYS.	Smart Loaded 540 Herbicide does not provide residual weed control. For residual control, Smart Loaded 540 Herbicide may be tank mixed with certain residual herbicides. See Tank Mixtures/Compatibility .
TREE AND VINE CROPS Avocado, Banana, Blueberries, Citrus Fruits, Custard Apples, Duboisia, Figs-Dessert, Guava, Hops, Kiwifruit, Litchi, Mango, Monstera-Fruit, Nuts (Including Almond, Pecan, Macadamia, Pistachio And Walnut), Olives, Pawpaw, Persimmons, Pome Fruit, Raspberries, Stone Fruit, Tea, Vineyards.	Apply as a directed or shielded spray or using wiper equipment. DO NOT apply as a spray near trees or vines less than 3 years old unless they are effectively shielded from spray and spray drift. DO NOT allow wiper surface to contact any part of the tree, vine or palm. Citrus fruit, Nuts, Olives, Pome fruit & Vineyards DO NOT allow spray or spray drift to contact green bark or stems, canes, laterals, suckers, fresh wounds foliage or fruit. Hops Apply in Winter, prior to crop emerging from dormancy. Tea Apply a maximum of 2.7L/ha by shielded boom or directed off-centre nozzle or 340mL/100L by directed hand-gun or knapsack to avoid application to the crop. All other crops DO NOT allow spray or spray drift to contact any part of the plant including the trunk. CAUTION Where split bark on Kiwifruit and green stems on Pawpaw occur, extreme care is required. For residual control of annual weeds, Smart Loaded 540 Herbicide may be tank-mixed with compatible herbicides that are labelled for use in the above crops, See Tank Mixtures/Compatibility for directions.

WEEDS CONTROLLED (ALL STATES)	RATE	CRITICAL COMMENTS Read Application Checklist before using.
Amaranth (<i>Amaranthus spp.</i>) Barley grass (<i>Hordeum leporinum</i>) Barnyard grass (<i>Echinochloa crus-galli</i>) Brome grass (<i>Bromus spp.</i>) Caltrop (<i>Tribulus terrestris</i>) Canary grass (Annual phalaris) (<i>Phalaris spp.</i>) Capeweed (<i>Arctotheca calendula</i>) Cereals (volunteer wheat, barley, oats, sorghum) Chickweed (<i>Stellaria media</i>) Cobbler's pegs (<i>Bidens pilosa</i>) Deadnettle (<i>Lamium amplexicaule</i>) Doublegee (<i>Emex australis</i>) Fumitory (<i>Fumaria officinalis F.muralis</i>) Ground cherry (<i>Physalis ixocarpa</i>) Lesser Swinecress (<i>Coronopus didymus</i>) Liverseed grass (<i>Urochloa panicoides</i>) Mintweed (<i>Salvia reflexa</i>) Paradoxa grass (<i>Pharbitis paradoxa</i>) Paterson's Curse (<i>Echium plantagineum</i>) Pigweed (<i>Portulaca oleracea</i>) Potato weed (<i>Galinsoga parviflora</i>) Ryegrass (<i>Lolium rigidum</i>) Saffron thistle (<i>Carthamus lanatus</i>) Silvergrass (<i>Vulpia spp.</i>) Sowthistle (<i>Sonchus oleraceus</i>) Spear thistle (<i>Cirsium vulgare</i>) Spiny Burrgrass (<i>Cenchrus spp.</i>) Spurge (<i>Euphorbia spp.</i>) Sub. clover (<i>Trifolium subterraneum</i>) Thornapple (<i>Datura spp.</i>) Variegated thistle (<i>Silybum marianum</i>) Wild mustard (<i>Sisymbrium officinale</i>) Wild oats (<i>Avena spp.</i>) Wild turnip (<i>Brassica tournefortii</i>) Winter grass (<i>Poa annua</i>)	BOOM: 1.3 – 2 L/ha Handgun : 330-500mL per 100L Knapsack : 50-65 mL per 15L	<ul style="list-style-type: none"> Annual weeds may be sprayed anytime they are actively growing. Use the lower rate on weeds up to 15 cm tall; increase to the higher rate where weeds are over 15 cm tall. Visible symptoms develop in 3-7 days but complete desiccation may take 14-21 days under cool conditions. Smart 540 Herbicide does not provide residual weed control. Repeat treatments may be necessary to control later germinating weeds. For residual control of annual weeds, Smart 540 Herbicide may be tank-mixed with certain residual herbicides. See Tank Mixtures/Herbicides for directions.

