CAUTION

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

ALLOUT® 450 HERBICIDE

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



GROUP

9

HERBICIDE

A non-selective water soluble herbicide for control of a wide range of annual and perennial weeds in a wide variety of situations as per the Directions For Use table.

IMPORTANT: READ THE ATTACHED LEAFLET/BOOKLET BEFORE USE.

CONTENTS: 20L
UPL Australia Pty Ltd
Level 3, 70 Hindmarsh Square,

Adelaide, SA, 5000 Tel: (08) 8112 0900 Fax: (08) 8112 0999





06/22/F

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STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area, Do not store for prolonged periods in direct sunlight.

Triple-rinse containers before disposal, Add rinsings to spray tank, Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately.

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

SAFFTY DIRECTIONS

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

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre, Phone Australia 13 11 26. New Zealand 0800 764 766.

SAFFTY DATA SHFFT

Additional information is listed in the Safety Data Sheet available from the supplier.

CONDITIONS OF SALE

UPL Australia Ptv Ltd accepts responsibility for the consistent quality of the product; however since the use and application of the product is beyond control, the company accepts no responsibility whatsoever for any loss, damage or other result following the use of the product whether used in accordance with directions or not; other than those mandatorily imposed by statutes, the liability is limited to the replacement of the goods and is conditional upon a claim made in writing and, where necessary, a sufficient part of the goods being returned for proper examination by the company within thirty days of sale.

No additional statements are required by Globally Harmonised System for classification and labelling of chemicals (GHS) and Safe Work Australia.

In an Emergency Dial 000 Police or Fire Brigade

24 Hour Emergency Response Service Australia 1800 033 111 International +61 3 9663 2130

IJPL

BATCH NO

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APVMA Approval No: 50124/135764 ® Registered trademark of UPL Australia Pty Ltd 06/22/T

DIRECTIONS FOR USE

RESTRAINTS

DO NOT spray if rainfall is expected as rainfall within 6 hours of treatment may reduce the effectiveness of the product. Heavy rainfall within 2 hours of treatment may wash the product from the leaf surface and retreatment may be necessary.

DO NOT disturb treated weeds by grazing, cultivation, sowing, etc after treatment for 1 day for annual weeds, and 7 days for perennial weeds to ensure complete uptake of the herbicide.

DO NOT apply to weeds under stress from frost, cold, disease, waterlogging or lack of moisture. Plants must be actively growing to ensure optimum uptake of the product.

DIRECTIONS FOR USE

Crop/Situation	Weeds	State	Rate L/ha	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 (Hordeum Jeporinum), Brome Grass (Bromus unioloides), Wild Oats (Aveno fatua), Volunteer Cereals Annual Phalaris (Phalaris conariensis), Annual Ryegrass (Lolium rigidum), Silvergrass (Vulpia spp.), Winter Grass (Poa annua)	NSW, VIC, Southern WA, SA, ACT only	400 to 800 mL pre tillering 800 mL to 1L post tillering 800 mL to 1L pre tillering 1 to 1.2 L post tillering	Use the higher rate when treating in cold/overcast conditions. When using late in the season, use the lower rate on young weeds and the higher rate or mature weeds ie. fully tillered grasses or broadleal weeds at budding or stem elongation. If weeds have been grazed heavily remove stock prior to spraying to ensure re-growth to 6 to 8 cm before treatment and use the higher rate. To allow for herbicide uptake cultivation or planting
	Calomba Daisy (Pentaia suffruticosa), Capeweed (Arctotheca calendula), Doublegee/Spiny Emex (Emex australis) Amsinckia (Amsinckia Spp.),		400 to 800 mL less than 8 cm diameter 800 mL to 1 L greater than 8 cm diameter 670 to 860 ml	may proceed from 1 day after application if annual weeds are sprayed and up to 7 days if certain perennial weeds are present. If cultivation or sowing does not occur within 21 days, new weed growth may require further treatment. Annual ryegrass, Silver grass and Perennial grasses: A water volume of 70 L/ha or more is
	Fumitory (Fumaria officinalis, F. muralis), Paterson's Curse (Echium plantagineum), Saffron Thistle (Corthamus lanatus), Scotch Thistle (Onopordum acanthium), Spear Thistle (Cirsium vulgare), Variegated Thistle (Silybum marianum),		less than 12 cm diameter/ height 860 mL to 1050 mL	recommended with low volume nozzles to improve control. Addition of a non-ionic surfactant according to label directions may improve control. Crop establishment: Sowing should not proceed until conditions allow the formation of satisfactory seedhed. See CROP ESTABLISHMENT for directions.
	Volunteer lupins (Lupinus angustifolius), Wild Turnip (Brassica tournefortii) Dock (seedling) (Rumex spp.)	-	greater than 12 cm diameter/ height 800 mL to	Tank mixtures: For improved control of Clovers, add Dicamba. Read and follow all label directions for the tank mix products.
	Dock (seeding) (vallex spp.)		1.2 L	Perennial weeds: For perennial Phalaris, Soursob, Skeleton Weed and Sorrel this product will provide knockdown, seasonal suppression and reduction in treated plant numbers.

