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



ACTIVE CONSTITUENT: 200 q/L GLUFOSINATE AMMONIUM



For non-residual control of broadleaf and grass weeds in various situations as specified in the Directions for Use Table.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USE

CONTENTS: 20 LITRES

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www.austcrop.com.au

BATCH NO:

DATE OF MANUFACTURE:

DIRECTIONS FOR USE:

Restraints: DO NOT apply by aircraft.

DO NOT apply when rain is expected within 6 hours.

DO NOT apply to weeds under stress due to, for example, very dry, very wet, frosty or diseased conditions. DO NOT apply under hot dry conditions (temperatures above 33°C with a relative humidity below 50%).

CROP/ SITUATION	WEEDS	STATE	RATE	WHP	CRITICAL COMMENTS
Blackberry, Boysenberry, Loganberry, Raspberry	Primocane and sucker control	NSW, ACT, Vic, Tas only	500 mL/100 L water	Nil	Apply as a directed spray to suckers and primocanes. Contact with flowers, developing fruit or desirable foliage will cause damage. Ensure complete coverage of primocanes/suckers by spraying to the point of run-off, preferably when they are less than 15 cm high. A non-ionic wetting agent (1000g/L) may be added at a rate of 25 mL/100 L or equivalent.
Avocado, Banana, Feijoa, Guava, Kiwifruit, Litchi, Mango, Pawpaw, Passionfruit, Pineapple, Rambutan plantations	See lists of weeds controlled in Tables 1 and 2.	Qld, NSW, ACT, Vic, SA, WA, NT only	1.0 to 5.0 L/ ha	Nil	Apply as directed or shielded spray. Refer to the label section Application Equipment for specific information on application methods. Controlled Droplet Application equipment must not be used for application in cherry orchards. Warnings: DO NOT allow spray or spray drift to contact desirable foliage or green (uncalloused) bark. To avoid potential crop damage, refer to the label sections on Application Equipment and PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS. ACP Glufosinate-Ammonium Herbicide may be used around trees/vines less than
Citrus orchards		All			two years old provided they are effectively shielded from spray and spray drift.
Olive plantations		States			The recommended rate of use is determined by the following criteria: WEED SPECIES
Pome and stone fruit orchards				21 days (H)	WEED STAGE OF GROWTH WEED DENSITY CLIMATIC CONDITIONS
Tree nut plantations				Nil	WEED SPECIES: Apply the appropriate rate to control the least susceptible weed present as per the lists of weeds controlled in the accompanying tables.
Vineyards					WEED STAGE OF GROWTH: Use the lower rate when weeds are young and succulent (grasses; pre-tillering; broadleaves; cotyledons to 4-leaf) or the population is very sparse. A median rate should be used for medium sized plants (grasses; tillering; broadleaves, 4 leaf to advances vegetative) and the high rate should be used when weeds are mature (grasses; nodding to flowering; broadleaves, budding to flowering). WEED DENSITY: Use the higher rates when the weed population is dense. Thorough coverage of weeds is essential for good control.
					CLIMATIC CONDITIONS: Best results are achieved when applied under warm humid conditions. Control will be reduced and/or slower under cold conditions and/or overcast conditions. Good results will be achieved under most other conditions, however poor results may occur under hot, dry conditions (temperatures above 33°C with a relative humidity below 50%). Weeds that have been hardened or stunted in growth due to stressed conditions should be treated at the maximum rate. COVERAGE: Complete coverage of weeds is essential for good control. Poor coverage may result in re-growth.
					PERENNIAL WEEDS: Apply when weeds are actively growing. Follow up treatments will be necessary to control re-growth of perennial weeds in most cases.

CROP/ SITUATION	WEEDS	STATE	RATE	WHP	CRITICAL COMMENTS
Strawberries, Cane berry fruits (inter-row) Tomatoes (inter-row)	See lists of weeds controlled in Tables 1 and 2	All States	1.0 to 5.0 L/ ha	Nil	Apply as a directed or shielded spray to the inter-row area. Take care not to allow spray or spray drift to contact the crop, including strawberry runners. Refer to GENERAL INSTRUCTIONS for warnings concerning plastic mulch and fumigated/sterilised soil. Determine the recommended rate of use by considering the criteria WEED SPECIES, WEED STAGE OF GROWTH, WEED DENSITY and CLIMATIC CONDITIONS, as described above.
Commercial & Industrial areas, rights-of-way			1.0 to 6.0 L/ ha		Determine the recommended rate of use by considering the criteria WEED SPECIES, WEED STAGE OF GROWTH, WEED DENSITY and CLIMATIC CONDITIONS as described above.
and other non- agricultural areas					Warnings: DO NOT allow spray or spray drift to contact desirable plants. To avoid potential crop damage, refer to the label sections on Application Equipment and PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS.
Line-marking on sports grounds	Turf grasses and other weeds	All States	250 to 500 mL / 100 L water		Refer to General Instructions. ACP Glufosinate-Ammonium Herbicide is a non-selective, non-residual herbicide with limited translocation potential. It is therefore ideally suited for line-marking on sports fields where precise weed control is required. Apply at 6-8 week intervals depending on growth of turf. Apply using single boom or hand wand.

