CAUTION

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

Wipe-Out® 450
Non-Residual Herbicide

ACTIVE CONSTITUENT: 450 g/L GLYPHOSATE present as the ISOPROPYLAMINE SALT

GROUP **M** HERBICIDE

For non-selective control of most perennial and annual weeds as specified in the Directions for Use table.

ADAMA ESSENTIALS

adama.com **CONTENTS: 20 L, 110 L, 200 L, 1000 L, BULK**

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 stated.

SITUATION	WEEDS CONTROLLED	BOOM SPRAY RATES VOL/HA	STATE	CRITICAL COMMENTS
SOUTHERN AUSTRALIA Prior to sowing a crop or pasture with full soil disturbance by cultivation or sowing with a tyned implement	Barley Grass, Brome Grass, Volunteer Cereals, Wild Oats	400-800 mL pre- tillering, 800 mL-1.0L post tillering	NSW, ACT, Vic, SA, WA only	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred allow regrowth to 6-8 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. **FULL DISTURBANCE** with a cultivation or sowing with 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 8 cm dia/height), cultivation or sowing may start 6 hours after treatment and should occur within 21 days. **CROP ESTABLISHMENT** Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See Crop Establishment for directions. **ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES** Addition of Wetter TX 200 mL/100 L spray solution, may improve control. When treating dense infestations of Silvergrass, use of low volume nozzles (eg. SS11001, Hardi No. 10) and a spray volume of 70 L/ha or more is recommended to improve spray coverage. **TANK MIXTURES** For improved control of Clover add Cutlass® (dicamba). Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See Tank Mixtures for directions. **PERENNIAL WEEDS** For Perennial Phalaris, Soursob, Skeleton Weed and Sorrel, WIPE-OUT 450 will provide knockdown, seasonal suppression and reduction in treated plant numbers.
	Annual Phalaris, Annual Ryegrass, Silvergrass, Winter Grass	800 mL-1.0 L pre- tillering, 1.0-1.2 L post tillering		
	Capeweed, Doublegee (Spiny Emex, Three Cornered Jack), Calomba Daisy	400-800 mL less than 8 cm diameter/ height, 800 mL-1.2 L greater than 8 cm diameter/ height		
	Amsinckia, Fumitory, Paterson's Curse, Saffron Thistle, Scotch Thistle, Spear Thistle, Variegated Thistle, Volunteer Lupins, Wild Turnip	800 mL-1.0 L less than 12 cm diameter, 1 L-1.2 L greater than 12 cm diameter		
	Dock (seedling)	800 mL-1.2 L		

SITUATION	WEEDS CONTROLLED	BOOM SPRAY RATES VOL/HA	STATE	CRITICAL COMMENTS
SOUTHERN AUSTRALIA Prior to sowing a crop or pasture with full soil disturbance by cultivation or sowing with a tyned implement - *Continued*	Perennial Phalaris, Sorrel, Sub Clover, Soursob, Skeleton Weed – Fully Emerged Rosettes (NSW only)	1.2 L	NSW, ACT, Vic, SA, WA only	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred allow regrowth to 6-8 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. **FULL DISTURBANCE** with a cultivation or sowing with 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 8 cm dia/height), cultivation or sowing may start 6 hours after treatment and should occur within 21 days. **CROP ESTABLISHMENT** Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See Crop Establishment for directions. **ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES** Addition of Wetter TX 200 mL/100 L spray solution, may improve control. When treating dense infestations of Silvergrass, use of low volume nozzles (eg. SS11001, Hardi No. 10) and a spray volume of 70 L/ha or more is recommended to improve spray coverage. **TANK MIXTURES** For improved control of Clover add Cutlass® (dicamba). Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See Tank Mixtures for directions. **PERENNIAL WEEDS** For Perennial Phalaris, Soursob, Skeleton Weed and Sorrel, WIPE-OUT 450 will provide knockdown, seasonal suppression and reduction in treated plant numbers.
	All the Above Weeds	1.2 L-2.4 L	Tas only	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 Cutlass (dicamba). Observe Cutlass 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	Barley Grass, Volunteer Cereals, Wild Oats	800 mL-1.2 L	NSW, ACT, Vic, SA, WA only	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred, allow regrowth to 6-8 cm before spraying and use the higher rate. **RATE SELECTION** Use the lower rate on young weeds; increase 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 Aerial Equipment. **ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES** Add Wetter TX 200 mL/100 L spray solution. When treating dense infestations of Silvergrass, use of low volume nozzles (eg. SS11001, Hardi No. 10) and a spray volume of 70 L/ha or more is recommended to improve spray coverage. **TANK MIXTURES** For improved control of Dock, Sorrel and Sub clover, add Cutlass (dicamba). Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See Tank Mixtures for directions. Addition of ammonium sulfate, 2 kg/100 L, may improve control when treating under adverse environmental conditions. **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 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 Crop Establishment. **AERIAL (OR SURFACE) SEEDING** Delay seeding until trash is completely removed by grazing and/or plant decay. When establishing pasture, ensure application of fertilizer and insecticides and follow-up management is undertaken as required.
	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 L-2.0 L		
	Dock, Flatweed	2.0 L		
	All the Above Weeds	1.2 L-2.4 L	Tas only	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 Cutlass (dicamba). Observe Cutlass label directions and plant-back periods.

