

**CAUTION**

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

**Smart**

# **Glyphosate 450**

**HERBICIDE**

ACTIVE CONSTITUENT: 450 g/L GLYPHOSATE  
(present as the isopropylamine salt)

**GROUP M HERBICIDE**

Water soluble herbicide for non-selective control of many  
annual and perennial weeds.



**Contents: 1000L**

**IMPORTANT:  
READ THIS LEAFLET BEFORE USING THIS PRODUCT**

**Crop Smart**  
*better crop protection*

10/18

**APVMA APPROVAL NO: 60952/0410**

Distributed by:

Crop Smart Pty.Ltd  
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**STORAGE AND DISPOSAL**

Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Do not contaminate seed, feed or foodstuff. Do not re-use container for any purpose. Triple or preferably pressure 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 bury containers in a local authority landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.  
For REFILLABLE containers: Empty contents fully into application equipment. Close all valves and return to point of supply.

### SAFETY DIRECTIONS

Product will irritate the eyes and skin. Avoid contact with eyes and skin. When preparing product for use wear elbow-length PVC gloves and face shield or goggles.

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash contaminated clothing, gloves and face shield or goggles.

### FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 1126.

### MATERIAL SAFETY DATA SHEET (MSDS)

Additional information is listed in the MSDS, which is available from the supplier.

### CONDITION OF SALE

Crop Smart Australia Limited ("Crop Smart") shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever, or howsoever arising through negligence or otherwise in connection with the sale, supply, use or application of this product. The supply of this product is on the express conditions that the purchaser does not rely on Crop Smart's skill or judgement in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Crop Smart has any authority to alter these conditions

### DIRECTIONS FOR USE

**Restraints:** 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.

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	400 - 800mL pre tillering 800mL – 1.0L post tillering	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred allow regrowth to 6-8cm before spraying and use the higher rate.
		Annual phalaris (Canary grass), Annual ryegrass, Silvergrass, Winter grass	800mL – 1.0L pre tillering 1.0 – 1.2 L post tillering	<b>RATE SELECTION</b> Increase to <b>higher rates</b> late in the season or when treating under cold/overcast conditions.
		Calomba daisy, Capeweed, Doublegee/Spiny Emex	400 – 800mL less than 8cm dia/height 800mL – 1.2L greater than 8cm dia/height	<b>FULL DISTURBANCE</b> with a cultivation or sowing with a tyned implement may start one day after treatment (7 days if Dock, Phalaris, Skeleton weed, Soursob, or Sorrel are present) and should occur within 21 days after treatment. When treating light infestations or 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.
		Amsinckia, Fumitory, Paterson's curse, Saffron thistle, Scotch thistle, Spear thistle, Variegated thistle, Volunteer lupins, Wild turnip	800 ml – 1.0L less than 12cm dia 1.0- 1.2L greater than 12cm dia	<b>CROP ESTABLISHMENT</b> Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See <b>Crop Establishment</b> for directions.
		Dock (seedling)	800mL – 1.2 L	<b>ANNUAL RYEGRASS,</b>

		<p>Perennial phalaris, Skeleton weed fully emerged rosettes (NSW only), Sorrel, Soursob, Sub.clover</p>	<p>1.2 L</p>	<p><b>SILVERGRASS AND PERENNIAL GRASSES</b> Addition of Wetter TX 200mL/100L spray solution, may improve control. When treating dense infestations of Silvergrass, use of low volume nozzles (ASAE S572) and a spray volume of 70 L/ha or more is recommended to improve spray coverage. <b>TANK MIXTURES</b> 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 <b>Tank Mixtures</b> for directions. <b>PERENNIAL WEEDS</b> For Perennial phalaris, Soursob Skeleton weed and Sorrel, Smart Glyphosate 450 Herbicide will provide knockdown, seasonal suppression and reduction in treated plant numbers.</p>
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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 (continued)	TAS only	All the above weeds	1.2 – 2.4 L	<b>TASMANIA</b> Use 1.2 L/ha on annual weeds. Increase to 2.4 L/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 1 L/ha 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 VIC SA WA only	Barley grass, Volunteer cereals, Wild oats	800 mL – 1.2L	<p>Treat only actively growing weeds not under stress low moisture, frost, cold, disease or waterlogging. If heavy grazing of mature plants has occurred, allow regrowth to 6-8cm before spraying and use the higher rate.</p> <p><b>RATE SELECTION</b> Use the <b>lower rate</b> on young weeds; increase the <b>higher rate</b> 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.</p> <p><b>AERIAL APPLICATION</b> Use the higher rates. See <b>AERIAL EQUIPMENT</b>. <b>ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES</b> Add WETTER TX, 200mL/100L spray solution. When treating dense infestations of Silvergrass, use of low volume nozzles (ASAE S572) and a spray volume of 70 L/ha or more is recommended to improve plant spray coverage.</p> <p><b>TANK MIXTURES</b> For improved control of Sock, 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 <b>Tank Mixtures</b> for directions. Addition of ammonium sulfate, 2 kg/100L, may improve control when treating under adverse environmental conditions.</p> <p><b>PASTURE OR CROP ESTABLISHMENT</b> Do NOT sow into excessive trash. Trash may be removed by grazing after treatment. (continued over)</p>
		Brome grass, Canary grass, Capeweed, Variegated thistle, Winter grass	1.0 L – 1.6 L	
		Annual ryegrass, Paterson's curse, Saffron thistle, Scotch thistle, Silvergrass, Spear thistle, Wild mustard, Wild radish, Wild turnip	1.2 L – 1.6 L	
		Erodium, Perennial phalaris, Plantain, Sorrel, Sub.clover, Yorkshire Fog	1.5 – 2.0 L	
		Dock, Flatweed	2.0 L	