SITUATION	STATE	WEEDS CONTROLLED	RATE Vol/ha	CRITICAL COMMENTS
TREE AND VINE CROPS. Avocado, Banana, Blueberries, Citrus fruit, Custard apples, Duboisia Figs - dessert, Guava, Kiwifruit, Litchi, Mango, Monstera - fruit, Nuts (including Almond, Pecan, Macadamia, Pistachio and Walnut), Olives, Pawpaw, Persimmons, Pome fruit, Raspberries, Stone fruit, Tea, Vineyards	All States	Amaranth, Barley grass ,Barnyard grass Brome grass , Caltrop, Canary grass (Annual phalaris),Capeweed , Chickweed, Deadnettle, Doublegee , Liverseed grass, Mintweed ,Paterson's Curse , Pigweed Ryegrass Silvergrass Spear thistle, Thornapple, Variegated thistle , Wild mustard, Wild oats, Wild turnip, Winter grass	Boom : 1.3 – 2 L/ha Handgun: 330-500mL per 100L Knapsack: 50-65mL per 15L	<ul style="list-style-type: none"> • Apply as a directed or shielded spray or using wiper equipment. DO NOT apply as a spray near trees or vines less than 3 years old unless they are protectively shielded from spray and spray drift. DO NOT allow wiper surface to contact any part of the tree, vine or palm. • Citrus fruit, Nuts, Olives, Pome fruit & Vineyards. DO NOT allow spray drift to contact green bark or stems, canes, laterals, suckers, fresh wounds, foliage or fruit. • Tea. Apply a maximum of 2L/ha by shielded boom or directed off-centre nozzle or 330mL/100L by directed handgun or knapsack to avoid application to the crop. • All other crops. DO NOT allow spray or spray drift to contact any part of the plant including the trunk. <p>CAUTION: Where split bark on Kiwifruit and green stems on Pawpaw occur, extreme care is required.</p> <ul style="list-style-type: none"> • For residual control of annual weeds, Smart 540 Herbicide may be tank-mixed with compatible herbicides which are labelled for use in the above crops. See Tank Mixtures/Herbicides for directions.

Crop/Situation	State	Weeds controlled	Rate Vol/ha	Critical comments
SOUTHERN AUSTRALIA Prior to sowing a crop or pasture with full soil disturbance by cultivation or sowing with a tyned implement	WA, SA, VIC, NSW only	Barley Grass, Brome grass, Volunteer cereals, Wild oats	330 – 660mL pre tillering 660mL – 830mL post tillering	Treat actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred allow regrowth to 6-8 cm before spraying and use the higher rate. RATE SELECTION: Increase to higher rates late in the season or when treating under cold/overcast conditions.
		Annual phalaris (Canary grass), Annual ryegrass, Silvergrass, Winter grass	660mL – 830mL pre tillering 830mL – 1.0L post tillering	FULL DISTURBANCE with cultivation or sowing with a tyned implement may start 1 day after treatment (7 days if Dock, Phalaris, Skeleton weed, Soursob or Sorrel are present) and should occur within 21 days after treatment. Where cultivation or sowing does not occur within 21 days, new weed growth may require further treatment. When treating light infestations of seedling annual grasses (pre-tillering) and annual broadleaved weeds (less than 8cm dia/height) cultivation or sowing may start 6 hours after treatment and should occur within 21 days
		Calomba daisy, Capeweed, Doublegee (Spiny Emex)	330 – 660mL less than 8 cm diameter 660mL – 1.0L greater than 12 cm diameter	CROP ESTABLISHMENT: Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See Crop Establishment for directions