DIRECTIONS FOR USE Continued

Crop/Situation	Weeds	State	Rate L/ha	Critical Comments
Southern Australia Prior to sowing a crop or pasture with full soil disturbance by cultivation or sowing with a tyned implement	Seasonal suppression of: Perennial Phalaris (Phalaris). Skeleton Weed (Chondrilla junceo) - fully emerged rosettes – NSW, ACT only, Soursob (Oxalis pes- caprae), Sub-clover (Trijolium subterraneum)	NSW, ACT, VIC, Southern WA, SA only	1.2 L	See previous page
	All the above weeds	TAS only	1.2 to 2.4 L	In Tasmania use 1.2 L on annual weeds and 2.4 L on perennial weeds. The product may also be tank mixed with Dicamba (1 L/ha of 200 g/L) to improve control of sorrel, dock and white clover. Observe Dicamba label directions and plant back periods. Addition of a suitable non-ionic wetting agent may improve control.
Southern Australia Before sowing a crop or pasture. For weed control	Barley Grass (Hordeum leporinum), Wild Oats (Avena fatua), Volunteer Cereals	NSW, VIC, Southern WA, SA,	800 mL to 1.2 L	Use the higher rate when treating in cold/overcast conditions. When using late in the season, use the lower rate on young weeds and the higher rate on mature weeds ie. fully tillered grasses or broadleaf weeds at budding or stem elongation.
prior to sowing a crop or pasture with minimal or no soil disturbance.	Brome Grass (Bromus unioloides), Canary Grass (Phalaris spp.), Capeweed (Arctotheca calendula), Variegated thistle (Silybum marianum), Winter grass (Poa annua)	ACT only	1.0 to 1.6 L	If weeds have been grazed heavily remove stock prior to spraying to ensure re-growth to 6 to 8 cm before treatment and use the higher rate. Annual ryegrass, Silver grass and Perennial grasses: A water volume of 70 L/ha or more is recommended with low volume nozzles to improve control. Addition of a non-ionic surfactant according to label directions may improve control.
	Annual Ryegrass (Lolium rigidum), Paterson's Curse (Echium plantagineum), Saffron Thistle (Carthamus lanatus), Scotch Thistle		1.2 to 1.6 L	Do not sow if heavy trash is present. Cultivation or planting may proceed from 1 day after application if annual weeds treated and up to 7 days if perennial weeds are present. Aerial application: May be applied by air, provided a good seedbed
	(Onopordum acanthium), Silvergrass (Vulpia spp.), Spear Thistle (Cirsium vulgare), Wild Mustard (Sisymbrium officinale), Wild Radish (Raphanus raphanistrum), Wild Turnip			has been established. Always use the higher rates. Tank mixtures : For improved control of dock, sorrel and sub-clover add Dicamba. Read and follow all label directions for the tank mix products. Addition of ammonium sulfate 2 kg/100 L may improve control when treating under adverse environmental conditions.
	(Brassica tournefortii)			Pasture or Crop Establishment: Do NOT sow into excessive trash. Trash may be removed by grazing after treatment. Grazing may commence one day after the treatment of annual weeds (small) and 7 days for perennial weeds. Delay grazing for 3 days when 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.

DIRECTIONS FOR USE Continued

Crop/Situation	Weeds	State	Rate L/ha	Critical Comments
Southern Australia Before sowing a crop or pasture. For weed control prior to sowing a crop or pasture with minimal or no soil disturbance.	Erodium (Erodium (cicutorium), Plantain (Chantago spp.), Perennial Phalaris (Phalaris aquatica), Sorrel (Rumex acetosella), Sub Clover (Trifolium subterraneum), Yorkshire Fog (Holcus lanatus)	NSW, ACT, VIC, Southern WA, SA only	1.5 to 2.0 L	Continued from previous page Aerial (or surface) Seeding: Delay seeding until trash is completely removed by grazing and/or plant decay. When establishing pasture, ensure application of fertiliser and insecticides and follow-up management is undertaken as required.
	Dock (<i>Rumex</i> spp.), Flatweed (<i>Hypochaeris</i> radicata)		2.0 L	
	All weeds listed above	TAS only	1.2 L to 2.4 L	In Tasmania use 1.2 L on annual weeds and 2.4 L on perennial weeds. The product may also be tank mixed with Dicamba (1 L/ha of 200 g/L) to improve control of sorrel, dock and white clover. Observe Dicamba label directions and plant back periods. Addition of a suitable non-ionic wetting agent may improve control.
Southern Australia For weed control before a fallow.	Barley Grass (Hordeum leporinum), Wild Oats (Avena fatua), Volunteer Cereals	NSW, ACT, VIC, Southern WA, SA	800 mL to 1.2 L	Use the lower rate on young weeds or when cultivation is to take place within 21 days. Use the higher rate where broadleaf weeds reach stem elongation/budding or where grasses are fully tillered.
	Annual Ryegrass (Lolium rigidum), Brome Grass (Bromus unioloides), Capeweed (Arctotheca colendula), Paterson's Curse (Echium plantagineum), Saffron Thistle (Corthamus Industy), Scotch Thistle (Onopordum acanthium), Silvergrass (Vulpia spp.), Spear Thistle (Cirsium vulgare), Wild Mustard (Sisymbrium officinale), Wild Radish (Raphanus rophanistrum), Wild Turnip (Brassica tournefortii)	only	1.2 to 1.6 L	If weeds have been grazed heavily remove stock prior to spraying to ensure re-growth to 6 to 8 cm before treatment and use the higher rate. Soursob – Treat at tuber exhaustion. Hoary Cress – Treat from late rosette to early flowering. Annual ryegrass, Silver grass and Perennial grasses: A water volume of 70 L/ha or more is recommended with low volume nozzles to improve control. Addition of a non-ionic surfactant according to label directions may improve control.
	Hoary Cress (Cardia draba) Soursob (Oxalis pes- caprae)		1.2 L	