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

WITHHOLDING PERIODS:

Harvest (H)

Avocado, banana, blackberry, boysenberry, citrus fruit, feijoa, grapes, guava, kiwifruit, litchi, loganberry, mango, olives, passionfruit, pawpaw, pineapple, Rambutan, raspberry, strawberries, tomatoes, tree nuts: NOT REQUIRED WHEN USED AS DIRECTED.

Pome and stone fruit: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION.

Grazing (G)

DO NOT GRAZE OR CUT TREATED AREAS FOR STOCK FOOD FOR 8 WEEKS AFTER APPLICATION.

TRADE ADVICE: EXPORT OF TREATED PRODUCE

Growers should note that suitable MRLs or import tolerances may not be established in all markets for product treated with ACP Glufosinate 200 Herbicide. If you are growing product for export, please check with Australis Crop Protection Pty Ltd for the latest information on MRLs and import tolerances BEFORE using the product.

Table 1: Recommendations for weed control (except when referred to Table 2).					
COMMON NAME	SCIENTIFIC NAME	APPLICATION RATE			
		Boom or directed sprayer L/ha	Handgun mL/100 L	Knapsack mL/15 L	
ANNUAL WEEDS					
Amaranthus spp.	Amaranthus spp.	2.0 to 5.0	500	75	
Apple of Peru	Nicandra physalodes	1.5 to 3.0	300	45	
Argentine Peppercress	Lepidium bonariense	2.0 to 3.0	300	45	
Awnless Barnyard Grass	Echinochloa colona	2.5 to 3.5	350	53	
Barley Grass	Hordeum leporium	2.0 to 3.0	300	45	
Barnyard Grass	Echinochloa crus-galli	2.0 to 5.0	500	75	
Billy Goat Weed	Ageratum conyzoides	2.0 to 5.0	500	75	
Bittercress	Cardamine hirsute	2.0 to 5.0	500	75	
Black Bindweed (Buckwheat) [refer note 2]	Fallopia convolvulus	1.8 to 5.0	500	75	
Bladder Ketmia	Hibiscus trionum	3.0 to 5.0	500	75	
Bordered Panic	Entolasia marginate	2.0 to 4.0	400	60	
Brome Grasses (refer Note 1)	Bromus spp.	2.0 to 3.0	300	45	
Calopo	Calopogonium mucunoides	2.0 to 5.0	500	75	
Caltrop Burr (refer also Table 2)	Tribulus terrestris	3.0 to 5.0	500	75	
Capeweed	Arctotheca calendula	1.5 to 5.0	500	75	
Clover (Subterranean)	Trifolium subterraneum	1.8 to 3.0	300	45	
Cobbler's Peg	Bidens pilosa	2.0 to 5.0	500	75	
Common Storksbill	Erodium cicutarium	1.5 to 4.0	400	60	
Crowsfoot Grass	Eleusine indica	3.0 to 5.0	500	75	
Deadnettle (refer to Table 2)	Lamium amplexicaule	2.0 to 5.0	500	75	
Dwarf Crumbweed	Chemopodium pumilo	3.0 to 5.0	500	75	
Fat Hen	Chenopodium album	3.0 to 5.0	500	75	
Fumitory	Fumaria officinalis	1.8 to 5.0	500	75	
Green Crumbweed	Chenopodium carinatum	2.0 to 5.0	500	75	
Lesser Canary Grass (refer also Table 2)	Phalaris minoe	3.0 to 5.0	500	75	
Liverseed G(refer also Table 2)	Urochloa panicoides	1.5 to 5.0	500	75	
Medics (annual)	Medicago spp.	1.0 to 5.0	500	75	
Milk Thistle	Sonchus oleraceus	2.0 to 5.0	500	75	
Mintweed	Salvia reflexa	3.0 to 5.0	500	75	
New Zealand Spinach	Tetragonia tetragoniodes	2.0 to 5.0	500	75	
Paterson's Curse	Echium plantagineum	1.0 to 3.0	300	45	
Peanuts	Arachis hypogaea	1.5 to 3.0	300	45	