Crop/Situation	State	Weeds controlled	Rate Vol/ha	Critical comments
SOUTHERN AUSTRALIA Prior to sowing a crop or pasture with full soil disturbance by cultivation or sowing with a tyned implement	WA, SA, VIC, NSW only	Amsinckia, Fumitory, Paterson's Curse, Saffron Thistle, Scotch Thistle, Spear thistle, Variegated thistle, Volunteer lupins, Wild turnip	660mL – 830mL less than 12 cm diameter 830mL – 1.0L greater than 12 cm diameter	ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES: Addition of a non-ionic wetting agent, 200mL/100L of spray solution may improve control. When treating dense infestations of Silvergrass, use of low volume nozzles (eg. SS 11001, Hardi No 10) and a spray volume of 70 L/Ha or more is recommended to improve plant spray coverage. TANK MIXTURES: For improved control of clover add Banvel® (dicamba). Read and follow all label directions, restraints, plant back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See Tank Mixtures for directions
		Dock (Seedling)	660mL – 1.0L	
		Perennial phalaris, Skeleton weed fully emerged rosettes (NSW only), Sorrel, Soursob, Sub clover	1.0L	PERENNIAL WEEDS: For Perennial phalaris, Soursob, Skeleton weed and Sorrel, this product will provide knockdown, seasonal suppression and reduction in treated plant numbers.
		All the above weeds	1.0 – 2.0L	TASMANIA: Use 1.0L/ha on annual weeds. Increase to 2.0L/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 1L/ha of Banvel® (dicamba). Observe Banvel® label directions and plant back periods.
SOUTHERN AUSTRALIA Prior to establishing a crop or pasture with an implement that gives minimal or no soil disturbance	NSW SA, VIC, WA, only	Barley grass, volunteer cereals, Wild oats	660mL – 1.0L	Treat actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing of mature plants has occurred allow regrowth to 6-8 cm before spraying and use the higher rate. RATE SELECTION: Use the lower rate on young weeds, increase to the higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation/budding. Increase to higher rates in spring or when treating under cold/overcast conditions. AERIAL APPLICATION: Use the higher rates. See also Aerial Application .
		Brome grass, Canary grass, Capeweed, Variegated thistle, Winter grass	830mL – 1.3L	ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES: Add a non-ionic wetting agent, 200mL/100L of spray solution. When treating dense infestations of Silvergrass, use of low volume nozzles (eg. SS 11001, Hardi No 10) and a spray volume of 70 L/Ha or more is recommended to improve plant spray coverage.

SOUTHERN AUSTRALIA Prior to establishing a crop or pasture with an implement that gives minimal or no soil disturbance (cont)	NSW SA, VIC, WA, only	Annual ryegrass, Paterson's curse, Saffron thistle, Scotch thistle, Silvergrass, Spear thistle, Wild mustard, Wild radish, Wild turnip	1.0 – 1.3L	(cont) TANK MIXTURES: For improved control of Dock, Sorrel and Sub clover add Banvel® (dicamba). Read and follow all label directions, restraints, plant back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See Tank Mixtures for directions. Addition of Ammonium Sulphate, 2kg/100L, may improve control when treating under adverse environmental conditions.
		Erodium, Perennial phalaris, Plantain, Sorrel, Sub clover, Yorkshire fog	1.25 – 1.65L	PASTURE OR CROP ESTABLISHMENT: Do NOT sow into excessive trash. Trash may be removed by grazing after treatment. Grazing may commence one day after treatment of annual weeds (small) and 7 days for perennial weeds. Delay grazing for 3 days where annual weeds are large. Sowing may proceed when excessive trash is removed, but not sooner than one day after treatment of annual weeds and 7 days for perennial weeds. See also Crop Establishment AERIAL (OR SURFACE) SEEDING: Delay seeding until trash is completely removed by grazing and/or plant decay. When establishing pasture, ensure application of fertilizer and insecticides and follow-up management is undertaken as required
		Dock, Flatweed	1.65L	
	Tas only	All the above weeds	1.0 – 2.0L	TASMANIA: Use 1.0L/ha on annual weeds. Increase to 2.0L/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 1L/ha of Banvel® (dicamba). Observe Banvel® label directions and plant back periods.

