

Product Name: 4Farmers Moonshine Herbicide
APVMA Approval No: 93240/138448



Label Name:	4Farmers Moonshine 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:	970 g/kg GLYPHOSATE ACID
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Mode of Action:	GROUP 9 HERBICIDE
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Statement of Claims:	4Farmers MOONSHINE Herbicide, used in a mandatory tank mix with ammonium sulfate and a wetting agent, is a non-selective herbicide that will kill most emerged weeds and plants in situations as indicated in the directions for use.
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Net Contents:	5 kg – 1000 kg
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Restraints:	<p>RESTRAINTS</p> <p>To ensure herbicide absorption, DO NOT disturb weeds by cultivation, sowing or grazing for 1 day after treatment of annual weeds and 7 days for perennial weeds, except where noted.</p> <p>SPRAY DRIFT RESTRAINTS</p> <p>Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift</p> <p>DO NOT allow bystanders to come into contact with the spray cloud.</p> <p>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.</p> <p>Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.</p> <p>DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.</p>
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	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.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	PRE-HARVEST: DO NOT HARVEST FOR 7 DAYS OTHER USES: NOT REQUIRED WHEN USED AS DIRECTED
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Trade Advice:	
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General Instructions:	<p>GENERAL INSTRUCTIONS</p> <p>PRODUCT DESCRIPTION</p> <p>4Farmers MOONSHINE Herbicide is a non-selective herbicide that will kill most emerged weeds and plants. It is essential to add Ammonium sulfate to the water before Moonshine is added and afterwards, add a wetting agent to achieve water solubility and effectiveness.</p> <p>MOONSHINE is absorbed by plant foliage and green stems and moves through the plant from the point of contact to and into the root system. Effects may not be apparent for 3–7 days (annual weeds) or 2–3 weeks (perennial weeds) or longer under cool, cloudy conditions.</p> <p>MOONSHINE will control emerged weeds only, and provides no residual weed control. Apply treatments to weeds, which have at least one true leaf (broadleaf weeds) or two leaves (grasses) to provide an adequate surface area for herbicide uptake.</p> <p>MOONSHINE may be used prior to sowing any crop (edible or non edible) but not prior to transplanting tomato seedlings.</p> <p>Weeds should be actively growing at the time of treatment. Do not treat weeds under poor growing or dormant conditions (such as occur in drought, water logging, disease, insect damage or following frosts) as reduced weed control may result. 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>Rainfall occurring up to 6 hours after application may reduce effectiveness. Rainfastness or general efficacy may be reduced if weeds are not actively growing, are under stress or conditions of low light intensity/darkness. Heavy rainfall within 2 hours after 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 run off when plants are disturbed. Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, since severe injury or destruction may result. MOONSHINE is compatible with certain herbicides, insecticides and additives (see Compatibility). The active constituent of MOONSHINE is 970 g/kg glyphosate acid.</p> <p>If required, MOONSHINE can be mixed with certain other herbicides to achieve both knockdown and residual weed control.</p> <p>WITHHOLDING PERIOD</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 MOONSHINE.</p>
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Certain plants (e.g. 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.

CROP ESTABLISHMENT

MOONSHINE is recommended for control of emerged weeds prior to crop establishment. Suitable cultivation and/or sowing operations are required to provide seedbed conditions satisfactory for crop germination and development. Spraying early to control young weeds will favour preparation of suitable seedbeds. On friable soils and where there is only light cover of young weeds, sowing may proceed satisfactorily from one day after spraying. In situations of heavy weed growth sowing should be delayed until weed decay and soil conditions allow formation of a satisfactory seedbed. Incorporation of green or decaying vegetation and roots into the seedbed by cultivation or sowing may cause retarded crop emergence, particularly in cold and/or wet conditions. Vegetation may be reduced by grazing and weed decay may be assisted by cultivation to leave trash on the surface. In marginal seedbed conditions take care to achieve correct seeding depth, and avoid use of pre-emergence herbicides where label directions advise of risk of retarded crop emergence.

MIXING

MOONSHINE must be added AFTER the addition of Ammonium sulfate to ensure it mixes readily in the spraytank water.

Note: Reduced results may occur if water containing soil is used, e.g. water from ponds and unlined ditches, or if hard water containing calcium salts is used.