Table 1: Recommendations for weed control (except when referred to Table 2).						
COMMON NAME	SCIENTIFIC NAME		APPLICATION RATE			
		Boom or directed sprayer L/ha	Handgun mL/100 L	Knapsack mL/15 L		
ANNUAL WEEDS – continued						
Pigweed	Portulaca oleracea	3.0 to 5.0	500	75		
Pinkburr	Urena lobata	2.0 to 5.0	500	75		
Potato Weed	Galinsoga parviflora	2.0 to 5.0	500	75		
Prairie Grass (refer Note 1)	Bromus unioloides ¹	4.0 to 5.0	500	75		
Prickly Lettuce	Lactuca serriola	3.0 to 5.0	500	75		
Red Natal Grass	Rhynchelytrum repens	2.0 to 5.0	500	75		
Ryegrass (annual)	Lolium rigidum	2.0 to 5.0	500	75		
Saffron Thistle	Carthamus lanatus	1.5 to 5.0	500	75		
St. Barnaby's Thistle	Centaurea solstitialis	1.5 to 5.0	500	75		
Sago Weed	Plantago cuninghamii	2.0 to 3.0	300	45		
Scarlet Pimpernel	Anagallis arvensis	2.0 to 5.0	500	75		
Setaria	Setaria italic	2.0 to 5.0	500	75		
Sheep Thistle	Carduus tenuiflorus	2.5 to 5.0	500	75		
Silver Grass	Vulpia myuros	2.0 to 5.0	500	75		
Sorghum / Sudax	Sorghum bicolour	2.0 to 5.0	500	75		
Square Weed	Spermacoce latifolia	2.0 to 5.0	500	75		
Stagger Weed	Stachys arvensis	2.0 to 5.0	500	75		
Star of Bethlehem	Ipomoea quamoclit	2.0 to 5.0	500	75		
Summer Grass	Digitaria ciliaris	2.0 to 5.0	500	75		
Thickhead	Crassocephalum crepidioides	3.0 to 5.0	500	75		
Three Cornered Jack	Emex australis	2.0 to 5.0	500	75		
Tomato	Lycopersicon esculentum	2.0 to 5.0	500	75		
Townsville Stylo	Stylosanthes humilis	1.0 to 3.0	300	45		
Turnip Weed	Rapistrum rugosum	3.0 to 5.0	500	75		
Variegated Thistle (refer also Table 2)	Silybum marianum	2.5 to 5.0	500	75		
Wheat	Triticum aestivum	4.0 to 5.0	500	75		
Wild Carrot	Daucus glochidiatus	2.0 to 5.0	500	75		
Wild Gooseberry	Physalis minima	2.0 to 5.0	500	75		
Wild Mustard	Sysimbrium orientale	2.0 to 5.0	500	75		
Wild Oats (refer also Table 2)	Avena spp.	3.0 to 5.0	500	75		
Wild Radish	Raphanus raphistrum	5.0	500	75		
Wireweed (refer also Table 2)	Polygonum aviculare	1.5 to 5.0	500	75		

Table 1: Recommendations for weed control (except when referred to Table 2).						
COMMON NAME	SCIENTIFIC NAME		APPLICATION RATE			
		Boom or directed sprayer L/ha	Handgun mL/100 L	Knapsack mL/15 L		
PERENNIAL WEEDS						
Blady Grass	Imperata cylindrical	3.0 to 4.0	400	60		
Cape Tulip	Homeria spp.	2.0 to 3.0	300	45		
Centro	Centrosema pubescens	1.0 to 5.0	500	75		
Clover Glycine	Glycine latrobeana	1.0 to 3.0	300	45		
Couch Grass	Cynodon dactylon	2.5 to 5.0	500	75		
Cow Pea	Vigna unguiculate	1.0 to 3.0	300	45		
Giant Sensitive Plant	Mimosa invisa	2.0 to 5.0	500	75		
Greenleaf Desmodium	Desmodium intortum	1.0 to 3.0	300	45		
Johnson Grass	Sorghum halepense	3.0 to 5.0	500	75		
Panicum spp.	Panicum spp.	2.0 to 5.0	500	75		
Paspalum spp.	Paspalum spp.	3.0 to 5.0	500	75		
Perennial Bindweed	Convolvulus arvensis	2.0 to 3.0	300	45		
Shamrock	Oxalis corymbosa	3.0	300	45		
Sida Weed (refer also Table 2)	Sida retusa	3.0 to 5.0	500	75		
Silverleaf Desmodium	Desmodium uncinatum	4.0 to 5.0	500	75		
Siratro	Macroptilium atropurpureum	1.0 to 3.0	300	45		
Stink Grass	Eragrostis cilianensis	3.0 to 5.0	500	75		
White Xlover	Trifolium repens	3.0 to 5.0	500	75		
White Eye	Richardia brasiliensis	3.0 to 5.0	500	75		
Willow Herb	Epilobium spp.	4.0 to 5.0	500	75		