SOUTHERN AUSTRALIA To commence a fallow	NSW, VIC, SA, WA only	Barley grass, volunteer cereals, Wild oats	660mL – 1.0L	Treat actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred allow regrowth to 6-8 cm before spraying and use the higher rate. RATE SELECTION: Use the lower rate on young weeds, or where cultivation is to follow within 21 days, increasing to the higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation/budding.
		Annual ryegrass, Brome grass, Capeweed, Paterson's curse (rosette), Saffron thistle, Scotch thistle, Silvergrass, Spear thistle, Wild mustard, Wild radish, Wild turnip	1.0 - 1.3L	ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES: Add a non-ionic wetting agent, 200mL/100L of spray solution. When treating dense infestations of Silvergrass, use of low volume nozzles (eg. SS 11001, Hardi No 10) and a spray volume of 70 L/Ha or more is recommended to improve plant spray coverage.
		Hoary cress, Soursob	1.0L	HOARY CRESS: Treat from late rosette to early flowering SOURSOB: Treat at tuber exhaustion
		Couch	1.0 – 2.0L	COUCH: Use the higher rate on dense infestations. Apply sequential treatments during summer and autumn, with autumn being most effective. Repeat applications will be required for full control. For improved control use in conjunction with cultivation. TANK MIXTURES: Read and follow all label directions, restraints, plant back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See Tank Mixtures for directions.
	TAS only	All the above weeds	1.0 – 2.0L	TASMANIA: Use 1.0L/ha on annual weeds. Increase to 2.0L/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 1L/ha of Banvel (dicamba). Observe Banvel label directions and plant back periods

PASTURE TOPPING For annual grass, Capeweed and Calomba daisy seed-set reduction	WA, SA, VIC, TAS, NSW only	Barley grass, Brome grass, Capeweed, Silvergrass	120mL – 300mL	Remove stock prior to treatment to allow even regrowth. Apply to Capeweed and Annual ryegrass at FLOWERING. For other grasses apply from HEAD to MILKY DOUGH stage. Use the higher rate for dense infestations or where Annual ryegrass is present. Apply before signs of plants "haying off". Reduction in pasture legume population may occur as a result.. DO NOT apply to clover or medic crops intended for seed or hay.
		Annual ryegrass, Calomba daisy	300mL	
SEED- HEAD SUPPRESSION OF PERENNIAL GRASSES	VIC, TAS, NSW , WA, SA, only	Bent grass	250 – 420mL	TIMING : Treat from late October to late November. Apply before seedheads have emerged. Use the higher rate where growth is excessive and renovation is intended the following autumn. FOLLOW-UP MANAGEMENT: Graze hard after spraying

BENT GRASS INFESTED PASTURE For control/suppression prior to establishing crops or improved pasture species	VIC, TAS only	Most annual weeds and Bent grass	1.6L	TIMING: Apply to actively growing plants in late spring when they have some seed-head development, but before summer moisture stress. Remove stock to ensure there is full leaf growth. FOLLOW-UP MANAGEMENT: Full disturbance with a tyned implement should follow 10-21 days after spraying. Then follow with a summer crop, and/or reseeded pasture or crop the following autumn.
PASTURE MANIPULATION For suppression or control of pasture species prior to drilling, improved pasture, forage species, soybeans or Leucaena BAND SPRAYING May also be applied as a band or strip spray	NSW, VIC, WA only	Carpet grass, Kikuyu, Paspalum	920mL – 4.0L	RATE SELECTION: For suppression apply the low rate. Where complete control is required apply up to the high rate
	QLD only	Carpet grass, Paspalum	920mL – 4.0L	BAND SPRAYING: Band spraying may be done immediately after the sowing operation. Mount the nozzles behind the coulter/tyne/press wheel assembly of the band seeder. Adjust to spray 0.5 to 1.0m strips. Ensure minimal disturbance of the pasture. Excessive dust created in the seeding operation may reduce herbicide activity. Pasture seed must be drilled at the appropriate depth and covered by soil.
		Kikuyu	420mL – 4.0L	LEUCAENA (QLD ONLY): Apply 1.6L/ha through a single taper fan nozzle LF1-80 mounted at the rear of the single row planter providing a 1m swath. Planting rows to be 4m apart.
POA TUSSOCK INFESTED PASTURE For reduction of ground cover allowing pasture renovation	NSW, Tas, VIC, QLD only	Most annual weeds and suppression of Poa tussock	2.0 – 2.6L	TIMING: Graze heavily, then remove stock at least 14 days before spraying to allow fresh regrowth. Apply to actively growing plants after the autumn break but before heavy frosts (March – May) APPLICATION: Increasing to the higher rate may give more effective reductions. If aerial spraying see Aerial Application . FOLLOW-UP MANAGEMENT: Sowing may start from 14 days after spraying. It is essential that correct follow-up pasture establishment and management occurs after treatment. Spot treatment will limit re-infestations.