Do not add a water acidifier to the mix as the glyphosate acid will be acidic enough and any additional acidifier could reduce the solubility of MOONSHINE.

DO NOT mix, store or apply this product or spray solutions of this product in galvanised steel or unlined steel containers or spray tanks, since a highly flammable gas mixture may be formed. Use stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic lined containers or spray tanks. Nozzles should be thoroughly rinsed with clean water following application to prevent corrosion.

MIXING INSTRUCTIONS

To maximise solution-stability of glyphosate acid in spray water:

- Use a granny pot
- Three quarter fill the spray tank with water then with agitator running add ammonium sulfate at 1-2% v/v spray volume (higher rate for cold or hard water).
- Add the required amount of MOONSHINE via the granny pot followed by 0.25 % (250 mL/100 L) of a non-ionic wetter or other suitable wetter. Mix thoroughly.
- If MOONSHINE is being used with insecticides, other herbicides or additives, add these products to the spray tank according to their label directions.
- A spray volume of 60 – 100 L/ha is preferable. If using a combination of low water volume (<60 L/ha) and high rate (>450 g/ha) consider using 4Farmers In-tank-neutralising Wetter as the wetter.

APPLICATION

MOONSHINE 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. Clean all equipment after use by thoroughly washing with water.

BOOM EQUIPMENT

Application of MOONSHINE in spray volumes of 60 L-100 L/ha is recommended for broadacre uses and 200 L/ha or less for tree line and vine line spraying in orchards and vineyards. Glyphosate works better when it is present at a higher concentration in the spray solution provided sufficient coverage of the target is achieved. Nozzles and pressure settings should be selected to deliver a COARSE to VERY COARSE droplet size. The use of nozzles and/or pressure settings that produce VERY FINE or FINE spray quality should

be avoided, as these are prone to loss or drift. Environmental conditions, including delta T, wind speed and direction, and the size and density of the target weeds, should be taken into consideration when selecting nozzles. To minimise off-target drift, apply with the lowest boom height to achieve double overlap of the spray pattern at the top of the target.

SHIELDED EQUIPMENT

For shielded applications a spray volume of 80 L/sprayed ha is recommended using nozzle types and pressure settings to deliver a COARSE droplet size.

Crop damage may result if spray drift occurs through incorrect nozzle and/or pressure selection, inadequate shielding and/or wind strength, high evaporation rates or excessive ground speed.

AERIAL – Application

Note: In situations where the water volume is 20-50 L/ha and the Moonshine rate is greater than 450 g/ha it is recommended to add 4Farmers In-tank-neutralising Wetter to assist glyphosate solubility.

Aerial equipment may be used to apply MOONSHINE only in pasture or fallow situations prior to establishment of field crops, fodder crops, or new pasture, and for preharvest application to sorghum crops. DO NOT use in intensive horticultural cropping areas. Use recommended rates of MOONSHINE specified in this label up to a maximum rate of 1.15 kg/ha.

DO NOT apply treatments by aircraft in situations where drift onto sensitive crops and pastures is likely to occur.

Apply treatments using boom or Micronair equipment using a spray volume not less than 20 L/ha and using settings to produce a minimum COARSE droplet size. In multiple product tank mixes a minimum water volume of 50 L/ha is recommended and local advice should be sought. Correct mixing order is important. Swath width should be set to take into account aircraft type, wind conditions, target height and density. Swath width will need to be reduced to avoid striping under light wind conditions and/or application to tall, dense targets e.g. preharvest application, treatments in heavy crop stubble. DO NOT apply MOONSHINE by aircraft in temperatures above 30°C and increase spray output to at least 30 L/ha if temperatures rise above 25°C. Avoid application when relative humidity falls below 35%. Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove herbicide residues.

Application on hilly terrain

Spraying height may vary. Increase water volume to 30-80 L/ha and use nozzles that produce COARSE to VERY COARSE droplet size.

Application under hot conditions

High temperatures and/or low relative humidity cause excessive evaporation of spray droplets, which may reduce results. When temperature reaches 25°C, increase water volume to at least 30 L/ha, and use nozzles that produce COARSE to VERY COARSE droplet size. DO NOT apply MOONSHINE by aircraft when temperature is above 30°C.