Notes:

^{1.} Well-established clumps of Prairie grass and Brome grasses may only be suppressed at these rates. Follow-up treatments may be necessary to control regrowth.

2. Good control will be achieved on small and medium sized plants only in non-crop situation.

Table 2: For control of weeds in commercial and industrial areas, rights of way and other non-agricultural areas (when referred from Table 1).						
COMMON NAME	SCIENTIFIC NAME		APPLICATION RATE			
		Boom or directed sprayer L/ha	Handgun mL/100 L	Knapsack mL/15 L		
ANNUAL WEEDS						
Caltrop Burr	Tribulus terrestris	4.0 to 5.0	500	75		
Deadnettle	Lamium amplexicaule	6.0	600	90		
Lesser Canary Grass	Phalaris minor	4.0 to 6.0	600	90		
Liverseed Grass	Urochloa panicoides	1.5	150	23		
Variegated Thistle	Silybum marianum	6.0	600	90		
Wild Oats	Avena spp.	5.0 to 6.0	600	90		
Wireweed	Polygonum aviculare	2.0 to 5.0	500	75		
PERENNIAL WEEDS						
Sida Weed	Sida retusa	4.0 to 5.0	500	75		

GENERAL INSTRUCTIONS

ACP Glufosinate 200 Herbicide is a non-volatile herbicide with non-selective activity against many annual and perennial broadleaf weeds and grasses. The product is absorbed by plant foliage and green stems. It is not significantly translocated as an active herbicide throughout the plant, and therefore will only kill that part of a green plant that is contacted by spray. ACP Glufosinate 200 Herbicide does not provide residual weed control. Visible symptoms of control appear in 3 to 7 days, but complete desiccation may take 20 to 30 days under cool conditions. Best results are achieved when application is made under good growing conditions. Application to weeds under stress (e.g. due to continuous severe frosts, dry or waterlogged conditions) should be avoided.

Soil fumigation / sterilisation

ACP Glufosinate 200 Herbicide is metabolised (broken down) by microorganisms in the soil to become inactive. Soil fumigation or sterilisation will reduce the number of microorganisms present, thus slowing the breakdown of the product. As damage to transplants or seedings may occur, it is not advisable to apply ACP Glufosinate 200 Herbicide in conjunction with soil fumigation or sterilisation.

Plastic mulches

ACP Glufosinate 200 Herbicide will remain active on inert surfaces such as plastic. Special care should be taken when applying the product over plastic mulches, as plant contact with the mulch after spraying may result in crop damage.

COMPATIBILITY

ACP Glufosinate 200 Herbicide is compatible with most residual herbicides e.g. Simazine, diuron, oxyfluorfen, norfluazuron and Oryzalin. The addition of a wetting agent or other adjuvant is generally not considered necessary. However, benefit has been obtained using a wetting agent on hard-to-wet weeds when using water rates in excess of 500 L/ha. The rate is 25 mL/100 L of a 1000 g/L non-ionic wetting agent, or equivalent.

MIXING

ACP Glufosinate 200 Herbicide mixes easily with water. Clean water should always be used for mixing with the product.

Ensure that the spray tank is free of any residues of previous spray materials. Two thirds fill the spray tank with clean water, and with agitator operating add the required amount of ACP Glufosinate 200 Herbicide. Add other relevant compatible products. Top the tank up to the required volume with clean water with agitator running.