SITUATION	WEEDS CONTROLLED	BOOM SPRAY RATES VOL/HA	STATE	CRITICAL COMMENTS
SOUTHERN AUSTRALIA To commence fallow	Barley Grass, Volunteer Cereals, Wild Oats	800 mL-1.2 L	NSW, ACT, Vic, SA, WA only	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred, allow regrowth to 6-8 cm before spraying. **RATE SELECTION** Use the lower rate 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. **ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES** Add Wetter TX at 200 mL/100 L spray solution. When treating dense infestations of Silvergrass, use of low volume nozzles (eg. SS11001, Hardi No. 10) and a spray volume of 70 L/ha or more is recommended to improve spray coverage. **HOARY CRESS** Treat from late rosette to early flowering. **SOURSOB** Treat at tuber exhaustion. **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.
	Annual Ryegrass, Brome Grass, Silvergrass, Capeweed, Paterson's Curse (Rosette), Saffron Thistle, Scotch Thistle, Spear Thistle, Wild Mustard, Wild Radish, Wild Turnip	1.2 L		
	Hoary Cress, Soursob	1.2-1.6 L		
	Couch	1.2 L-2.4 L		
	All the Above Weeds	1.2 L-2.4 L	Tas only	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 Cutlass (dicamba). Observe Cutlass label directions and plant-back periods.
NORTHERN AUSTRALIA In fallows or prior to sowing a crop	Annual Phalaris, Barley Grass, Volunteer Cereals, Wild Oats	400-800 mL	Qld, NSW only	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred, allow regrowth to 6-8 cm 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. **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 or the addition of 2,4-D Ester. **CROP ESTABLISHMENT** Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See Crop Establishment for directions. **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. **AERIAL APPLICATION** For instructions on aerial application, under hot conditions, see Aerial Equipment. DO NOT apply by aircraft when temperature is above 30°C.
	Barnyard Grass, Button Grass, Columbus Grass (seedling), Liverseed Grass, Native Millet Stinkgrass (Lovegrass), Volunteer Sorghum	800 mL-1.6L		
	Amaranth, Australian Bluebell (Qld only), Cudweed, Fumitory, Mexican Poppy, New Zealand Spinach, Saffron Thistle, Spear Thistle, Spurge, Stinking Goosefoot	800 mL-1.2 L		
	Black (Giant) Pigweed, Boggabri Weed, Caltrop (Yellowvine), Indian Hedge Mustard, Mintweed, Summer Grass	400-800 mL up to 5 true leaves or 3 cm dia/height 800 mL-1.2 L greater than 5 true leaves or 3 cm dia/height		

SITUATION	WEEDS CONTROLLED	BOOM SPRAY RATES VOL/HA	STATE	CRITICAL COMMENTS
NORTHERN AUSTRALIA In fallows or prior to sowing a crop - *Continued*	African Turnip Weed, Deadnettle, Sweet Summer Grass, Variegated Thistle, Volunteer Sunflower	600-800 mL up to 5 true leaves or 3 cm dia/height 800 mL-1.6 L greater than 3 cm dia/height	Qld, NSW only	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred, allow regrowth to 6-8 cm 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. **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 or the addition of 2,4-D Ester. **CROP ESTABLISHMENT** Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See Crop Establishment for directions. **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. **AERIAL APPLICATION** For instructions on aerial application, under hot conditions, see Aerial Equipment. DO NOT apply by aircraft when temperature is above 30°C.
	Annual Ground Cherry (Gooseberry), Camel Melon, Bladder Ketmia, False Castor Oil Plant/ Thornapple, Noogoora Burr, Turnip Weed, Wild Lettuce, Wild Turnip, Wireweed	800 mL-1.2 L prior to stem elongation/ budding. After that use 400 mL-1.2 L plus 500-700 mL 2, 4-D ESTER (800 g/L) OR 1.2-1.6L		
	Pigweed	800 mL-1.6 L up to 20 cm dia		Use a higher rate on larger weeds. Control of Pigweed over a wide range of growth stages can be obtained with the addition of Lynx®. Observe re-cropping intervals.
	Sowthistle, Milkthistle (*Sonchus oleraceus*)	600-800 mL rosettes up to 3 cm dia 800 mL-1.6 L greater than 3 cm dia		Previously grazed plants may be difficult to control without allowing full recovery.
	Couch (*Cynodon dactylon*)	1.2 L-2.4 L		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.
	Johnson Grass (*Sorghum halapense*)	1.6 L-2.4 L		Use the higher rate on plants approaching seedhead stage. Apply to plants with a minimum of 30 cm new growth. Sequential treatments will be required for long term control.
	Nutgrass (*Cyperus rotundus*)	2.4 L + 2.4 L		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.