Crop/Situation	Weeds	State	Rate L/ha	Critical Comments
Northern Australia For weed control prior to sowing a summer or winter	Annual Phalaris (<i>Phalaris</i>), Barley Grass (<i>Hordeum vulgare</i>), Wild Oats (<i>Avena fatua</i>), Volunteer Cereals	Northern NSW, QLD only	400 mL to 800 mL	Use the lower rate on young weeds or where cultivation is to take place within 21 days. Use the higher rate where broadleaf weeds reach stem elongation/budding or where
crop or in a fallow.	Barnyard grass (Echinochloa spp.) Liverseed grass (Urochloa spp.) Stinkgrass (Lovegrass) (Eragrostis curvula), Sweet Summer Grass, Volunteer sorghum (Sorghum halapense)		800 mL to 1.6 L	grasses are fully tillered. At more advanced stages certain broadleaf weeds may require the higher rate range or the addition of 2,4–D. In winter (cold) conditions, symptoms on Deadnettle may be slow to develop. If weeds
	Aust Bluebell (Qld only) (Wahlenbergia gracilis), Cudweed (Gnaphalium luteablum), Fumitory (Fumaria officinalis), Mexican Poppy (Argemone ochroleuca), Mintweed (Saviar reflexa), New Zealand Spinach (Tetragonaia tetragonaides), *Noogoora Burr (Kanthium pungens), Saffron Thistle (Carthamus lanatus), Spear Thistle (Cirisium vulgare), Spurge (Eupharbia Spp.), *Variegated Thistle (Silybum marianum), *Volunteer Sunflower, Yellowvine/Caltrop (Tribulus terrestris).		500 mL to 1.2 L	have been grazed heavily remove stock prior to spraying to ensure regrowth to 6 to 8 cm before treatment and use the higher rate. Liverseed Grass and Barnyard Grass may be very sensitive to moisture stress. Dense stands may require re-treatment. For aerial application see General Instructions. Do not apply by air if temperature is over 30°C. "Larger plants (~5cm) of Noogora Burr, Variegated Thistie and Volunteer Sunflower may require up to 1.6 L/ha to achieve control. Crop Establishment: Sowing should not proceed until conditions allow for formation
Northern Australia For weed control prior to sowing a summer or winter crop or in a fallow.	Boggabri Weed (Amaranthus macrocarpus), Caltrop (Tribulus terrestris), Indian Hedge Mustard (Ssymbrium orientale), Mintweed (Sahia reflexa), Summer Grass (Digitaria ciliaris)	Northern NSW, QLD only	400 to 800 mL up to 3 cm in height or diameter or up to 5 true leaves QR 500 mL to 1.2 L greater than 3 cm in height or diameter or 5 true leaves.	of a satisfactory seedbed. See Crop Establishment for directions. Sowthistle: previously grazed plants may be difficult to control without allowing full recovery.
	Annual Ground Cherry (Physalis angulata), Bladder Ketmia, Sow Thistle (Sonchus oleraceus), Turnip Weed (Rapistrum rugasum), Wild Lettuce (Lactuca saligna), Wild Turnip (Brassica tournefortii)		800 mL to 1.2 L Prior to stem elongation/ budding	

PASTURE RENOVATION AND TOPPING

Crop/Situation	Weeds	State	Rate L/ha	Critical Comments
Pasture with Poa Tussock present as a weed. For pasture renovation	Annual weeds (see previous table) and Poa Tussock (<i>Poa labillardieri</i>)	Qld, NSW, Vic, Tas, ACT only	2.4 to 3.2 L	Before spraying *graze heavily *Remove stock 14 days or more before treatment. *Apply after autumn break when plants are actively growing but before frosts begin (March to May). Increasing to the higher rate may give more effective reductions. Sowing of new pasture may begin 14 days after spraying. If is essential that correct follow-up pasture establishment and management occurs after treatment. Spot treatment will limit re-infestation. May be aerially applied.
Pasture with Bent Grass present as a weed. For control/suppression of Bent Grass before sowing a crop or pasture.	Annual weeds (see previous table) and Bent Grass (Agrostis tenuis).	Tas, Vic only	2.0 L	Apply late spring when seed heads have developed but before the onset of summer moisture stress. Remove stock prior to spraying to achieve good foliage cover. Ensure plants are actively growing. 10 to 21 days after spraying fully disturb soil with a tyned implement and then sow summer crop and / or re-seeded pasture or crop the following autumn.
Pasture Topping for the reduction of seed set of Annual Grasses. Capeweed and Calomba daisy.	Annual Ryegrass (Lolium rigidum), Calomba Daisy (Pentzia suffruticosa) Barley Grass (Hordeum leporinum), Brome Grass (Bromus unioloides), Capeweed (Arctotheca calendula), Silver Grass (Vulpia Spp.)	NSW, ACT, Vic, WA, SA Tas only	240 to 360 mL	Use the higher rate for heavy infestation or where annual ryegrass is present. Apply before "haying off: Annual Ryegrass and Capeweed: Apply at flowering. Other weeds: apply at head to milky dough stage. Stock should be removed before spraying to allow regrowth. Pasture legumes may be affected. Do not apply to medic/clover crops to be used for hay or seed. Apply a maximum of 50 L/ha water. Above this water volume add a non-ionic surfactant.
Pasture manipulation for the control/suppression of certain grasses before sowing Soybeans, forage	Carpet Grass (Axonopus spp), Kikuyu (Pennisetum clandestinum), Paspalum (Paspalum dilatatum).	WA, NSW, ACT, Vic only	1.1 to 4.8 L	Apply the lower rate for suppression only. The higher rate will provide control.
crops or Leucaena.	Carpet Grass, Paspalum Kikuyu (Pennisetum clondestinum) Black Spear Grass (Hederopogon contortus), Wire Grasses (Aristida spp.), Love Grasses (Erogrostis spp.), Red Natal Grass (Rhynchelytrum repens), Barbed Wire Grass (Cymbopogon refroctus)	Qld only	1.1 to 4.8 L 500 mL to 4.8 L 2.4 L	Leucaena - (QLD ONLY) Rows should be 4 m apart. Use 2 L/ha with single taper fan nozzle LFI-80 mounted at the rear of a single row planter giving a 1 m swath.