APPLICATION EQUIPMENT

Ground Sprayers

Aim to apply a thorough and even coverage of spray to the target plant. Dense stands of weeds should be thoroughly wetted with spray. Incomplete coverage may result in poor control. Equipment should be such that adequate coverage, penetration and volume of spray liquid can be achieved.

Boom or Directed Sprayer Equipment

ACP Glufosinate 200 Herbicide should be applied at label rates (refer to specific column in the lists of weeds controlled) in sufficient water to give thorough coverage of weeds. It has been found that 300 to 500 L/ha has given good results under most weed conditions.

Special care must be taken when using sprayer/slasher combination units not to cause dust and turbulence, which can carry spray into non-target areas.

Knapsack and Handgun Equipment

ACP Glufosinate 200 Herbicide should be applied at label rates (refer to specific columns in the lists of weeds controlled) in adequate water to thoroughly wet the weeds being sprayed, i.e. 500 to 1000 L/ha. Dense stands will require up to 1000 L/ha of spray mixture, whereas less dense stands will require less water. High volume application using hollow-cone nozzles for hand spraying is recommended.

Controlled Droplet Application (CDA) Equipment

ACP Glufosinate 200 Herbicide may be applied through CDA row spraying equipment fitted with a solid (impermeable) shroud or skirt, at rates as recommended for boom or directed sprayers (Refer to specific column in the lists of weeds controlled), provided thorough spray coverage of weeds can be achieved. Apply preferably when weeds are less than 15 cm in height, with the equipment set up so that the spray dome only just touches the tops of the weeds. A total spray volume of 20 to 30 L/ha has been found to give good results. DO NOT mix residual herbicides or any spray adjuvants with ACP Glufosinate 200 Herbicide when using CDA equipment.

Warning: Because the spray solution is highly concentrated particular care must be taken when using ACP Glufosinate 200 Herbicide through CDA equipment to avoid contact of the spray solution with any part of the crop trunk or canopy. DO NOT apply the product through equipment fitted with bristle skirts. Particular care should be taken when using CDA equipment around green or uncalloused bark. Please refer to PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS. CDA equipment must not be used for application in cherry orchards.

SPRAYER CLEANUP

Clean all equipment after use by thoroughly flushing with water.

AIRCRAFT

DO NOT apply by aircraft.

RESISTANT WEEDS WARNING

ACP Glufosinate 200 Herbicide is a member of the glycine group of herbicides. The product

GROUP N HERBICIDE

is an inhibitor of glutamine synthetise. For weed resistance management the product is a Group N Herbicide. Some naturally occurring weed biotypes resistant to the product and other Group N 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 the product or other Group N herbicides. Since occurrence of resistant weeds is difficult to detect prior to use, Australis Crop Protection Pty Ltd accepts no liability for any losses that may result from the failure of ACP Glufosinate 200 Herbicide to control resistant weeds.

PRECAUTIONS

Re-entry Period: DO NOT allow entry into treated areas until the spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENTDO NOT contaminate streams, rivers or waterways with this product or the used container.

PROTECTION OF CROPS. 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 apply on desirable foliage or allow spray to drift onto the foliage of plants, trees or vines, as damage will occur.

DO NOT allow product to contact green or uncalloused bark (such as on young trees and vines) or cut, cracked, damaged or wounded tissue, where the affected surface is not adequately healed. ACP Glufosinate 200 Herbicide may be used around trees/vines less than two years old provided they are effectively shielded from spray and spray drift.

DO NOT allow desirable plant foliage to contact any inert surface, such as plastic mulches, which have been treated with ACP Glufosinate 200 Herbicide. DO NOT apply the product to recently furnigated or sterilised soil.

STORAGE AND DISPOSAL

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

For Non-Refillable Containers: Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, triple rinse, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Empty containers and product must not be burnt.

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

SAFETY DIRECTIONS

Harmful if absorbed by skin contact or swallowed. Will irritate the eyes and skin. Avoid contact with the eyes and skin. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, elbow-length PVC or nitrile gloves and face shield or goggles. If product on skin, immediately wash area with soap and water. If product in eyes, wash out immediately with water. Wash hands after use. 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.

MATERIAL SAFETY DATA SHEET

If additional hazard information is required, refer to Material Safety Data Sheet which is available from the supplier.

CONDITIONS OF SALE: The use of ACP Glufosinate 200 Herbicide being beyond the control of the manufacturer no warranty expressed or implied is given by Australis Crop Protection 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 Australis Crop Protection Pty Ltd accepts no responsibility for any consequence whatsoever resulting from the use of this product.