SITUATION	WEEDS CONTROLLED	BOOM SPRAY RATES VOL/HA	STATE	CRITICAL COMMENTS
PASTURE TOPPING For annual grass Capeweed and Calomba Daisy seed-set reduction.	Barley Grass, Brome Grass, Capeweed, Silvergrass	240-360 mL	NSW, ACT, Vic, Tas, SA, WA only	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	Bent Grass	300-500 mL	NSW, ACT, Vic, Tas, SA, WA only	**TIMING** Treat from late October to late November. Apply before seedheads have emerged. Use the higher rate where growth is excessive and renovation is intended the following Autumn. **FOLLOW-UP MANAGEMENT** Graze hard after spraying.
BENT GRASS INFESTED PASTURE For control/ suppression prior to establishing crops or improved pastures species	Most Annual Weeds and Bent Grass	2.0 L	Vic, Tas only	**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 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. BAND SPRAYING: May also be applied as a band or strip spray.	Carpet Grass, Kikuyu, Paspalum	1.1-4.8 L	NSW, ACT, Vic, WA only	**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. Adust 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 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.
	Carpet Grass, Paspalum	1.1-4.8 L	Qld only	
	Kikuyu	500 mL-4.8 L		
	Barbed Wire Grass, Blackspear Grass, Love Grass, Red Natal Grass, Wire Grasses	2.4 L		
POA TUSSOCK INFESTED PASTURE For reduction of ground cover allowing pasture renovation	Most annual weeds and suppression of Poa Tussock	2.4-3.2 L	Qld, NSW, ACT, Vic, Tas only	**TIMING** 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). **APPLICATION** Increasing to the higher rate may give more effective reductions. If aerial spraying, see Aerial Equipment. **FOLLOW-UP MANAGEMENT** 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.
SORGHUM CONTROL Pre-harvest	Sorghum, Grain Sorghum (*Sorghum bicolor*) DO NOT apply to varieties intended for seed production or varieties prone to lodging.	1.2 or 1.6 L	Qld, NSW, ACT only	DO NOT apply if crop is under stress from low moisture, frost, cold or waterlogging. **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. **TIMING** Apply when grain moisture is less than 25%. Application can be made when moderate browning has occurred. **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. **CAUTION** Sorghum may be naturally toxic to stock.

SITUATION	WEEDS CONTROLLED	BOOM SPRAY RATES VOL/HA	STATE	CRITICAL COMMENTS
SORGHUM CONTROL Post-harvest	Sorghum Stubble, Grain Sorghum (*Sorghum bicolor*)	800 mL-1.2 L For fresh regrowth from slashed stubble 1.2-1.6 L For standing stubble if sufficiently green and for fresh spring regrowth	Qld, NSW, ACT only	**APPLY UNDER GOOD GROWING CONDITIONS ONLY** DO NOT apply if plants are under stress from low moisture, frost, cold or waterlogging. **SLASHED STUBBLE AND SPRING REGROWTH** Apply when fresh regrowth is at least 20 cm high. **STANDING STUBBLE** Apply only if sufficient green leaf is present. If grazing has occurred allow regrowth to 20 cm before treatment. **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. **Note:** Variable results occur where the crop has been subject to stress or growing conditions are marginal. **CAUTION** Sorghum may be naturally toxic to stock.
SUGARCANE Ratoon Spray Out	Sugarcane Ratoon Regrowth (*Saccharum officinale*)	3.2 L-7.2 L	Qld, NSW only	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 or waterlogging. Use the lower rate for suppression or where cultivation is to follow. Use the higher rate for control.
RICE Direct Drilling	Annual Ryegrass (*Lolium rigidum*), Annual Phalaris, Canary Grass (*Phalaris* spp.), Barley Grass (*Hordeum leporinum*), Burr Medic (*Medicago* spp.), Sub Clover (*Trifolium subterranean*), Winter Grass (*Poa annua*)	800 mL-1.0 L	NSW only	WIPE-OUT 450 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. **ANNUAL RYEGRASS** Add Wetter TX at 200 mL/100 L of spray solution, and, where dominant, use the higher rate. **SOWING** Direct drilling may take place 1-14 days after spraying. WIPE-OUT 450 does not provide residual weed control. Permanent water and approved selective herbicides should be used to provide continuing control of weeds.
COTTON Pre-harvest DO NOT use on crops intended for seed production	Bathurst Burr (*Xanthium spinosum*), Noogoora Burr (*Xanthium pungens*), Winter annual weeds including Sowthistle/ Milkthistle (*Sonchus oleraceus*)	1-2 L	Qld, NSW only	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 Escalate® 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, treatments 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 the tank mix products.
	Nutgrass (*Cyperus rotundus*) seasonal suppression only	2 L		
COTTON Shielded Sprayers	Refer to weeds controlled in the section Northern Australia: In fallows or prior to sowing a crop.	-	Qld, NSW only	Apply WIPE-OUT 450 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 plant as severe injury or destruction may result.