Resistance Warning:	<p>RESISTANT WEEDS WARNING</p> <p>4Farmers MOONSHINE Herbicide is a member of the Glycines group of herbicides and has the inhibition of EPSP Syntheses mode of action. For weed resistance management MOONSHINE is a group 9 Herbicide. Some naturally occurring weed biotypes resistant to MOONSHINE and other group 9 herbicides may exist through normal genetic variability in any weed population. These resistant weeds will not be controlled by MOONSHINE or other group 9 herbicides.</p> <p>Since the occurrence of resistant weeds is difficult to detect prior to use, 4 Farmers Australia Pty Ltd accepts no liability for any losses that may result from the failure of MOONSHINE to control resistant weeds.</p>
Precautions:	

Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, as severe injury or destruction may result. 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 Do not contaminate dams, rivers or streams 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:	<p>Store in the closed, original container in a cool, dry, well-ventilated area out of direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers.</p> <p>HDPE Containers</p> <p>Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. 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.</p> <p>HDPE bags</p> <p>Single-rinse or shake remainder into spray tank/water/dip/drench, etc. Do not dispose of undiluted chemicals on site. 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.</p>
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Safety Directions:	<p>Corrosive attacks eyes and skin. Harmful if absorbed by skin contact or inhaled. Avoid contact with eyes and skin. Do not inhale dust. When preparing product for use, wear cotton overalls over normal clothing, buttoned to the neck and wrist and a washable hat, disposable dust face mask covering mouth and nose, elbow-length chemical resistant gloves, impervious footwear and face shield. If applying by hand wear elbow-length chemical resistant gloves. If applying by spraying equipment carried on the back of the user wear cotton overalls, over normal clothing, buttoned to the neck and wrist, and elbow-length chemical resistant gloves. 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 and face shield and contaminated clothing.</p>
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First Aid Instructions:	<p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126, New Zealand 0800 764 766. If swallowed, do NOT induce vomiting. If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor</p>
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First Aid Warnings:	
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DIRECTIONS FOR USE

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per 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	185 – 370 g pre tillering 370 – 465 g post tillering	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. 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	370 – 465 g pre tillering 465 – 555 g 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 8 cm diam/height) cultivation or sowing may start 6 hours after treatment and should occur within 21 days.
		Calomba daisy, Capeweed, Doublegee (Spiny Emex)	185 – 370 g less than 8 cm diameter 370 – 555 g greater than 8 cm diameter	CROP ESTABLISHMENT: Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See Crop Establishment for directions
		Amsinckia, Fumitory, Paterson's Curse, Saffron Thistle, Scotch Thistle, Spear thistle, Variegated thistle, Volunteer lupins, Wild turnip	370 – 465 g less than 12 cm diameter 465 – 555 g greater than 12 cm diameter	ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES: When treating dense infestations of Silvergrass, use of low volume nozzles (e.g. SS 11001, Hardi No 10) and a spray volume of 70 L/ha or more is recommended to improve plant spray coverage.
		Dock (Seedling)	370 – 555 g	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.
		Perennial phalaris, Skeleton weed fully emerged rosettes (NSW only), Sorrel, Soursob, Sub clover	555 g	PERENNIAL WEEDS: For Perennial phalaris, Soursob, Skeleton weed and Sorrel, this product will provide knockdown, seasonal suppression and reduction in treated plant numbers.
	Tas only	All the above weeds	555 g – 1.1 kg	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per ha	CRITICAL COMMENTS
				TASMANIA: Use 0.56 kg/ha on annual weeds. Increase to 1.15 kg/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 1 L/ha of dicamba (500 g/L). Observe dicamba 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	370 – 555 g	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. 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 <i>Aerial Application</i> . ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES: When treating dense infestations of Silvergrass, use of low volume nozzles (e.g. SS 11001, Hardi No 10) and a spray volume of 70 kg/ha or more is recommended to improve plant spray coverage. 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.
		Brome grass, Canary grass, Capeweed, Variegated thistle, Winter grass	465 – 740 g	
		Annual ryegrass, Paterson's curse, Saffron thistle, Scotch thistle, Silvergrass, Spear thistle, Wild mustard, Wild radish, Wild turnip	555 – 740 g	
		Erodium, Perennial phalaris, Plantain, Sorrel, Sub clover, Yorkshire fog	700 – 930 g	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 <i>Crop Establishment</i> 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
	Tas only	All the above weeds	555 g – 1.1 kg	Always add Ammonium sulfate to the spraytank first and always add a suitable