POA TUSSOCK INFESTED PASTURE For reduction of ground cover allowing pasture renovation	NSW, Tas, VIC, QLD only	Most annual weeds and suppression of Poa tussock	2.0 – 2.6L	TIMING: Graze heavily, then remove stock at least 14 days before spraying to allow fresh regrowth. Apply to actively growing plants after the autumn break but before heavy frosts (March – May) APPLICATION: Increasing to the higher rate may give more effective reductions. If aerial spraying see Aerial Application . FOLLOW-UP MANAGEMENT: Sowing may start from 14 days after spraying. It is essential that correct follow-up pasture establishment and management occurs after treatment. Spot treatment will limit re-infestations.
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NORTHERN AUSTRALIA In fallows or prior to sowing a crop	QLD, NSW only	Annual phalaris (Canary grass), Barley grass, volunteer cereals, Wild oats	330 – 660mL	Treat actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred allow regrowth to 6-8 cm. NOTE that under summer (hot) conditions, dense infestations of Barnyard grass and Liverseed grass may require follow-up treatment for complete control. In winter (cold) conditions, symptoms on Deadnettle may be slow to develop.
		Barnyard grass, Button grass, Columbus grass (seedling), Liverseed grass, Native Millet, Stinkgrass (Lovegrass), Volunteer Sorghum	660mL – 1.3L	RATE SELECTION: Use the lower rate on young weeds, increase to the higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation/budding. At more advanced stages of growth certain broadleaf weeds require a higher rate range or the addition of 2,4-D Ester.
		Australian bluebell (QLD only), Cudweed, Fumitory, Mexican poppy, New Zealand spinach, Saffron thistle, Spear thistle, Spurge, Stinking goosefoot	660mL - 1.0 L	CROP ESTABLISHMENT: Sowing should not proceed until conditions allow for a formation of a satisfactory seedbed. See Crop Establishment for directions.
		Black (giant) pigweed, Boggabri weed, Caltrop (Yellowvine), Indian hedge mustard, Mintweed, Summer grass	330 – 660mL up to 5 true leaves or 3cm diameter/ height 660mL – 1.0L greater than 3cm diameter/height	TANK MIXTURES: Read and follow all label directions, restraints, plant back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. DO NOT tank mix with atrazine when spraying Barnyard grass or Liverseed grass.
		Annual ground cherry (Gooseberry), Bladder Ketmia, Camel melon, False caster oil plant/Thornapple, Noogoora burr, Turnip weed, Wild lettuce, Wild turnip, Wireweed	660mL – 1.0L prior to stem elongation/ budding. After that use 330mL – 1.0L plus 500 to 700 mL 2,4-D Ester (800g/L) OR 1.0 – 1.3L of this product alone	AERIAL APPLICATION: For instructions on Aerial application under hot conditions, see Aerial Application. DO NOT apply by aircraft when temperature is above 30°C
		Pigweed	660mL - 1.3L up to 20cm diameter	Use a higher rate on larger weeds. Control of Pigweed over a wide range of growth stages can be obtained with the addition of metsulfuron-methyl. Observe re-cropping intervals.

NORTHERN AUSTRALIA In fallows or prior to sowing a crop	QLD, NSW only	Sowthistle/ Milkthistle	500 – 660mL rosette up to 3cm diameter 660mL – 1.3L greater than 3cm diameter	Previously grazed plants may be difficult to control without allowing full recovery
		Couch	1.0 – 2.0L	Use the higher rate for dense infestations. Apply sequential treatments during summer and autumn, with autumn being most effective. Repeat applications may be required for full control. For improved control use in conjunction with cultivation
		Johnson grass	1.3 – 2.0L	Use the higher rates on plants approaching seedhead stage. Apply to plants with a minimum of 30 cm new growth. Sequential treatments will be required for long term control.
		Nutgrass	2.0 + 2.0L	Make first application to actively growing plants when at least 20% have reached the head stage (normally about February). After allowing maximum re-emergence to occur (normally in 6-8 weeks), it is essential to make a second application. NOTE: Follow-up treatments should be made as part of a Nutgrass control program.