SITUATION	WEEDS	APPLICATION RATES			STATE	CRITICAL COMMENTS
		Boom-spray per Ha	Handgun per 100 L Water	Knap-sack per 15 L		
WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS AND NON-AGRICULTURAL AREAS. (Spot directed or wiper application is required for selectivity in established pastures and forests)	Bent Grass (*Agrostis tenuis*)	2 L	400 mL	60 mL	Vic, Tas only	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 by re-seeding pasture or crop the following Autumn.
	Bitou Bush/ Boneseed (*Chrysanthemoi-des monilifera*)	-	800 mL	120 mL	Qld, NSW, ACT, Vic, Tas only	Apply to actively growing plants. Spray to wet all foliage. DO NOT apply during periods of drought stress. Further treatment may be necessary to restrict seedling re-establishment.
	Blackberry (*Rubus fruticosus*)	-	800 mL -1 L	120-160 mL	All States	Apply from flowering to leaf fall (generally January-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 brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Use of CDA equipment is not recommended. In Tasmania, do not treat bushes bearing mature fruit.
	Blady Grass (*Imperata cylindria*)	7.2 L	1.0 L	160 mL	Qld, NSW, ACT only	Apply to actively growing plants when most have reached the head stage.
	Boxthorn, African (*Lycium ferocissimum*)	-	560-800 mL	80-120 mL	All States	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.
	Bracken (*Pteridium esculentum*)	-	1.2 L	180 mL	All States	Use of wiper equipment 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 from one application. Repeat treatment is recommended, preferably associated with pasture improvement.
	Brown Beetle Grass				NSW, ACT only	
	Carpet Grass (*Axonopus* spp.)	2.4 L	400 mL	60 mL	All States	Apply to actively growing plants at the early head stage.
	Cocksfoot (*Dactylis glomerata*)	2.4 L	560 mL	80 mL		
	Couch (*Cynodon dactylon*)	7.2 L	1.0 L	160 mL		Apply to actively growing plants when most have reached the early head stage. In SA and WA apply to active plants during October-November for best results.
	Crofton Weed (*Eupatorium adenophorum*)	-	400 mL	60 mL	Qld, NSW, ACT only	Apply to actively growing plants with full foliage. Further treatment and/or pasture improvement are recommended to restrict seedling re-establishment.
	Cumbungi (*Typha* spp.)	7.2 L	1.0 L	160 mL	All States	Apply to actively growing plants at the early head to full head stage (Summer-Autumn). Re-treatment may be required to restrict seedling re-establishment. For application by wiper equipment refer WIPER EQUIPMENT section under General Instructions. Use of wiper equipment is not recommended for Cumbungi in Tasmania.
	Flatweed (Cat's Ear) (*Hypochoeris radicata*)	2.4 L	560 mL	80 mL		Apply to fully developed rosettes at the early flowering stage.
	Glyceria, Watermeadow Grass (*Glyceria maxima*)	4.8 L	800 mL	120 mL	Tas only	Apply to actively growing plants at the mature head stage in late Summer-Autumn. Add a non-ionic surfactant (Wetspray® 600) at 200-250 mL/100 L. Control of Glyceria 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.
	Gorse (Furze) (*Ulex europaeus*)	-	800 mL plus Pulse* 200 mL	-	All States	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 brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or growth.