SUGAR CANE (RATOON CONTROL) FOR OLD and NSW ONLY

Situation	Variety	Rate L/ha	Critical comments
Sugar cane Ratoon control	Q63, Q87, Q90, Q102, Q117, Q120, Q129, Q130, H56-752, Pindar, Triton	2.4 to 3.2 L	Apply to actively growing ratoons 60 to 100 cm high. Use low rate for suppression or where cultivation will follow. Use higher
	Q86, Q96, Q113	3.2 to 4 L	rate for control. Apply with properly calibrated boom spray at
	Cassius, Q115, Q122, Q94.	4 to 4.8 L	correct height to allow overlap of spray pattern at top of crop
	NCO310, Q107	4.8 to 7.2 L	canopy. DO NOT apply if plants are under stress.

RICE DIRECT DRILLING FOR NSW ONLY

Situation	Weeds Controlled	Rate L/ha	Critical Comments
			If plants are drought stressed, a pre-watering must be applied. If the site has been grazed allow plants to regrow to 6 to 8 cm before
	(Hordeum leporinum), Burr Medic (Medicago spp.), Sub Clover (Trifolium subterraneum), Winter Grass (Poa annua).		treatment. For the control of Annual Ryegrass use the higher rate and add a suitable non-ionic wetting agent at the recommended rate. Crop Sowing: Sow 1 to 14 days after treatment. Residual control will
			only be achieved by adding another suitable herbicide.

SORGHUM CONTROL

Crop/Situation	Weeds	State	Rate L/ha	Critical Comments
Sorghum control before harvest	Grain Sorghum (Sorghum bicolor)	Old, NSW, ACT only	1.2 to 1.6 L	DO NOT apply to varieties intended for seed production or varieties prone to lodging. DO NOT apply to crop under stress from factors such as waterlogging, frost, disease, low moisture etc. Apply when grain moisture is less than 25%. The product can be applied when some browning has occurred. Use the lower rate for control of the crop, late tillers and ratoon regrowth. Use the higher rate for better suppression of ratoon regrowth. Treatment may increase potential for crop lodging especially if the crop has been stressed by low moisture. In this situation harvest as soon as possible after sufficient dry brown to prevent further lodging. CAUTION: Sorahum may be naturally toxic to stock.
Sorghum control after harvest	Sorghum stubble (grain sorghum) (Sorghum bicolor)	Qld, NSW, ACT only	800 mL to 1.2 L for new regrowth from slashed stubble. 1.2 to 1.6 L for standing green stubble. 800 mL to 1.2 L for fresh spring regrowth.	DO NOT apply to crop under stress from factors such as waterlogging, frost, disease, low moisture etc. For slashed stubble and spring regrowth apply when regrowth is at least 20 cm high. Standing Stubble: apply only if sufficient green leaf is present. Allow regrowth of at least 20 cm if grazing has occurred. Use the lower rate for knockdown and regrowth suppression where cultivation is to follow. Use the higher rate for better control of regrowth. It is important to note that variable results can occur if the crop has been under stress or grown under marginal conditions. The varieties Ruby, Trump, Nugget 2, Goldrush 2 and Prize are particularly susceptible if growing conditions are not ideal. CAUTION: Sorghum may be naturally toxic to stock.

ANNUAL WEEDS - FOR ALL STATES

Weeds Controlled	Rate	Critical Comments
Amaranth (Amaranthus spp.), Barley Grass (Hordeum leporinum), Barnyard Grass (Echinochloa	BOOM	Apply only to plants which are actively
crus-galli), Brome Grass (Bromus spp.), Caltrop (Tribulus terrestris), Canary Grass (Phalaris	1.6 to	growing and not suffering stress. Use the
spp.), Capeweed (Arctotheca calendula), Cereals -volunteer (barley, wheat, oats, sorghum),	2.4 L/ha	lower rate for weeds up to 15 cm and the
Chickweed (Stellaria media), Cobblers Peg (Bidens pilosa), Fumitory (Fumaria officinalis,		higher rate for weeds over 15 cm. The
F. muralis), Ground Cherry (Physalis angulatis), Lesser Swinecress (Coronopus didymus),	HANDGUN	effects of the product may take 3 to 7 days
Liverseed Grass (Urochloa panicoides), Mintweed (Salvia reflexa), Paradoxa Grass (Phalaris	400 to	to appear under normal conditions and up to
paradoxa), Paterson's Curse/Salvation Jane (Echium plantagineum), Pigweed (Portulaca	560 mL	20 to 30 days in cool conditions. NO residual
oleracea), Potato Weed (Galinsoga parviflora), Ryegrass - annual (Lolium rigidum), Saffron		control will be provided by this product.
Thistle (Carthamus lanatus), Silver Grass (Vulpia spp.), Sow Thistle (Sonchus oleraceus),		Germinations after initial treatment may have
Spear Thistle (Cirsium vulgare), Spiny Burr Grass (Cenchrus spp.), Spurge (Euphorbia spp.),	KNAPSACK	to be re-sprayed.
Sub Clover (Trifolium subterraneum), Wild Mustard (Sisymbrium officinale), Wild Oats (Avena		
fatua), Wild Turnip (Brassica tournefortii), Winter Grass (Poa annua), Variegated Thistle	per 15 L	For residual control the product should be
(Silybum marianum)		tank mixed with a suitable residual herbicide.