SITUATION	STATE	WEEDS CONTROLLED	RATE Vol/ha	CRITICAL COMMENTS
SOUTHERN AUSTRALIA Prior to establishing a crop or pasture with an implement that gives minimal or no soil disturbance (continued)	NSW VIC SA WA only			Grazing may commence one day after treatment of annual weeds (small) and 7 days for perennial weeds. Delay grazing for three 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 <b>Crop Establishment</b> .  <b>AERIAL (OR SURFACE) SEEDING</b> 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	1.2 – 2.4 L	<b>TASMANIA</b> Use 1.2L/ha on annual weeds. Increase to 2.4 L/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 1 L/ha 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	800 mL – 1.2 L	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heaving grazing has occurred allow regrowth 6-8cm before spraying. <b>RATE SELECTION</b> Use lower rates on young weeds or where cultivation is to follow within 21 days. Increasing to the high rates where grasses reach full tillering or where broadleaf weeds reach stem elongation/budding. <b>ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES</b> Add WETTER TX at 200 mL/100L spray solution. When treating dense infestations of Silvergrass, use low volume nozzles (ASAE S572) and spray volume of 70 L/ha or more is recommended to improve plant spray coverage.
		Annual ryegrass Brome grass Capeweed Paterson's curse Saffron thistle Scotch thistle Silvergrass Spear thistle Wild mustard Wild radish Wild turnip	1.2 L – 1.6 L	
		Hoary cress Soursob	1.2 L	

SITUATION	STATE	WEEDS CONTROLLED	RATE Vol/ha	CRITICAL COMMENTS
SOUTHERN AUSTRALIA To commence a fallow	NSW VIC SA WA only	Couch	1.2 L – 2.4 L	<b>COUCH:</b> 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. The use of LI-700 500mL/100L may improve control. <b>TANK MIXTURES</b> Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See <b>TANK MIXTURES</b> for directions.
		Bathurst Burr	1.5 – 2.4L	
	TAS only	All the above weeds	1.2 L – 2.4 L	
PASTURE TOPPING For annual grass Capeweed and Calomba daisy seed- set reduction.	WA SA VIC TAS NSW only	Barley grass Brome grass Capeweed Silvergrass	240 mL – 360 mL	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 of treatment. Do NOT apply to clover or medic crops intended for seed or hay.
		Annual ryegrass Calomba daisy	360 mL	
SEED-HEAD SUPPRESSION OF PERENNIAL GRASSES	VIC TAS NSW WA SA only	Bentgrass	300 – 500 mL	<b>TIMING</b> 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. <b>FOLLOW-UP MANAGEMENT</b> Graze hard after spraying.

SITUATION	STATE	WEEDS CONTROLLED	RATE Vol/ha	CRITICAL COMMENTS
BENT GRASS INFESTED PASTURE For control/suppression prior to establishing crops or improved pasture species	VIC TAS only	Most annual weeds and Bent grass	2.0 L	<b>TIMING</b> 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. <b>FOLLOW-UP MANAGEMENT</b> Full disturbance with a tyned implement should follow 10-21 days after spraying. Then follow with a summer crop, and/or re-seeded pasture or crop the following autumn.
PASTURE MANIPULATION For suppression or control of pastures species prior to drilling improved pasture, forage species, Soybeans or Leucaena. <b>BAND SPRAYING:</b> May also be applied as a band or strip spray	NSW VIC WA only	Carpet grass Kikuyu Paspalum	1.1 - 4.8L	<b>RATE SELECTION</b> For suppression, apply the low rate. Where complete control is required apply up to the high rate. <b>BAND SPRAYING:</b> 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.
	QLD only	Carpet grass Paspalum	1.1 – 4.8 L	Excessive dust created in the seedling operation may reduce herbicide activity. Pasture seed must be drilled at the appropriate depth and covered by soil. <b>LUCAENA (QLD ONLY)</b> Apply 2 L/ha through a single taper fan nozzle LFI-80 mounted at the rear of the single row planter providing a 1 m swath. Planting rows to be 4 m apart.
		Kikuyu	500mL – 4.8 L	
		Barbed wire grass Black speargrass Love grasses Red Natal grass Wire grasses	2.4 L	
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	2.4 L - 3.2L	<b>TIMING</b> Graze heavily, then remove 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). <b>APPLICATION</b> Increasing to the higher rate may give more effective reductions. If aerial spraying, see <b>AERIAL EQUIPMENT.</b>  <b>FOLLOW UP MANAGEMENT</b> Sowing may start from 14 days after spraying. It is essential that correct follow-up pasture establishment and management occurs after each treatment. Spot treatment will limit re-infestation.