SORGHUM CONTROL				
Pre-harvest	QLD, NSW only	Sorghum, Grain Sorghum DO NOT apply to varieties intended for seed production or varieties prone to lodging	1.0 or 1.3L	<p>DO NOT apply if crop is under stress from low moisture, frost, cold or waterlogging.</p> <p>RATE SELECTION: Use the lower rate for control of crop and late tillers and suppression of ratoon regrowth. Use the higher rate for improved suppression of ratoon regrowth.</p> <p>TIMING: Apply when grain moisture is less than 25%. Application can be made when moderate browning has occurred.</p> <p>CAUTION: Treatment may increase potential for CROP LODGING, particularly if prior moisture stress has occurred. Harvest as soon as sufficient dry down has occurred to avoid possible lodging</p> <p>CAUTION: Sorghum may be naturally toxic to stock.</p>
SORGHUM CONTROL				<p>APPLY UNDER GOOD GROWING CONDITIONS ONLY. DO NOT apply if plants are under stress from low moisture, frost, cold or waterlogging.</p> <p>SLASHED STUBBLE AND SPRING REGROWTH: Apply when fresh regrowth is at least 20 cm high.</p> <p>STANDING STUBBLE: Apply only if sufficient green leaf is present. If grazing has occurred allow regrowth to 20 cm high before treatment.</p> <p>RATE SELECTION: Use the lower rate for knockdown and regrowth suppression where cultivation is to follow. Increase to the higher rate for improved regrowth control.</p> <p>NOTE: Variable results occur where the crop has been subject to stress or the growing conditions are marginal.</p> <p>CAUTION: Sorghum may be naturally toxic to stock</p>
SUGAR CANE				
Ratoon spray out	QLD, NSW only	Sugar Cane ratoon regrowth	2.6 - 6L	APPLY UNDER GOOD GROWING CONDITIONS ONLY to actively growing ratoons 60 – 120 cm tall. DO NOT apply if plants are under stress from low moisture, frost, cold or waterlogging. Use the lower rate for suppression or where cultivation is to follow. Use the higher rate for control.

RICE Direct drilling	NSW only	Annual phalaris (Canary grass), Annual ryegrass, Barley grass, Burr medic, Sub-clover, Winter grass	660mL – 830mL	<p>This product is less effective on drought stressed plants. In drought conditions a pre-watering prior to spraying is recommended. In grazed situations, if heavy grazing has occurred allow regrowth to 6-8 cm before spraying.</p> <p>ANNUAL RYEGRASS: Add non-ionic wetting agent at 200mL/100L spray solution and when dominant use the higher rate.</p> <p>SOWING: Direct drilling may take place 1 – 14 days after spraying. This product does not provide residual weed control. Permanent water and approved selective herbicides should be used to provide continual control of weeds.</p>
COTTON PRE-HARVEST Do not use on crops intended for seed production	QLD, NSW only	<p>Bathurst burr, Noogoora burr, Winter annual weeds including Sowthistle/ Milkthistle</p> <p>Nutgrass (seasonal suppression only)</p>	<p>830mL - 1.6L</p> <p>1.6L</p>	<p>Use the lower rate on light infestations of small weeds, where the crop canopy allows adequate spray coverage of the weeds. Increase to the higher rate when the crop canopy may limit spray coverage, when treating dense infestations, or when treating larger weeds. Apply alone or in tank mixtures with Dropp® or Harvade®. Apply when at least 60% of bolls are open and immature bolls cannot be easily cut with a sharp knife. Where a leafy canopy limits spray coverage, reduced weed control can be expected. For better results under these conditions, delay application until canopy re-opens following initial conditioning treatment.</p> <p>Where control of Nutgrass or Noogoora burr is required, treatment should be applied prior to the onset of frosts. When tank mixed with defoliants, a slightly higher proportion of cotton leaf may be retained, particularly where the higher rate is used. Read and follow all label directions for tank mix products.</p>
COTTON Shielded Sprayers	QLD, NSW only	Refer to weeds controlled section Northern Australia in fallows or prior to sowing a crop		Apply this product to weeds growing between crop rows using a shielded sprayer. Do not apply in crops less than 20 cm high. Do not allow spray or spray drift to contact any part of the cotton plants as severe injury or destruction may result.

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