PERENNIAL WEEDS

Weeds Controlled	State	Boom L/ha	Handgun Vol/100 L	Knap Sack mL/15 L	Critical Comments
Bamboo (<i>Bambusa</i> spp.)	All States	-	80 mL	120 mL	Apply to actively growing foliage and/or regrowth, which is between 1 and 2 m tall. Cut Stump: dilute the product 1:6 ie. 1 part Allout 450 to 6 parts water, cut stems back to 20 cm high, pour mixture down hollow stem or paint the cut.
Bent grass (Agrostis capillaris)	Vic, Tas only	2 L	400 mL	60 mL	Apply to plants, which have some seed-head development late in the spring. Plants must be actively growing. It is necessary to follow up spraying with full soil disturbance within 21 days and then plant to a summer crop and/or re-seeded pasture or crop in autumn.
Blady grass (Imperata cylindrica)	NSW, ACT, Qld only	7.2 L	1 L	160 mL	Apply to actively growing plants when most plants have reached the head stage.
Bracken (Pteridium esculentum)	All States	-	1.2 L	180 mL	For best control, wiper application is recommended. Bracken should be slashed in the previous winter/ spring so that application is made to new growth. Apply to actively growing fully unfurled fronds in autumn (March-May) before the onset of frosts. Symptoms may be very slow to appear. Follow-up treatment is recommended, as control will not be achieved after one treatment.
Carpet grass (Axonopus spp.)	All States	2.4 L	400 mL	60 mL	Apply to actively growing plants at early head stage.
Cocksfoot (Dactylis glomerata)	All States	2.4 L	560 mL	80 mL	Apply to actively growing plants at early head stage.
Couch (Cynodon dactylon)	All States	7.2 L	1L	160 mL	Apply to actively growing plants when most plants are at the early head stage. For best results in WA and SA apply in October to November.
Flat Weed/ Cat's Ear (Hypochaeris radicata)	All States	2.4 L	560 mL	80 mL	Apply at early flowering stage to fully developed rosettes.

PERENNIAL WEEDS Continued

Weeds Controlled	State	Boom L/ha	Handgun Vol/100 L	Knap Sack mL/15 L	Critical Comments
Guinea Grass (Panicum maximum)	All States	7.2 L	1 L	160 mL	Apply to actively growing plants at early head stage.
Hoary Cress (Cardaria draba)	NSW, ACT, Tas, Vic only	1.2 L	400 mL	60 mL	Apply late July to early September to actively growing plants at the late rosette to flowering stage. Ensure plants are not stressed at time of spraying. Where Stem's are long enough, wiper equipment may be used. TAS: Add a non-ionic surfactant at the recommended rate.
Johnson Grass (Sorghum halepense) Kangaroo Grass (Themeda australis) Kikuyu (Pennisetum clandestinum)	All States	4.8 L	800 mL	120 mL	Apply to actively growing plants at early head stage. May be applied by Wiper equipment to Johnson Grass.
Lovegrass - African (Eragrostis curvula)	Vic, NSW, ACT, WA only	4.8 L	800 mL	120 mL	Apply to actively growing plants. To restrict seedling re- establishment pasture improvement is recommended.
Nutgrass (Cyperus rotundus)	All States	4.8 L	800 mL	120 mL	Non cultivated situations: Apply to actively growing plants in February to April.
		2.4 L + 2.4 L	560 mL + 560 mL	80 mL + 80 mL	Cultivated situations: Make first application when at least 20% of plants have reached early head stage (about Feb). Make the second application when most plants have re-emerged (about 6 to 8 weeks after first application). Follow up treatments may be necessary as further plants emerge
Pampas Grass (Cortaderia spp.)	All States	-	800 mL to 1 L	120 mL or 160 mL	Apply in spring, summer or autumn to actively growing plants. Ensure complete coverage of the foliage. Best results are obtained if plants are sprayed at flowering. Use the lower rate for plants under 1 m tall and the higher rate for larger plants. Plants may be cut prior to application but re growth must be at least 1 m prior to spraying.