SITUATION	WEEDS	APPLICATION RATES			STATE	CRITICAL COMMENTS
		Boom-spray per Ha	Handgun per 100 L Water	Knap-sack per 15 L		
WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS AND NON-AGRICULTURAL AREAS. (Spot directed or wiper application is required for selectivity in established pastures and forests) – *Continued*	Groundsel Bush (*Baccharis halimifolia*)	-	560-800 mL	80-120 mL	Qld only	Apply to actively growing plants. DO NOT apply during Winter, or during periods of Summer drought stress. Use the higher rate on bushes over 2 m tall. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to control seedlings and/or regrowth. **LOW VOLUME APPLICATION** (e.g. Splatter Gun and Gas Gun) Use 1:9 (10%) mixture of product:water. Apply 2 x 2 mL dose per 0.5 m bush height. Ensure spray contacts all foliage. Use of CDA equipment is not recommended.
	Guinea Grass (*Panicum maximum*)	7.2 L	1.0 L	160 mL	All States	Apply to actively growing plants when most have reached the early head stage. For application by wiper equipment refer WIPER EQUIPMENT under General Instructions.
	Hawthorn (*Crataegus* spp.)	-	800 mL -1.0L	120-160 mL	NSW, ACT, Vic, SA, WA, Tas only	Apply to actively growing plants from flowering to leaf fall. Spray to wet all foliage. Use the higher rate on bushes over 2 m tall. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. **LOW VOLUME APPLICATION** (e.g. Splatter Gun and Gas Gun): Use 1:9 (10%) mixture of product:water. Apply 2 x 5 mL dose per 0.5 m bush height. Ensure spray contacts all foliage.
	Hoary Cress (*Cardaria draba*)	1.2 L	400 mL	60 mL	NSW, ACT, Vic only	For maximum long term reduction apply from late July to September when plants are in late rosette to flowering stage. Plants should be actively growing and not under stress of 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. Refer to WIPER EQUIPMENT section under General Instructions for application.
	Johnson Grass (*Sorghum halepense*), Kangaroo Grass (*Themeda australis*), Kikuyu Grass (*Pennisetum clandestinum*)	4.8 L	800 mL	120 mL	All States	Apply to actively growing plants when most have reached the early head stage. For application by wiper equipment on Johnson Grass, off-type and volunteer sorghum refer to WIPER EQUIPMENT.
	Lantana (*Lantana camara*)	-	800 mL	120 mL	Qld, NSW, ACT only	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 brownout). Pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. **LOW VOLUME APPLICATION** (e.g. Splatter Gun and Gas Gun): Use 1:9 (10%) mixture of product:water. Apply 2 x 2 mL dose per 0.5 m bush height. Ensure spray contacts all foliage. **SPRINKLER SPRAYER:** Apply 6 mL of a 10% solution to every square metre of treated area. Use of CDA equipment is not recommended.
	Mistflower (*Eupatorium riparium*)	-	400 mL	60 mL		Apply to actively growing plants with full foliage. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to restrict seedling re-establishment. **SPRINKLER SPRAYER:** Apply 3 mL of a 10% solution to every square metre of treated area.
	Nutgrass (*Cyperus rotundus*) Does not refer to other *Cyperus* spp. which may be locally known as nutgrass	4.8 L	800 mL	120 mL	All States	Apply to growing plants in late Summer, i.e. February to mid April when at least 20-25% have reached the head stage. Apply in split application 6-8 weeks apart.
	Paragrass (*Brachiara mutica*)	7.2 L	1 L	160 mL		Apply to actively growing plants when most have reached the early head stage.
	Paspalum (*Paspalum dilitatum*)	4.8 L	800 mL	120 mL		
	Phalaris (*Phalaris aquatica*)	2.4-4.8 L	400-800 mL	60-120 mL	NSW, ACT, Vic, SA only	Apply to actively growing plants during Winter-Spring. Use the lower rate where only knockdown is required e.g. prior to burning of firebreaks. Burning can usually start 14-21 days after spraying. For long term control increase to the higher rate.