SITUATION	STATE	WEEDS CONTROLLED	RATE Vol/ha	CRITICAL COMMENTS
NORTHERN AUSTRALIA In fallows or prior to sowing a crop	QLD NSW only	Annual phalaris (Canary grass), Barley grass, Volunteer cereals, Wild oats	400 – 800mL	<p>Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred allow regrowth to 6-8cm before spraying. 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> <p><b>RATE SELECTION</b> 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> <p><b>CROP ESTABLISHMENT</b> Sowing should not proceed until conditions allow the formation of a satisfactory seeded. See Crop Establishment for directions.</p> <p><b>TANK MIXTURES</b> 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> <p><b>AERIAL APPLICATION</b> For Instructions on aerial application, under hot conditions, see <b>AERIAL EQUIPMENT</b>. Do not apply by aircraft when temperature is above 30°C.</p>
		Barnyard grass, Bathurst burr, grass, Columbus grass (seedling), Liverseed grass, Native Millet, Stinkgrass (Lovegrass), Volunteer sorghum	800 mL – 1.6L	
		Australian bluebell (QLD only) Cudweed, Fumitory, Mexican poppy, New Zealand spinach, Saffron thistle, Spear thistle, Spurge, Stinking goosefoot	800mL – 1.2L	
		Black (giant) pigweed, Boggabri weed, Caltrop (Yellowvine), Indian hedge mustard, Mintweed, Summer grass	400 – 800 mL up to 5 true leaves or 3cm dia/height 800 mL – 1.2 L greater than 5 true leaves or 3cm dia/height	
		African turnip weed, Deadnettle, Sweet summer grass, Variegated thistle, Volunteer sunflower	600 – 800mL up to 5 true leaves or 3cm dia/height 800mL – 1.6 L greater than 3 cm dia/height	
		Annual ground cherry (Gooseberry), Bladder ketmia, Camel melon, False castor oil plant/Thornapple, Noogoora burr, Turnip weed, Wild lettuce, Wild turnip, Wireweed	800 mL–1.2L prior to stem elongation/ budding. After that use 400 mL– 1.2L plus 500 –700 MI 2,4-D ester (800g/L) or 1.2 – 1.6 L alone	
		Pigweed	800 mL – 1.6 L up to 20cm dia	
		Prickly Paddy Melon	770mL – 1.6L plus 80mL Triclopyr 600	
			DO NOT add crop oil.	



SITUATION	STATE	WEEDS CONTROLLED	RATE Vol/ha	CRITICAL COMMENTS
NORTHERN AUSTRALIA In fallows or prior to sowing a crop	QLD NSW only	Sowthistle/ milkthistle	<b>600 – 800 mL</b> rosettes up to 3 cm dia <b>800mL – 1.6 L</b> greater than 3cm dia	Previously grazed plants may be difficult to control without allowing full recovery.
		Couch	<b>1.2 – 2.4 L</b>	Use the higher rate for 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. The use of LI 700 may improve control.
		Johnson grass	<b>1.6 – 2.4 L</b>	Use the higher rate on plants approaching seedhead stage. Apply to plants with a minimum of 30cm new growth. Sequential treatments will be required for long term control.
		Nutgrass	<b>2.4 + 2.4 L</b>	Make first application to actively growing plants when at least 20% have reached the head stage (normally about Feb). After allowing maximum re-emergence to occur (normally in 6-8 weeks), it is essential to make a second application. <b>NOTE</b> Followup 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	<b>1.2 or 1.6 L</b>	DO NOT apply if crop is under stress from low moisture, frost, cold or waterlogging. <b>RATE SELECTION</b> 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. <b>TIMING</b> Apply when grain moisture is less than 25%. Application can be made when moderate browning has occurred. <b>CAUTION</b> 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. <b>CAUTION</b> Sorghum may be naturally toxic to stock.

SITUATION	STATE	WEEDS CONTROLLED	RATE Vol/ha	CRITICAL COMMENTS
SORGHUM CONTROL Post-harvest	QLD NSW only	Sorghum stubble, grain sorghum	<b>800 mL-1.2 L</b> for fresh regrowth from slashed stubble <b>1.2-1.6 L</b> for standing stubble if sufficiently green and for fresh spring regrowth	APPLY UNDER GOOD GROWING CONDITIONS ONLY. DO NOT apply if plants are under stress from low moisture, frost, cold or waterlogging. <b>SLASHED STUBBLE AND SPRING REGROWTH</b> apply when fresh regrowth is at least 20cm high. <b>STANDING STUBBLE</b> Apply only if sufficient green leaf is present. If grazing has occurred allow regrowth to 20cm before treatment. <b>RATE SELECTION</b> Use the lower rate for knockdown and regrowth suppression where cultivation is to follow. Increase to the higher rate for improved regrowth control. <b>NOTE</b> Variable results occur where the crop has been subject to stress or growing conditions are marginal. <b>CAUTION</b> Sorghum may be naturally toxic to stock.
SUGAR CANE Ratoon spray out	Qld NSW only	Sugar cane ratoon regrowth	4.8 - 7.2L	APPLY UNDER GOOD GROWING CONDITIONS ONLY to actively growth ratoons 60-120 cm tall. Do NOT apply if plants are under stress from low moisture or waterlogging. Use the lower rate for suppression or where cultivation is to follow. Use higher rate for control.
RICE Direct drilling	NSW only	Annual ryegrass Annual phalaris Canary grass Barley grass Burr medic Sub. Clover Winter grass	800mL- 1.0L	Smart Glyphosate 450 Herbicide 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 6-8cm before spraying. <b>ANNUAL RYEGRASS</b> Add Wetter TX at 200mL/100L of spray solutions and where dominant use the higher rate. <b>SOWING</b> Direct drilling may take place 1-14 days after spraying. Smart Glyphosate 450 Herbicide does not provide residual weed control. Permanent water and approved selective herbicides should be used to provide continuing control of weeds.