Weeds Controlled	State	Boom L/ha	Handgun Vol/100 L	Knap Sack mL/15 L	Critical Comments
Paragrass (Brachiaria mutica)	All States	7.2 L	1 L	160 mL	Apply to actively growing plants at early head stage.
Paspalum (Paspalum dilatatum)	All States	4.8 L	800 mL	120 mL	Apply to actively growing plants at early head stage.
Phalaris (Phalaris aquatica)	SA, Vic, NSW, ACT only	2.4 or 4.8 L	400 mL or 800 mL	60 mL or 120 mL	Apply in winter-spring to actively growing plants. Use the lower rate where only knockdown is required such as prior to burning for a firebreak. Burning should not take place for 2 to 3 weeks after spraying. The higher rate should be used for longer-term control.
Plantains (<i>Plantago</i> spp.)	All States	2.4 L	560 mL	80 mL	Apply to actively growing plants at the early head stage. Symptoms may be slow to appear.
Prairie Grass (Bromus unioloides), Qld Blue Grass (Dichanthium sericeum), Red-leg Grass (Bothriochloa amibigual), Rhodes Grass (Chloris qayana)	All States	4.8 L	800 mL	120 mL	Apply to actively growing plants at the early head stage.
Rope Twitch (Agropyron repens)	Tas, Vic only	4.8 L	800 mL	120 mL	Apply in late summer to 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.
Sorrel	All States	4.8 L	800 mL	120 mL	Apply to actively growing plants when the majority of plants are at the early bud stage.
Soursob (Oxalis pes-caprae)	Vic, NSW, ACT, Tas, WA, SA only	1.2 L	400 mL	60 mL	Apply to actively growing plants late July to early September prior to plant senescence (yellowing). Ensure plants are not stressed at time of application. If plants have been grazed or frosted allow regrowth before treatment.
St. John's Wort (Hypericum perforatum)	All States	2.4 L	400 mL	60 mL	Apply to actively growing plants at flowering to post flowering, procumbent stem stage (about Nov to May). Pasture improvement or re-treatment may be necessary to prevent seedling re-establishment.
Thistle - Artichoke (Cynara cardunculus)	SA, Vic only	2.4 L	400 mL	60 mL	Apply when plants are at the rosette to early head stage.
Thistle - Californian (Cirsium arvense)	Vic, Tas only	4.8 L	400 mL	60 mL	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.
Yorkshire Fog (Holcus lanatus)	All States	2.4 L	560 mL	80 mL	Apply to actively growing plants at the early head stage.

Weeds	State	Handgun vol/ha	Knapsack vol/15 L	Critical Comments
Bitou Brush / Boneseed (Chrysanthemoides monilifera)	NSW, ACT, Qld, Vic, Tas only	400 mL or 800 mL	60 or 120 mL	Apply to actively growing plants. Do not treat plants which are stressed, particularly drought stressed. Spray to wet all foliage. Best results are achieved when treated during the winter at peak flowering time. Use the higher rate on larger bushes. Follow-up treatment may be required to prevent the establishment of germinating weeds.
Blackberry (Rubus fruticosus)	All States	800 mL or 1 L	120 or 160 mL	Apply from January to May (flowering to leaf fall). Spray plants which are not under stress to thoroughly wet foliage. Use the higher rate for dense, old stands over 2 m high. Further treatment may be needed to control seedlings and regrowth. Symptoms may be slow to appear and may not be apparent until next season. TAS ONLY: Do not spray bushes bearing mature fruit.
Boxthorn, African (Lycium ferocissium)	All States	560 mL or 800 mL	80 mL or 120 mL	Spray to wet all foliage. Use the lower rate for young bushes and the higher rate for bigger mature bushes. Do not spray if conditions are hot and dry. Regrowth and seedling gemination may have to be re-treated.
Crofton Weed (Eupatorium adenophorum)	NSW, ACT, Qld only	400 mL	60 mL	Apply to plants with full foliage which are actively growing. Spray to wet all foliage. Seedling germination may have to be retreated.
Groundsel Bush (Baccharis halimifolia)	NSW, ACT, Qld only	560 mL or 800 mL	80 mL or 120 mL	Apply to actively growing plants using the higher rate for plants over 2 m tall. Do not spray during summer drought stress conditions or in winter. Spray to wet all foliage. Seedling germination may have to be re-treated.
Hawthorn (<i>Crataegus</i> spp.)	NSW, ACT, Vic, SA, WA, Tas only	800 mL to 1 L	120 mL to 160 mL	Spray from flowering to leaf fall when plants are actively growing. Use the higher rate for plants over 2 m tall. Spray to thoroughly wet all foliage. Seedling regrowth may have to be retreated.
Lantana (Lantana camara)	NSW, ACT, Qld only	800 mL	120 mL	Apply to plants with full foliage, which are actively growing. Spray to thoroughly wet all foliage and individual plants. Seedling regrowth may have to be retreated.
Mistflower (Eupatorium riparium)	NSW, ACT, Qld only	400 mL	60 mL	Apply to plants with full foliage, which are actively growing. Spray to thoroughly wet all foliage. Seedling regrowth may have to be retreated.
Sifton Bush/ Chinese Scrub (Cassinia arcuata)	NSW, ACT, Qld only	800 mL or 1 L	120 or 160 mL	Apply to actively growing plants ensuring complete coverage. Seedling regrowth may have to be retreated. For high volume application use the higher rate when bushes are over 1 m. For Wiper application a double pass application is required. Best results are achieved if bushes are less than 1 m tall and are green at time of application.
Sweet Briar (Rosa rubiginosa)	NSW, ACT, SA, Vic, WA, Tas only	1.2 L or 1.6 L	180 mL or 240 mL	Apply from late flowering to leaf fall to actively growing plants. Spray to thoroughly wet all foliage. Use the higher rate for bushes over 1.5 m tall. Seedling regrowth may have to be retreated.