SITUATION	WEEDS	APPLICATION RATES			STATE	CRITICAL COMMENTS
		Boom-spray per Ha	Handgun per 100 L Water	Knap-sack per 15 L		
WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS AND NON-AGRICULTURAL AREAS. (Spot directed or wiper application is required for selectivity in established pastures and forests) – *Continued*	Phragmites, Common Reed *(Phragmites australis)*	7.2 L	1 L	160 mL	All States	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 refer to WIPER EQUIPMENT under General Instructions.
	Plaintain (*Plantago* spp.)	2.4 L	1 L	80 mL		
	Prairie Grass (*Bromus unioloides*), Qld Blue Grass (*Dichanthium sericeum*), Red-leg Grass (*Bothriochloa ambigua*), Rhodes Grass (*Chloris gayana*)	4.8 L	800 mL	120 mL		Apply to actively growing plants when most have reached the early head stage.
	Rope Twitch (*Agropyron repens*)	4.8 L	800 mL	120 mL	Vic, Tas only	Apply in late Summer-Autumn to actively growing plants with foliage at least 20 cm high. To ensure maximum shoot emergence the area should NOT be cultivated in the period from the preceding winter until the time of spraying.
	Rushes (*Juncus* spp.)	-	-	-	All States	Apply by wiper equipment to actively growing plants. 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 Umbrellla 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.
	Sedge Tall, Umbrella (*Carex* spp. and *Cyperus* spp.)	-	-	-	NSW, ACT, Vic, Tas only	
		1.6-3.2 L	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.
	Silverleaf Nightshade (*Solanum elaegnifolium*)	-	1.6 L	240 mL	NSW, ACT, only	Use ONLY under good soil moisture conditions. Apply to actively growing plants at the late flowering to berry stage. Repeat spraying will be necessary to restrict growth and seedling re-establishment.
	Sorrel (*Rumex acetosella*)	4.8 L	800 mL	120 mL	All States	Apply to actively growing plants when most have reached the early bud stage.
	Soursob (*Oxalis pre-caprae*)	1.2 L	400 mL	60 mL	NSW, ACT, Vic, Tas, SA, WA only	For maximum long term reduction apply from late July to early September but before natural plant yellowing (senescence) occurs. Soursob should be actively growing and not under stress of drought or waterlogging. 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 (e.g. direct drilling) situations application in 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 (*Hypericum perforatum*)	2.4 L	400 mL	60 mL	All States	Apply to actively growing plants in the flowering to post-flowering, procumbent stem stage (generally November-May). Re-treatment or oversowing with improved pasture species may be necessary to restrict seedling re-establishment.
	Sweet Briar *(Rosa rubiginosa)*	-	1.2-1.6 L	180-200 mL	NSW, ACT, Vic, Tas, SA, WA only	Apply to actively growing plants from late flowering to leaf fall. Spray to wet all foliage. Use the higher rate on bushes over 1.5 m high. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. LOW VOLUME APPLICATION (e.g. Splatter Gun and Gas Gun): Use 1:9 (10%) mixture of product:water. Apply 2 x 5 mL dose per 0.5 m bush height. Ensure spray contacts all foliage.
	Thistle, Artichoke (*Cynara cardunculus*)	2.4 L	400 mL	60 mL	Vic, SA only	Apply at the rosette-early head stage.
	Thistle, Californian (*Cirsium arvense*)	4.8 L	800 mL	120 mL	Vic, Tas only	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.

SITUATION	WEEDS	APPLICATION RATES			STATE	CRITICAL COMMENTS
		Boom-spray per Ha	Handgun per 100 L Water	Knap-sack per 15 L		
WOODY AND PERENNIAL WEEDS IN PASTURES, FORESTS AND NON-AGRICULTURAL AREAS. (Spot directed or wiper application is required for selectivity in established pastures and forests) – *Continued*	Water Hyacinth	4.8-7.2 L	800 mL -1 L	120-160 mL	All States	Apply when plants are actively growing and at or beyond the early bloom stage of growth. 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.
	Water Lettuce	-	800 mL -1 L	120-160 mL		Best results are obtained from mid-Summer through to Winter. Use the higher rate on dense infestations. Control of Water Lettuce 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.
	Waterlily, Yellow	4.8 L	800 mL	120mL		Apply when there is a maximum emergence of floating leaves. Allow 2-3 weeks for symptoms to develop, then re-treat any unaffected plants. Use low volume sprayer. Control of Yellow Waterlilly 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 (*Paspalum distichum*, *Paspalum paspalodes*)	7.2 L	1 L	160mL		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 *(Holcus lanatus)*	2.4 L	560 mL	80mL		Apply to actively growing plants at the early head stage.
TREE AND VINE CROPS Avocado, Banana, Blueberries, Citrus Fruits, Custard Apples, duboisa, Figs (dessert), Guava, Kiwifruit, Litchi, Mango, Monstera Fruit, Nuts (including Almond, Pecan, Macadamia, Pistachio and Walnut), Olives, Pawpaw, Persimmons, Pome Fruit, Raspberries, Stone Fruit, Tea, Vineyards	Amaranth, Barley Grass, Brome Grass, Barnyard Grass, Caltrop, Canary Grass, Capeweed, Chickweed, Deadnettle, Double Gee, Liverseed Grass, Mintweed, Paterson's Curse, Pigweed, Ryegrass, Silvergrass, Spear Thistle, Thornapple, Spiny Burrgrass, Wild Mustard, Wild Oats, Wild Turnip, Winter Grass, Variegated Thistle	1.6-2.4 L	400-600 mL	60-80 mL		DO NOT allow spray to drift on to crop. This product can be used as a tank mixture with simazine SC formulations for the residual control of annual weeds. This mixture should not be used to control perennial weeds. Apply as a directed or shielded spray or using wiper equipment. DO NOT allow wiper surface to contact any part of the tree, vine or palm. DO NOT apply as a spray near trees or vines less than 3 years old. **CITRUS FRUIT, NUTS AND OLIVES, POME FRUIT AND VINEYARDS** DO NOT allow spray drift to contact green bark or stems, laterals, suckers, fresh wounds, foliage or fruit. **TEA** Apply a maximum of 3.2 L/ha by shielded boom or directed off-centre nozzle or 0.4 L/100 L by directed hand-gun or knapsack to avoid application to the crop. **ALL OTHER CROPS** DO NOT allow spray or spray drift to contact any part of the plant including the trunk. **CAUTION** Where split bark on kiwifruit and green stems on pawpaw occur, extreme care is required. Annual weeds may be sprayed anytime they are actively growing. Use the lower rate on weeds up to 15 cm tall.
	Couch	7.2 L	1.0 L	160 mL		