SITUATION	STATE	WEEDS CONTROLLED	RATE Vol/ha	CRITICAL COMMENTS
Cotton pre-harvest Do not use on crops intended for seed production	NSW Qld only	Bathurst burr Noogoora burr Winter annual weeds including Sowthistle / milkthistle	1-2L	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 best results under these conditions, delay application until canopy re-opens following initial conditioning treatment. Where control of Nutgrass or Noogoora burr is required
		Nutgrass (seasonal suppression only)	2L	treatments should be applied prior to the onset of frosts. When tank mixed with defoliant, a slightly higher proportion of cotton leaf may be retained, particularly where the higher rate is used. Read and follow all label direction for the tank mix products.
Cotton: Shielded sprayers	NSW Qld only	Refer to <b>Weeds Controlled</b> section <b>Northern Australia:</b> In fallows or prior to sowing a crop		Apply Smart Glyphosate 450 Herbicide to weeds growing between crop rows using a shielded sprayer. Do not apply in crops less than 20cm high. Do not allow spray or spray drift to contact any part of the cotton plant as severe injury or destruction may result.

SITUATION	WEEDS CONTROLLED	STATE	BOOM L/ha	HANDGUN VOL/100L	KNAPSACK VOL/15L	CRITICAL COMMENTS
WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS, AND NON AGRICULTURAL AREAS (spot directed or wiper application is required for selectivity in established pasture and forests)	Bent Grass ( <i>Agrostis capillaris</i> )	Vic, Tas only	2L	400mL	60mL	Apply to actively growing plants in late Spring but before Summer drought stress. Pasture should not be heavily grazed at spraying. Bent grass should have full leaf growth and some seed head development. Note: Bent grass re-establishes vigorously from seed in the soil. Follow up management is required to limit seedling re-establishment. Application of this product may be followed by a Spring crop, and/or re-seeding pasture or crop the following autumn.
	Bitou Bush/ Boneseed ( <i>Chrysanthemoides monilifera</i> )	NSW, ACT, QLD, VIC, TAS ONLY	-	800mL	120mL	Apply to actively growing plants. Do not apply during periods of drought stress. Spray to wet all foliage. Further treatment may be necessary to restrict seedling re-establishment.
	Blackberry ( <i>Rubus fruticosus</i> .)	All States	-	800mL- 1L	120 - 160mL	Apply from flowering to leaf fall generally January to May). Plants should not be under stress of high temperature, drought or frost. Spray to wet all foliage. Use the higher rate on old, dense infestations over 1.75 m high. Visible symptoms may not be fully apparent until the next season. Burning (after complete brown out), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Use of CDA equipment is not recommended. TAS ONLY- Do not spray bushes bearing mature fruit.
	Blady Grass ( <i>Imperata cylindrica</i> )	NSW, ACT, Qld only	7.2L	1L	160mL	Apply to actively growing plants when most plants have reached the head stage.
	Boxthorn, African ( <i>Lycium ferocissimum</i> )	All States		560 – 800 mL	80 - 120 mL	Use the lower rate for young bushes; increase to the higher rate for large, mature bushes. Spray to wet all foliage. DO NOT spray during hot, dry summer periods. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Use of CDA equipment is not recommended.

<p>WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS, AND NON AGRICULTURAL AREAS (spot directed or wiper application is required for selectivity in established pasture and forests)</p>	<p>Bracken (<i>Pteridium esculentum</i>)</p>	<p>All States</p>	<p>-</p>	<p>1.2L</p>	<p>180mL</p>	<p>For best control Wiper application is recommended. Refer to Wiper equipment under General Instructions. Multirope equipment is preferred. Double pass application is required for pipewick equipment. *Bracken should be slashed in Spring/Summer prior to treatment . Apply in March/May to fully unfurled actively growing fronds but prior to frosts. Visible symptoms may be slow to develop and may not be fully apparent until the next season. Complete control will not be achieved by one application. Retreatment is recommended, preferably associated with pasture improvement.</p>
	<p>Brown beetle grass</p>	<p>NSW, ACT only</p>				
	<p>Carpet grass (<i>Axonopus</i> spp.)</p>	<p>All States</p>	<p>2.4L</p>	<p>400mL</p>	<p>60mL</p>	<p>Apply to actively growing plants at early head stage.</p>
	<p>Cocksfoot (<i>Dactylis glomerata</i>)</p>	<p>All States</p>	<p>2.4L</p>	<p>560mL</p>	<p>80mL</p>	<p>Apply to actively growing plants at early head stage.</p>
	<p>Couch (<i>Cynodon dactylon</i>)</p>	<p>All States</p>	<p>7.2L</p>	<p>1L</p>	<p>160mL</p>	<p>Apply to actively growing plants when most plants are at the early head stage. in WA and SA apply in Oct-November for best results.</p>
	<p>Crofton Weed (<i>Eupatorium adenophorum</i>)</p>	<p>NSW, ACT, QLD only</p>	<p>400mL</p>	<p>60mL</p>	<p>-</p>	<p>Apply to plants with full foliage which are actively growing. Further treatment and/or pasture improvement are recommended to restrict seedling re-establishment.</p>

WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS, AND NON AGRICULTURAL AREAS (spot directed or wiper application is required for selectivity in established pasture and forests)	Cumbungi ( <i>Typha</i> spp.)	All States	7.2L	1.0L	180mL	Apply to actively growing plants at the early head to full head stage (summer to autumn). Re-treatment may be required to restrict seedling re-establishment. For application by wiper equipment refer to Wiper equipment under General Instructions. Use of wiper equipment is not recommended for Cumbungi in Tasmania.
	Flat Weed /Cat's Ear ( <i>Hypochoeris radicata</i> )	All States	2.4L	560mL	80mL	Apply to fully developed rosettes at early flowering stage.
	Glyceria, Water meadow grass ( <i>Glyceria maxima</i> )	Tas only	4.8L	800mL	120mL	Apply to actively growing plants at the mature head stage in late summer autumn. Add a non-ionic surfactant (eg Agral 600) at 200-250 mL/100L. Control of Glyceria is only available in dry drains and channels and dry margins of dams, lakes and streams. Refer to PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT.
	Gorse (Furze) ( <i>Ulex europaeus</i> )	All States	-	800mL + Pulse 200mL	-	Apply all year round, but only to actively growing plants. Always add Pulse, otherwise reduced results will occur. Spray to wet all foliage. Burning (after complete brown out), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth.
	Groundsel Bush ( <i>Baccharis halimifolia</i> )	QLD only	-	560mL - 800mL	80mL - 120mL	Apply to actively growing plants. DO NOT apply during winter, or during periods of Summer drought stress. Use the higher rate for plants over 2m tall. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to control seedlings and/or regrowth.  LOW VOLUME APPLICATION: (eg Splatter gun and Gas Gun) Use 1:9 (10%) mixture of product: water. Apply 2 x 2mL dose per 0.5m bush height. Ensure spray contacts foliage. Use of CDA equipment is not recommended.
	Guinea Grass ( <i>Panicum maximum</i> )	All States	7.2L	1L	160mL	Apply to actively growing plants when most have reached the early head stage. For application by Wiper equipment see WIPER EQUIPMENT in the General Instructions.
	Hawthorn ( <i>Crataegus</i> spp.)	NSW, ACT, VIC, TAS,WA, SA only	-	800mL- 1L	120- 160mL	Apply from flowering to leaf fall when plants are actively growing. Spray to wet all foliage. Use the higher rate for plants over 2m tall. Burning (after complete brown out), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. LOW VOLUME APPLICATION (eg Splatter Gun or Gas Gun) : Use 1:9 (10%) mixture of product water. Apply 2 x 2mL dose per 0.5m bush height. Ensure spray contacts foliage

<p>WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS, AND NON AGRICULTURAL AREAS (spot directed or wiper application is required for selectivity in established pasture and forests)</p>	<p>Hoary Cress (<i>Cardia draba</i>)</p>	<p>NSW, ACT, Tas, VIC only</p>	<p>1.2L</p>	<p>400mL</p>	<p>60mL</p>	<p>For maximum long term reduction apply from late July to early September to at the late rosette to flowering stage. Plants should be actively growing and not under stress from drought, frost or waterlogging. Application may be integrated with long fallow. Cultivation may start 7 days after spraying. Wiper equipment may be used where sufficient stem elongation occurs. For application by Wiper equipment see WIPER EQUIPMENT in the General Instructions</p>
	<p>Johnson Grass (<i>Sorghum halepense</i>) Kangaroo Grass (<i>Themeda australis</i>) Kikuyu (<i>Pennisetum clandestinum</i>)</p>	<p>All States</p>	<p>4.8L</p>	<p>800mL</p>	<p>120mL</p>	<p>Apply to actively growing plants when most have reached the early head stage. May be applied by Wiper equipment to Johnson Grass, off type and volunteer sorghum. Refer to Wiper Equipment.</p>
	<p>Lantana (<i>Lantana camara</i>)</p>	<p>NSW, QLD, ACT only</p>	<p>-</p>	<p>800mL</p>	<p>120mL</p>	<p>Apply to actively growing plants with full foliage. Ensure complete treatment of individual plants. DO NOT spray during periods of summer drought stress.  Burning (after complete brown out), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. LOW VOLUME APPLICATION (eg Splatter Gun or Gas Gun): . Use 1:9 (10%) mixture of product:water. Apply 2 x 2mL dose per 0.5m bush height. Ensure spray contacts foliage. SPRINKLER SPRAYER: Apply 6mL of a 10% solution to every square metre of treated area. Use of CDA equipment is not recommended.</p>
	<p>Mistflower (<i>Eupatorium riparium</i>)</p>	<p>NSW, ACT, QLD only</p>	<p>-</p>	<p>400mL</p>	<p>60mL</p>	<p>Apply to plants with full foliage which are actively growing. Spray to thoroughly wet all foliage Further treatment and/or pasture improvement are recommended to restrict seedling re-establishment. SPRINKLER SPRAYER: Apply 3mL of a 10% solution to every square metre of treated area.</p>

WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS, AND NON AGRICULTURAL AREAS (spot directed or wiper application is required for selectivity in established pasture and forests)	Nutgrass ( <i>Cyperus rotundus</i> ) Do not refer to other <i>Cyperus</i> spp. Which may be locally known as Nutgrass	All States	4.8L	800mL	120mL	Apply to actively growing plants in late Summer ie February – mid April when at least 20-25% have reached the head stage. Apply a split application 6-8 weeks apart.
	Paragrass ( <i>Brachiara mutica</i> )	All States	7.2L	1L	160mL	Apply to actively growing plants when most plants have reached the early head stage.
	Paspalum ( <i>Paspalum dilatatum</i> )	All States	4.8L	800mL	120mL	
	Phalaris ( <i>Phalaris aquatica</i> )	SA, VIC, NSW, ACT only	2.4 - 4.8L	400mL - 800mL	60 - 120mL	Apply to actively growing plants during winter-spring. Use Lower Rate where only knockdown is required eg prior to burning for a fire break. Burning should not take place for 2 - 3 weeks after spraying. For longer term control increase to the higher rate.
	Phragmites, Common Reed ( <i>Phragmites australis</i> )	All States	7.2L	1L	160mL	Apply to actively growing, fully developed plants approaching the early head stage. Visible symptoms of control may be slow to develop and may not be fully apparent until the next season. For application by wiper equipment <b>refer to Wiper Equipment section</b> under General Instructions.
	Plantain ( <i>Plantago</i> sp.)	All States	2.4L	560mL	80mL	Apply to actively growing plants, fully developed plants approaching the early head stage. Visual symptoms of control may be slow to develop and may not be apparent until the next season. For application by wiper equipment <b>refer to Wiper Equipment section</b> under General Instructions.