GENERAL USES FOR ALL STATES UNLESS SPECIFIED

Situation	Weeds controlled	Rate	Critical Comments
Agricultural Areas	See Weeds Controlled	See Weeds Controlled	For the control of weeds listed in "Weeds controlled" prior to sowing of any crop.
Dry drains and channels, Dry margins of dams, Lakes and streams situations	Table for Annual and Perennial	Tables	Do NOT apply to weeds growing in or over water. Do NOT spray across open bodies of water, and do NOT allow spray to enter the water. Do NOT allow water to return to dry channels and drains within 4 days of application.
Domestic areas (home Gardens) Commercial And Industrial Areas, Public Service Areas, Rights of Way	Weeds and Brush and Woody Weeds	8 mL per litre of water	Ensure weeds are actively growing at time of application. Complete and uniform coverage is necessary to ensure the best results. Symptoms may take 3 to 21 days to appear. NO residual control is provided.
Forestry Situations		See Weeds Controlled Tables	The product may be used: In site preparation before planting. Before establishment of nurseries. Amongst established trees by using selective wiper equipment directed or shielded spray. The product must NOT contact foliage or green bark of desirable trees. The wiper should not contact any part of the tree.
HORTICULTURAL CROPS Avocado, Bananas, Blueberries, Citrus fruits, Custard Apples, Dubosia, Figs (Dessert), Guava, Kiwifruit, Litchi, Mango, Monstera, Nuts (Almond, Pecan, Macadamia, Pistachio, Walnut), Olives, Paw Paw, Persimmon, Pome Fruit, Stone Fruit, Raspberries, Tea, Vineyards			The product can be used as a shielded or directed spray, or using wiper equipment. DO NOT apply near trees or vines less than 3 years old unless they are adequately protected from spray and spray drift. DO NOT allow spray or spray drift to contact bark, leaves, wounds, or any other plant parts of any crop as severe injury may occur. Tea: Apply a maximum of 3.2 L/ha by a shielded spray or a directed off centre nozzle or 0.4 L/100 L by directed handgun or knapsack to avoid injury to the crop.
Pasture			The product may be used by the following methods: 1. Spot application - To remove weeds by spot application within a pasture. This product is non-selective and may damage or kill any plant in the sprayed area. To prevent seedling re-establishment pasture improvement and/or retreatment may be necessary. 2. Boom application - This product may be used to suppress or kill existing pasture prior to reseeding or establishment of other crops. 3. Selective application - See Wiper equipment under General Instructions.
Peanuts, Cotton, Soybeans & Sugar Cane (USING SELECTIVE APPLICATION EQUIPMENT ONLY) OLD & NSW ONLY			WIPER EQUIPMENT Apply to the weeds growing between the rows or to weeds growing at least 15 cm above the crop. DO NOT allow the herbicide to contact the crop or to drip from the applicator as serious crop injury may occur. SHIELDED SPRAYERS (Cotton only) Apply to the weeds growing between the rows using a shielded sprayer. DO NOT apply unless the crop is at least 20 cm high.

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

WITHHOLDING PERIOD NOT REOUIRED WHEN USED AS DIRECTED

GENERAL INSTRUCTIONS

Mode of Action

Allout 450 Herbicide is a water-soluble liquid herbicide. The product is non-selective and will control a wide range of emerged annual and perennial weeds. It provides no residual activity and is inactivated once it comes in contact with the soil. The product is absorbed by Janta leaves and green stems and is then translocated throughout the plant to the root system. The product inhibits a plant enzyme causing a breakdown in the metabolic pathway leading to death of the plant. Visual effects of product efficacy are gradual wilting, yellowing leading to complete plant browning. For annual weeds, effects are usually apparent in 3 to 7 days and for perennial weeds up to 14 to 21 days. The time taken for these effects to appear will vary depending on the speed of translocation which will be dependent on climatic conditions such as temperature, moisture conditions etc. Best results are obtained if plants are sprayed when they are actively growing and not under any stress from such factors as disease, waterlogging, insect damage, drought stress etc. To ensure that the product is adequately absorbed by weeds it is recommended that spraying be delayed if rainfall is expected. Rain up to 6 hours after application may reduce the efficacy of the product and heavy rain within 2 hours may necessitate re-treatment. Plants which are covered in dust or which are well not not be retained.

Crop Establishment: Where the product is used to control weeds prior to the establishment of a new crop or pasture it is important that the crop or pasture not be sown until a suitable seed bed is present. Where a light cover of weeds has been sprayed, it may be possible to sow in one day. Where a large amount of dead weed matter or trash is present the seedbed needs to be adequately prepared before crop or pasture sowing.

MIXING AND APPLICATION

Allout 450 Herbicide may be applied by boom spray, air, knapsack, handgun or wiper application.

Boom Application: Spray volumes of 25 to 100 L water/ha recommended with a fan nozzle at pressures of 240 to 280 kPa. Boom height must be set to ensure double overlap of spray patterns at the top of the weed canopy.

Wiper Application: (e.g. ropewick, canvas, carpet or felt applicators) may be used to apply the product in the situations as per the directions for use table. Weeds should be at least 15 cm above the crop and the wiper equipment should be operated at least 10 cm above the crop. Best results are obtained with lower speeds of application (do not exceed 8 km per hour) and where two applications are made in opposite directions ie. double pass. Where herbicide does not contact foliage (due to different levels of foliage) results may not be satisfactory and re-treatment may be required. Do not store a mixed solution for more than 2 days. Rate: 800 mL of product to 2.2 litres of water.

Aerial Application: Apply a minimum spray volume of 20 L/ha for micronair and boom equipment. Droplet size should be 250 to 350 microns and the swath width 15-17 metres. Aerial application is only recommended in pasture or fallow situations before establishment of a new crop or pasture or in pre-harvest sorghum. On sloping ground, the spraying height may vary, so it is recommended that the spray volume be increased to 30 to 80 L/ha with a droplet size of at least 300 micron. Since the product is non-selective it is important to avoid spraying in conditions likely to cause drift. e.g. wind over 8 kph, temperature inversion, still air and hot dry days.