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per ha	CRITICAL COMMENTS
				wetter. For specific mixing procedure refer the MIXING section. TASMANIA: Use 0.56 kg/ha on annual weeds. Increase to 1.1 kg/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 1L/ha of dicamba (500 g/L). Observe dicamba label directions and plant back periods.
SOUTHERN AUSTRALIA To commence a fallow	NSW, Vic, SA, WA only	Barley grass, volunteer cereals, Wild oats	370 – 555 g	Always add Ammonium sulfate. For specific rates refer to Surfactant /Addition section. 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	555 – 740 g	ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES: When treating dense infestations of Silvergrass, use of low volume nozzles (e.g. SS 11001, Hardi No 10) and a spray volume of 70 L/ha or more is recommended to improve plant spray coverage. HOARY CRESS: Treat from late rosette to early flowering SOURSOB: Treat at tuber exhaustion
		Hoary cress, Soursob	555 g	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	555 g – 1.1 kg	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. TASMANIA: Use 0.56 kg/ha on annual weeds. Increase to 1.1 kg/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 1L/ha of dicamba(500 g/L). Observe dicamba label directions and plant back periods
PASTURE TOPPING	WA, SA, Vic, Tas, NSW only	Barley grass, Brome grass, Capeweed, Silvergrass	110 – 170 g	Always add Ammonium sulfate. For specific rates refer to Surfactant /Addition section.

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per ha	CRITICAL COMMENTS
For annual grass, Capeweed and Calomba daisy seed-set reduction		Annual ryegrass, Calomba daisy	170 g	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.
SEED- HEAD SUPPRESSION OF PERENNIAL GRASSES	Vic, Tas, NSW, WA, SA, only	Bent grass	140 – 230 g	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. TIMING: Treat from late October to late November. Apply before seed-heads 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	930 g	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. 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	510 g – 2.2 kg	Always add Ammonium sulfate. For specific rates refer to Surfactant /Addition section. RATE SELECTION: For suppression apply the low rate. Where complete control is required apply up to the high rate. 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 1.0 m 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. LEUCAENA (QLD ONLY): Apply 930 g/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	NSW, TAS, VIC,	Most annual weeds and	1.1 – 1.5 kg	Always add Ammonium sulfate to the spraytank first and always add a suitable

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per ha	CRITICAL COMMENTS
For reduction of ground cover allowing pasture renovation	QLD only	suppression of Poa tussock		<p>wetter. For specific mixing procedure refer the MIXING section.</p> <p>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)</p> <p>APPLICATION: Increasing to the higher rate may give more effective reductions. If aerial spraying see Aerial Equipment.</p> <p>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.</p>
NORTHERN AUSTRALIA In fallows or prior to sowing a crop	QLD, NSW only	Annual phalaris (Canary grass), Barley grass, volunteer cereals, Wild oats	185 – 370 g	<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</p> <p>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.</p>
		Barnyard grass, Button grass, Columbus grass (seedling), Liverseed grass, Native Millet, Stinkgrass (Lovegrass), Volunteer Sorghum	370 – 740 g	<p>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.</p>
		Australian bluebell (QLD only), Cudweed, Fumitory, Mexican poppy, New Zealand spinach, Saffron thistle, Spear thistle, Spurge, Stinking goosefoot	370 – 555 g	<p>CROP ESTABLISHMENT: Sowing should not proceed until conditions allow for a formation of a satisfactory seedbed. See Crop Establishment for directions.</p>
		Black (giant) pigweed, Boggabri weed, Caltrop (Yellowvine), Indian hedge mustard, Mintweed, Summer grass	185 – 370 g up to 5 true leaves or 3 cm diameter/ height 370 – 555 g greater than 3 cm diameter/height	<p>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.</p>
		African turnip weed, Deadnettle, Sweet summer	280 – 370 g up to 5 true leaves	<p>AERIAL APPLICATION: For instructions on Aerial application under hot conditions, see Aerial Application. DO NOT apply by aircraft when temperature is above 30°C</p>