<p>WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS, AND NON AGRICULTURAL AREAS (spot directed or wiper application is required for selectivity in established pasture and forests)</p>	<p>Prairie Grass (<i>Bromus unioloides</i>), Qld Blue Grass (<i>Dichanthium sericeum</i>), Red-leg Grass (<i>Bothriochloa ambigua</i>), Rhodes Grass (<i>Chloris gayana</i>)</p>	All States	4.8L	80mL	120mL	Apply to actively growing plants when most plants have reached the early head stage.	
	<p>Rope Twitch (<i>Agropyron repens</i>)</p>	Tas, Vic only	4.8L	800mL	120mL	Apply in late summer-autumn to actively growing plants with foliage at least 20cm high. To ensure maximum shoot emergence the area should NOT be cultivated in the period from the preceding Winter until the time of spraying.	
	<p>Rushes (<i>Juncus spp.</i>)</p>	All States	-	-	-	Apply by Wiper equipment to actively growing. Where there is a large proportion of dead foliage, preslashing is recommended. Allow adequate regrowth before treatment. Refer "Wiper equipment" for application instructions. Control of rushes, Tall and Umbrella Sedge is only available in dry drains and channels and dry margins of dams, lakes and streams. Please refer to PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT.	
	<p>Sedge – Tall, Umbrella (<i>Carex spp.</i> And <i>Cyperus spp.</i>)</p>	NSW, ACT, Vic, Tas only	-	-	-		
				1.6-3.2L	400-800 mL	60-120 mL	Apply to actively growing plants in flowering to post-flowering period (Oct/April). Use the lower rate only if the stand has been slashed prior to treatment. Re-treatment may be necessary. Visible symptoms may not be fully apparent for up to 3 months. Use of CDA equipment is not recommended.
	<p>Silverleaf Nightshade (<i>Solanum elaeagnifolium</i>)</p>	NSW, ACT only	-	1.6L	240mL	Use only under good soil moisture conditions. Apply to actively growing plants in the late flowering to berry stage. Repeat spraying will be necessary to restrict growth and seedling re-establishment.	
	<p>Sorrel (<i>Rumex acetocella</i>)</p>	All States	4.8L	800mL	120mL	Apply to actively growing plants when the majority of plants are at the early bud stage.	

<p>WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS, AND NON AGRICULTURAL AREAS (spot directed or wiper application is required for selectivity in established pasture and forests)</p>	Soursob ( <i>Oxalis pes-caprae</i> )	NSW, ACT, VIC, TAS, WA, SA only	1.2L	400mL	60mL	For maximum long term reduction apply from late July to early September before natural plant yellowing (senescence) occurs. Soursob should be actively growing and not under stress from drought or water logging. If heavy frosting has occurred allow recovery before spraying. If heavy grazing has occurred allow recovery of foliage to at least 5 cm before spraying. In Conservation Tillage (eg direct drilling) situations application from May-July immediately prior to sowing will give control of top growth and give partial reduction of plant numbers. Refer CONSERVATION TILLAGE USES table.
	St John's Wort ( <i>Hypericum perforatum</i> )	All States	2.4L	400mL	60mL	Apply to actively growing plants at flowering to post flowering, procumbent stem stage (about Nov-May). Re-treatment or over sowing with improved pasture species may be necessary to prevent seedling re-establishment.
	Sweet Briar ( <i>Rosa rubiginosa</i> )	NSW, ACT, VIC, TAS, WA, SA only	-	1.2L- 1.6L	180 - 200mL	Apply to actively growing plants from late flowering to leaf fall. Spray to wet all foliage. Use the higher rate on bushes over 1.5m tall. Burning (after complete brown out), pasture improvement and/or further re-treatment are recommended to control seedlings and/or regrowth. LOW VOLUME APPLICATION: (eg Splatter Gun and Gas Gun): Use 1:9 (10%) mixture of product:water. Apply 2 x 5mL dose per 0.5 m bush height. Ensure spray contacts foliage.
	Thistle - Artichoke ( <i>Cynara cardunculus</i> )	SA, VIC only	2.4L	400mL	60mL	Apply at the rosette to early head stage.
	Thistle - Californian ( <i>Cirsium arvense</i> )	Vic, Tas only	4.8L	400mL	60mL	Apply to actively growing plants at the flowering stage. To ensure maximum shoot emergence the area should not be cultivated prior to spraying. Re-treatment and/or pasture improvement may be necessary to restrict seedling re-establishment.
	Water Hyacinth	All States	4.8 – 7.2L	800mL-1L	120 – 160 mL	Apply when plants are actively growing and at or beyond the early bloom stage of growth. Use the higher rate for dense infestations. Control of water hyacinth is only available in dry drains and channels and dry margins of dams, lakes and streams. Please refer to PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT.
	Water lettuce	All States	-			Best results are obtained from mid-summer through to winter. Use the higher rate on dense infestations. Control of water hyacinth is only available in dry drains and channels and dry margins of dams, lakes and streams. Please refer to PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT.

WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS, AND NON AGRICULTURAL AREAS (spot directed or wiper application is required for selectivity in established pasture and forests)	Water Lily, Yellow	All States	4.8 L	800 mL	120 mL	Apply when there is a maximum emergence of floating leaves. Allow 2-3 weeks for symptoms to develop, then retreat any unaffected plants. Use low volume sprayer. Control of Yellow waterlily is only available in dry drains and channels and dry margins of dams, lakes and streams. Please refer to PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT.
	Water couch ( <i>Paspalum distichum</i> , <i>Paspalum paspaloides</i> )	All States	7.2 L	1L	160 mL	Apply to actively growing plants in late summer-autumn (February-March). DO NOT treat after March because of the onset of winter dormancy. Full results may not be visible until the following spring. Not more than 1/4 of the weed should be submerged at the time of treatment. Control of water couch is only available in dry drains and channels and dry margins of dams, lakes and streams. Please refer to PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT.
	Yorkshire Fog ( <i>Holcus lanatus</i> )	All States	2.4L	560mL	80mL	Apply to actively growing plants at the early head stage.

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

**WITHHOLDING PERIOD:**

**PRE-HARVEST SORGHUM: DO NOT HARVEST FOR 7 DAYS**

**OTHER USES: NOT REQUIRED WHEN USED AS DIRECTED**

## GENERAL INSTRUCTIONS

Smart Glyphosate 450 Herbicide is a non-volatile, non selective, water soluble liquid herbicide with non-selective herbicidal activity. It 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.

Smart Glyphosate 450 Herbicide 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.

Smart Glyphosate 450 Herbicide may be used prior to sowing any crop (edible or non edible) but not prior to transplanting tomato seedlings.

A withholding period for grazing 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 of perennial weeds are present, to ensure absorption of Smart Glyphosate 450 Herbicide. Certain plants (eg. Soursob, variegated thistle) may be naturally toxic to stock. Where known toxic plants are present, do not allow stock to graze until complete browning of treated plants has occurred.

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.

Rainfall occurring up to 6 hours after application may reduce effectiveness. 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.

## RESISTANT WEEDS WARNING

GROUP	M	HERBICIDE
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Smart Glyphosate 450 Herbicide is a member of the Glycines group of herbicides. Smart Glyphosate 450 Herbicide has the inhibition of EPSP synthase mode of action. For weed resistance management Smart Glyphosate 450 Herbicide is a Group M herbicide. Some naturally occurring weed biotypes resistant to Smart Glyphosate 450 Herbicide and other inhibitors of EPSP synthase mode of action 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 Glyphosate 450 Herbicide or other inhibitors of EPSP synthase 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 Smart Glyphosate 450 Herbicide to control resistant weeds.

## CROP ESTABLISHMENT

Smart Glyphosate 450 Herbicide is recommended for control of emerged weeds prior to crop establishment. Suitable cultivation and/or sowing operations are required to provide seed bed conditions satisfactory for crop germination and development. Spraying early to control young weeds will favour preparation of suitable seed beds. 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 seed bed. 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

Smart Glyphosate 450 Herbicide mixes readily with water. **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. 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. Ensure the sprayer is free of any residue of previous spray materials. Use spray solutions promptly and certainly within 5 days since a gradual loss of activity will occur. Fill the spray tank with one half the required amount of clean water and add the proper amount of Smart Glyphosate 450 Herbicide. Mix well before adding the remaining portion of water. Add surfactant near the end of the filling process to minimize foaming. Placing the filling hose below the surface of the spray solution will prevent excessive foaming. Removing hose from tank immediately after the filling will prevent back siphoning into water source.

DO NOT use mechanical agitators as these may cause excessive foaming. Spray tanks, pumps, lines and nozzles should be thoroughly rinsed with clean water following application to prevent corrosion.

### **TANK MIXTURES/COMPATIBILITY**

Smart Glyphosate 450 Herbicide may be tank-mixed with the following herbicides, insecticides and additives. Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix products.

### **MIXING INSTRUCTIONS FOR ALL TANK MIXTURES**

1. Fill the spray tank 1/3 to 1/2 full with clean water and start agitation.
2. Use Spraymate Liase (Ammonium sulphate) where required.
3. Add recommended herbicide/insecticide/additive to the spray tank and mix thoroughly.
4. Add Smart Glyphosate 450 Herbicide and the remaining water. Mix thoroughly.
5. Add surfactant, if required, near the end of the filling process to minimize foaming.
6. Always maintain adequate agitation during application and use the tank mix promptly.

### **TANK MIXTURES – HERBICIDES**

Atrazine\*, flowable or granular, (Do not apply the tank mix for control of Barnyard grass or Liverseed grass), 2, 4-D ester, dicamba, Express, triclopyr 600, trifluralin, fluroxypyr, chlorsulfuron, simazine\* flowable or granular, Yield, pendimethalin, metsulfuron methyl, triasulfuron, Lontrel, L.V.E. MCPA and Striker. \*Ammonium sulfate may improve the performance of tank mixtures of Smart Glyphosate 450 Herbicide and atrazine or simazine. See directions below.

### **STRIKER**

The addition of Striker at 75 mL/ha to recommended rates of Smart Glyphosate 450 Herbicide prior to planting Wheat or Barley will improve knockdown and increase the speed at which treated weeds develop visible symptoms of phytotoxicity

### **TANK MIXTURES – INSECTICIDES**

Smart Glyphosate 450 Herbicide is compatible with the following insecticides: Dimethoate, Imidan, Le-mat Chlorpyrifos 500, Perfekthion EC 400, Sumithion ULV, and emulsifiable concentrates of dimethoate and fenitrothion.

Other insecticides have not been tested.