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

WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.

GENERAL INSTRUCTIONS

This product is a non-selective herbicide. It is absorbed by plant foliage and green stems and is translocated through the plant from point of contact into the root system. The effects of this product may not be apparent for 3 to 7 days (annual weeds) or 2-3 weeks (perennial weeds) or longer under cool, cloudy conditions. This product will control emerged weeds only, and provides no residual control. Use of clean water is essential as glyphosate is deactivated by clay particles.

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. WIPE-OUT 450 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 WIPE-OUT 450.

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

WIPE-OUT® 450 is a member of the Glycine group of herbicides. WIPE-OUT 450 has the EPSP synthase inhibitor mode of action. For weed resistance management WIPE-OUT 450 is a Group M Herbicide. Some naturally occurring weed biotypes resistant to WIPE-OUT 450 and other Group M 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. The resistant weeds will not be controlled by WIPE-OUT 450 or other Group M herbicides.

GROUP **M** HERBICIDE

Since the occurrence of resistant weeds is difficult to detect prior to use, Adama Australia Pty. Ltd. accept no liability for any losses that may result from the failure of WIPE-OUT 450 to control resistant weeds. However, resistance should not be assumed without first viewing the method of application, the coverage and the timing of application.

CROP ESTABLISHMENT

WIPE-OUT 450 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 retarded crop emergence.

MIXING PROCEDURES

WIPE-OUT 450 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, aluminum, 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 WIPE-OUT 450. 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, pump, lines and nozzles should be thoroughly rinsed with clean water following application to prevent corrosion.

SURFACTANT ADDITION

The addition of a non-ionic surfactant (Wetspray® 1000, Wetspray® 600) at label rate is recommended with this product in all situations where the ratio of this product vol/ha is 2% or less of the total spray volume.

TANK MIXTURES

Compatibility

WIPE-OUT 450 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 Mixes

1. Fill the spray tank 1/3 to 1/2 full with clean water and start agitation.
2. Where crystalline ammonium sulfate is recommended, wash 2% w/v (2 kg/100 L spray solution) through a top mesh screen into the tank and mix thoroughly.
3. Add recommended herbicide/insecticide/additive to the spray tank and mix thoroughly.
4. Add WIPE-OUT 450 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

Tank mix with Tackle® in fallow or pre-sowing, to provide knockdown and residual control. Tank mix with 2,4 D Ester for improved control of certain broad leaf weeds. Tank mix with Cutlass® for improved control of Sorrel, Subclover, Medics and White Clover. WIPE-OUT 450 may also be mixed with Farmozine®† Flowable or WG (DO NOT apply the tank mix for control of Barnyard Grass or Liverseed Grass), Simazine† Flowable or WG, Express*, Garlon* 600, Duet® 250 EC, Pendimethex®, Lynx® WG, Lonestar® 750 WG, Victory®, LVE MCPA and Striker*.

† Ammonium sulphate may improve the performance of tank mixtures of Wipe-Out 450 and atrazine or simazine. See directions below.

Striker

The addition of Striker at 75 mL/ha to recommended rates of WIPE-OUT 450 prior to planting wheat or barley will improve knockdown and increase the speed at which treated weds develop visible symptoms of phytotoxicity.

Tank Mixtures – Additives

Ammonium sulphate (crystalline or liquid, 500 g/L)

Rate: 2 kg or 2L per 100 litres spray solution.