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per ha	CRITICAL COMMENTS
		grass, Variegated thistle, Volunteer Sunflower	or 3 cm diameter/ height 370 – 555 g greater than 3 cm diameter/height	
		Annual ground cherry (Gooseberry), Bladder Ketmia, Camel melon, False castor oil plant/Thornapple, Noogoora burr, Turnip weed, Wild lettuce, Wild turnip, Wireweed	370 – 555 g prior to stem elongation/ budding. After that use 185 – 555 g plus 500 to 1.1-1.7 L 2,4-D IPA salt (Surpass 475 g/L or dimethylamine & diethanolamine salts 475 g/L) OR 555 – 740 g of this product alone	
		Pigweed	370 – 740 g up to 20 cm diameter	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. 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.
		Prickly Paddy Melon	356 – 740 g plus 80 mL triclopyr (600 g/L)	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. DO NOT add crop oil.
		Sowthistle/ Milkthistle	280 – 370 g rosette up to 3 cm diameter 370 – 740 g greater than 3 cm diameter	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. Previously grazed plants may be difficult to control without allowing full recovery
		Couch	555 g – 1.1 kg	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. 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	740 g – 1.1 kg	Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section. Use the higher rates on plants approaching seed-head stage. Apply to plants with a minimum of 30 cm new growth. Sequential

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per ha	CRITICAL COMMENTS
		Nutgrass	1.1 kg + 1.1 kg	<p>treatments will be required for long-term control.</p> <p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</p> <p>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.</p>
SORGHUM CONTROL	QLD, NSW only	Sorghum, Grain Sorghum DO NOT apply to varieties intended for seed production or varieties prone to lodging	555 – 740 g	<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</p> <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	QLD, NSW only	Sorghum stubble, Grain sorghum	370 – 555 g for fresh regrowth from slashed stubble. 555 – 740 g for standing stubble if sufficiently green and for fresh spring regrowth	<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</p> <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>

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per ha	CRITICAL COMMENTS
SUGAR CANE Ratoon spray out	QLD, NSW only	Sugar Cane ratoon regrowth	2.2 - 3.3 kg	<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. Ensure the water rates of a minum 200 L /ha or add 4Farmers In-tank-neutralising Wetter at 500 mL per kg of MOONSHINE.</p> <p>For specific mixing procedure refer the MIXING section.</p> <p>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.</p>
RICE Direct drilling	NSW only	Annual phalaris (Canary grass), Annual ryegrass, Barley grass, Burr medic, Sub- clover, Winter grass	370 – 465 g	<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</p> <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</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	Bathurst burr, Noogoora burr, Winter annual weeds including Sowthistle/ Milkthistle	465 – 930 g	<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</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>

CROP/ SITUATION	STATE	WEEDS CONTROLLED	RATE per ha	CRITICAL COMMENTS
		Nutgrass (seasonal suppression only)	930 g	<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</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		<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</p> <p>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.</p>
TREE AND VINE CROPS. Vineyards, Berries and other small fruits Citrus fruits Tropical and Sub-tropical fruits, Pome fruit, Stone fruit, Tree nuts, Duboisia, Hops, Tea	All States	Amaranth, Barley grass, Barnyard grass Brome grass, Caltrop, Canary grass (Annual phalaris), Capeweed, Chickweed, Deadnettle, Double gee, Liverseed grass, Mintweed, Paterson's Curse, Pigweed Ryegrass Silvergrass Spear thistle, Thornapple, Variegated thistle, Wild mustard, Wild oats, Wild turnip, Winter grass	Boom: 740g – 1.1 kg/ha Handgun: 185 – 280 g per 100 L Knapsack: 30 – 40 g per 15 L	<p>Always add Ammonium sulfate to the spraytank first and always add a suitable wetter. For specific mixing procedure refer the MIXING section.</p> <ul style="list-style-type: none"> • Apply as a directed or shielded spray or using wiper equipment. <p>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 plant.</p> <ul style="list-style-type: none"> • 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. • Hops – Apply in winter, prior to crop emerging from dormancy • Tea. Apply a maximum of 1.5 kg/ha by shielded boom or directed off-centre nozzle or 185 g/100 L 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>

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