DO NOT use in intensive horticultural areas. Use recommended rates specified in this label to a maximum of 3.2 L/ha.

APPLICATION IN HOT CONDITIONS: When the temperature reaches 25°C increase the water volume to at least 30 L/ha and droplet size to a least 300 micron VMD to compensate for additional evaporation of sprayed droplets. DO NOT use by air in temperatures above 30°C.

Surfactant

The addition of surfactant may improve weed control where water rates are high or product rates are low. Suggested surfactant rates are 200 mL/100 Lof 1000 g/L non-ionic surfactant or 250 to 500 mL of 700 g/L surfactant. Do not add spraying oils, agricultural chemicals or any other material except as directed on the label

Mixing - When the product is to be mixed with water it is important that clean water be used. Dirty water or hard water containing calcium salts may reduce the product's effectiveness. The following procedure for mixing should be followed:

- 1. Ensure spray tank is clean and that previous chemicals used are washed from the tank.
- 2. Half fill the tank with clean water, add the required amount of Allout 450 Herbicide.
- 3. Add the rest of the water.
- Add surfactant last

RESISTANT WEEDS WARNING

GROUP 9 HERBICIDE

Allout 450 Herbicide is a member of the Glycine group of herbicides. Allout 450 Herbicide has the inhibitor of EPSP synthase mode of action. For weed resistance management Allout 450 Herbicide is a Group 9 herbicide. Some naturally-occurring weed biotypes resistant to Allout 450 Herbicide and other Group 9 herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Allout 450 Herbicide or other Group 9 herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, UPL Australia Pty Ltd accepts no liability for any losses that may result from the failure of Allour 450 Herbiride to control resistant weeds

COMPATIBILITY

The product may be mixed with a variety of products to enhance weed control to broaden the spectrum of weeds and to add residual control. Refer to the "Directions for Use" Section for detailed information on the tank mix situations.

Additives: Crystalline Ammonium sulfate assists in minimising antagonism when mixed with flowable Triazine herbicides. The only form of Ammonium sulfate to be used is the crystalline form (not prilled or granule forms). Test the quality by dissolving 2 tablespoons in 2 litres of water. Swirl gently for 2 minutes. Should undissolved particles still remain at the end of that time, pre- dissolve them prior to adding product to spray tank. Ensure solution is poured through a screen.

Herbicides: Atrazine - flowable or granular (see additives above - do not apply the tank mix for control of barnyard grass or liverseed grass), Dicamba, 2,4-D ester, Express*, chlorsulfuron, metsulfuron, Yield*, Stomp*, Logran*, LVE MCPA, Goal CT*.

Goal CT- The addition of Goal CT at 75 mL/ha to recommended rates of this product prior to planting Wheat or Barley will improve knockdown and increase the speed at which treated weeds develop visible symptoms of phytotoxicity. Add Flowright Compatibility agent to improve the compatibility in cold water, (Less than 15°C). See directions below.

Insecticides: Chlorpyrifos, Dimethoate, Fenitrothion, Gusathion*, Imidan*, Ie-Mat*, Lorsban*, Metasystox, Sumithion*, Perfekthion EC400*.

Flowright compatibility agent

Rate: 200 mL/100 L spray solution. When mixing with Goal CT*, add to improve the compatibility in cold water (less than 15°C) Flowright must be premixed with Goal CT before adding to the spray tank. Refer to Flowright label for full directions.

For tank mixing the following procedure should be undertaken:

- Half fill tank and start agitator.
- Add crystalline ammonium sulfate (if required) through mesh screen.
- Add companion product.
- Add Allout 450 Herbicide and rest of the water
- Add surfactant and maintain agitation while spraying.

Equipment Maintenance and Usage: Allout 450 Herbicide should ONLY be stored, mixed or applied in plastic or plastic lined, stainless steel, aluminium, copper, brass or fibreglass containers. The product and spray solutions react with galvanised steel and unlined steel tanks and containers to form hydrogen gas which form a highly combustible gas mixture. This gas could cause an explosion if ignited by an open flame. All application equipment including tanks, nozzles, hoses, aircraft and aircraft landing qear, should be thoroughly washed after use to prevent corrosion.

PROTECTION OF CROP. NATIVE AND OTHER NON-TARGET 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.

DO NOT allow spray to contact any part of desirable plants. DO NOT use prior to transplanting tomato seedlings.

PROTECTION OF LIVESTOCK

There is no withholding period for this product but removal of stock may be necessary to achieve efficacy. It is recommended that stock be removed from the area to be treated for 1 day after treatment of annual weeds and for 7 days after treatment of perennial weeds.

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.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate dams, streams, rivers or waterways with the chemical or used containers. DO NOT apply to weeds growing in or over water. DO NOT spray across open bodies of water. DO NOT allow spray to enter the water.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately.

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

SAFFTY DIRECTIONS

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

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766.

SAFFTY DATA SHFFT

Additional information is listed in the Safety Data Sheet available from the supplier.

CONDITIONS OF SALE

UPL Australia Pty Ltd accepts responsibility for the consistent quality of the product; however since the use and application of the product is beyond control, the company accepts no responsibility whatsoever for any loss, damage or other result following the use of the product whether used in accordance with directions or not; other than those mandatorily imposed by statutes, the liability is limited to the replacement of the goods and is conditional upon a claim made in writing and, where necessary, a sufficient part of the goods being returned for proper examination by the company within thirty days of sale.

No additional statements are required by Globally Harmonised System for classification and labelling of chemicals (GHS) and Safe Work Australia.

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