The addition of ammonium sulphate to WIPE-OUT 450, when used to control annual weeds, MAY improve the performance of WIPE-OUT 450 under adverse environmental conditions such as cool cloudy weather. Ammonium sulphate may also improve the performance of tank mixes of WIPE-OUT 450 and atrazine or simazine. Use only crystalline or liquid (500 g/L) ammonium sulphate, NOT prilled or granular forms. To test quality of crystalline forms, dissolve 2 tablespoons in 2 litres of water. Swirl gently for 2 minutes. If undissolved particles remain, it is advisable to predissolve prior to adding to spray tank through a screen. Ammonium sulphate may be corrosive to metal parts of the sprayer. Thoroughly flush tanks, pumps and nozzles with water after use.

WETTER TX SURFACTANT

Rate: 200 mL/100 L 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.

Tank Mixtures – Insecticides

WIPE-OUT 450 is compatible with the following insecticides; Dimethoate, Imidan*, Le-Mat*, Strike-Out® and Fenitrothion® 1000.

APPLICATION

WIPE-OUT 450 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 includig trees. Clean all equipment after use by thoroughly washing with water.

A. Boom Equipment: A spray volume of 25-100 L/ha is recommended. Ensure a double overlap of nozzle patterns at the top of the weed canopy.

Note: Fan nozzle equipment should be used, at pressures in the range of 240-280 kPa.

B. Aerial Equipment: This product may be aerially applied 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 WIPE-OUT 450 specified in this label up to a maximum limit of 3.2 L/ha. For Micronair and boom equipment, apply in a minimum spray volume of at least 20 L/ha. Droplets with an average size (or VMD) of 250-350 micron diameter are recommended. Swath width should be 15-17 m. Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove herbicide residues.

Application on hilly terrain

As spraying height may vary, to maximise target contact, increase water volume to 30-80 L/ha, and increase droplet size to at least 300 micron VMD.

Application procedure in hot conditions

It is recommended that when the temperature reaches 24°C to 26°C, increase water volume to at least 30-35 L/ha and increase droplet size to at least 300 micron VMD. Aerial application is not recommended at temperatures above 32°C.

WIPER EQUIPMENT

Wiper equipment (ropewick applicators) may be used to apply this product on to weeds growing in oilseed crops, sugar cane, 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 litre of this product with 2 litres clean water to prepare 33 % solution. This product may be used according to the above directions for suppression or control of many annual and perennial weeds. See WEEDS CONTROLLED tables for specific use recommendations.

WASHING AND CLEANING OF EQUIPMENT

Take careful precautions with regard to the washing of all spray equipment after each day of spraying. Using clean water, wash spray tank, nozzles, pumps, etc. Aircraft should be thoroughly washed, especially landing gear, after each day of spraying. Spray tanks, pumps, lines and nozzles should be thoroughly rinsed with clean water following application to prevent corrosion.

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.

PROTECTION OF CROPS, 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 use when breeze is blowing toward nearby desirable plants. DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

Equipment settings which produce fine droplets (150 microns or less), winds over 8 km/h, inversion conditions, still air and hot dry days all contribute to drift.

STORAGE AND DISPOSAL

20 L, 200 L: Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling return clean containers to recycler or point of supply. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If not available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

Envirodrum Micro Matic Valve (110 L)

Store the original sealed Envirodrum in a cool well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the Envirodrum with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the Envirodrum to the point of purchase. The Envirodrum remains the property of Adama Australia Pty. Ltd.

1000 L/BULK

Store in the closed, original container in a cool, well-ventilated areas. DO NOT store for prolonged periods in direct sunlight. Storage must be secure so that contents cannot be tampered with. All locks and/or seals must be in order. If locks or seals are broken prior to initial use then the integrity of this product cannot be assured. If this occurs Adama Australia Pty. Ltd. should be advised immediately. This minibulk/bulk container is reusable and remains the property of Adama Australia Pty. Ltd. DO NOT rinse empty container. Empty contents fully into application equipment. Close all valves and return to the point of supply for refill or storage. No other liquid, solid or pesticide product should be put into it. When empty return to Adama Australia Pty. Ltd. for cleaning, relabelling and refilling.

SAFETY DIRECTIONS

Product will irritate eyes and skin. Avoid contact with eyes and skin. When preparing product for use wear elbow-length PVC gloves and face shield or goggles. When using controlled droplet applicator wear protective waterproof clothing and impervious footwear. 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, face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126.

MSDS

Additional information is listed in the material safety data sheet (MSDS). A material safety data sheet for WIPE-OUT 450 is available from Adama on request. Call Customer Service on (02) 9431 7800.

CONDITIONS OF SALE: The use of WIPE-OUT® 450 Non-Residual Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia Pty. Ltd. regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Adama Australia Pty. Ltd. accepts no responsibility for any consequence whatsoever resulting from the use of this product.

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Batch No.

Date of Manufacture

ADAMA