### **TANK MIXTURES – ADDITIVES**

#### **417g/L Ammonium sulphate (Spraymate Liase)**

**Rate:** 2kg or 2L per 100 litres spray solutions.

Spraymate Liase may be used as an adjuvant to alleviate the adverse conditions of high levels of calcium, magnesium and bicarbonate ions in water. The addition of Spraymate Liase to Smart Glyphosate 450 Herbicide, when used to control annual weeds, MAY improve the performance of Smart Glyphosate 450 Herbicide under adverse environmental conditions such as cool cloudy weather. Spraymate Liase may also improve the performance of tank mixtures of Smart Glyphosate 450 Herbicide and atrazine or simazine. Ammonium sulphate may be corrosive to metal parts of the sprayer. Thoroughly flush tanks, pumps and nozzles with water after use.

Solubility and impurity profiles of other forms of ammonium sulphate can vary and may reduce performance of Smart Glyphosate 450 or tank mixtures.

## **SURFACTANT ADDITION**

### **Spraymate LI 700 Surfactant**

Rate: 250mL – 500mL per 100L

The addition of Spraymate LI 700 Surfactant MAY improve weed control. At rates of 300mL – 500mL per 100L, Spraymate LI 700 may modify the droplet spectrum produced by CP and flat fan nozzles. This may reduce the proportion of FINE droplets produced by these nozzles.

### **Spraymate Activator**

Rate: 70mL – 125mL per 100L

General purpose non-ionic surfactants may increase the production of FINE and VERY FINE droplets, which are prone to drift when used through certain nozzle types.

### **Wetter TX Surfactant**

RATE 200mL/100L spray solution. Add when treating Annual Ryegrass, Silvergrass and Perennial grasses.

Wetter TX is NOT a general purpose surfactant and should be used only where recommended.

## **APPLICATION**

Smart Glyphosate 450 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. Clean all equipment after use by thoroughly washing with water.

## **BOOM EQUIPMENT**

Application of Smart Glyphosate 450 Herbicide in spray volumes of 25-100 L/ha is recommended. Use nozzles that produce a MEDIUM to COARSE spray quality at target (ASAE S572). Environmental conditions, including delta T wind speed, and the size and density of the target weeds, should be taken into consideration when selecting nozzles. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy.

## **AERIAL EQUIPMENT**

Aerial equipment may be used to apply Smart Glyphosate 450 Herbicide only in pasture or fallow situations prior to establishment of field crops, fodder crops, or new pasture, and for pre-harvest application to sorghum crops. Do NOT use in intensive horticultural cropping areas. Use recommended rates of Smart Glyphosate 450 Herbicide specified in this label up to a maximum limit of 3.2L/ha. For Micronair equipment, apply in a minimum spray volume of at least 20L/ha. Use nozzles that produce a MEDIUM to COARSE spray quality (ASAE S572) at the target are recommended. Swath width may need to be adjusted to take into account the aircraft type, wind conditions, target height and density.

DO NOT apply Smart Glyphosate 450 by aircraft in temperatures above 30°C and increase spray output to at least 30L/ha if temperatures rise above 25°C. Avoid application if humidity falls below 35%. In multiple product tank mixes a minimum water volume of 50L/ha is recommended and local advice should be sought. Correct mixing order is important.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove herbicide residues.

## **WIPER EQUIPMENT**

Wiper equipment (eg ropewick applicators) may be used to apply this product onto weeds growing in oilseed crops, sugarcane, cotton, seed and pod vegetables, and tree and vine crops specified in this label, and in pasture and non-crop areas. Avoid contact with desirable vegetation. Operate wiper equipment a minimum of 10 cm above the crop or pasture. Weeds should be at least 15 cm above the crop or pasture at time of application. Speed of travel should be no greater than 8 km/h. Best results are achieved at lower speeds and where two applications are made in opposite directions (double pass). Where weeds are of variable height, or occur in dense infestations or clumps, some plants may not be contacted by the herbicide solution. In these cases repeat treatment may be necessary. Mix only enough herbicide solution for immediate requirements. DO NOT store mixed solution for more than a few days. Flush out equipment with water after use.

Rate: Mix 1 L of this product with 2 L clean water to prepare 33% solution. This product may be used according to the above directions for suppression of control of many annual and perennial weeds. See various weeds controlled tables for specific use recommendations.

**Application on hilly terrain**

Spraying height may vary. Increase water volume to 30-80 L/ha and use nozzles that produce a COARSE spray quality at the target (ASAE S572).

**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 30L/ha, and nozzles that produce a COARSE spray quality at the target (ASAE S572).

DO NOT apply Smart Glyphosate 450 Herbicide by aircraft when temperature is above 30°C.

**PROTECTION OF CROP, NATIVE AND OTHER NON-TARGET PLANTS**

Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, since 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.

**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 and DO NOT allow spray to enter water. DO NOT allow water to return to dry channels within 4 days of application.

**STORAGE AND DISPOSAL**

Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Do not contaminate seed, feed or foodstuff. Do not re-use container for any purpose. Triple or preferably pressure 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 bury containers in a local authority landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

For REFILLABLE containers: Empty contents fully into application equipment. Close all valves and return to point of supply.

**SAFETY DIRECTIONS**

Product will irritate the eyes and skin. Avoid contact with eyes and skin. When preparing product for use wear elbow-length PVC gloves and face shield or goggles.

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash contaminated clothing, gloves and face shield or goggles.

**FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 1126.

**MATERIAL SAFETY DATA SHEET (MSDS)**

Additional information is listed in the MSDS, which is available from the supplier.

**CONDITION OF SALE**

Crop Smart Australia Limited ("Crop Smart") shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever, or howsoever arising through negligence or otherwise in connection with the sale, supply, use or application of this product. The supply of this product is on the express conditions that the purchaser does not rely on Crop Smart's skill or judgement in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Crop Smart has any authority to alter these conditions