Product Name: AC Ray 675 WG Herbicide
APVMA Approval No: 91701/133168

RLP APPROVED

Label Name:	AC Ray 675 WG Herbicide

Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Constituent Statements:	ACTIVE CONSTITUENTS: 375 g/kg AMINOPYRALID present as the potassium salt 300 g/kg METSULFURON-METHYL

Mode of Action:	GROUP 4 2 HERBICIDE

Statement of Claims:	For the control or suppression of weeds in winter cereals, pastures, non-agricultural areas, commercial and industrial areas and rights-of-way as specified in the Directions for Use

Net Contents:	500 g - 10 kg

Restraints:	DO NOT sow susceptible crops into paddocks treated the previous season with AC RAY 675 WG until after the required plantback period has elapsed – see GENERAL INSTRUCTIONS. DO NOT spray if foliage is wet from rain or dew or rain is likely to occur within one hour or if heavy rain is likely to occur within 48 hours. DO NOT store a suspension of AC Ray 675 WG or tank mixes for more than 1 day otherwise significant breakdown will occur. DO NOT use on furrow or flood irrigated crops. DO NOT apply before the three leaf stage of the crop when used for post emergent weed control. DO NOT treat newly sown pastures as severe damage may occur. DO NOT use on pasture seed crops. DO NOT apply more than one application of AC Ray 675 WG either alone or tank-mixed per season. DO NOT apply to blackberry bushes bearing mature fruit. DO NOT burn off, cut or clear blackberry or other woody weeds for at least 6 months after spraying.

	DO NOT apply by aerial application in wind in excess of 15 km/hr and/or air temperatures above 35ºC (except when applying to Mimosa pigra). DO NOT use in winter cereal crops undersown with legume pasture species e.g. medics, clovers. DO NOT apply other sulfonylurea herbicides in a tankmix with AC Ray 675 WG Herbicide as a preplant application. Use of this product on land that have a soil pH of 5.5 or less may result in some crop retardation, particularly if the crop is stressed – see comment in point below. DO NOT apply to crops or weeds which may be stressed due to prolonged periods of extreme cold, moisture stress (water-logging or drought) or previous herbicide treatment, as crop damage or reduced levels of control may result. When treatment is followed by a severe stress such as drought, prolonged cold, waterlogging or frost condition, growth retardation may occur. Crops normally recover without loss of yield. Disease, nematode or insect damage after application may also result in crop injury. DO NOT apply to wheat varieties King, Jacup, Miling and Harrier. AC Ray 675 WG has been tested over major commercially grown cereal varieties, but not all of those that may be grown. For more information on cereal variety selectivity consult your local agronomist or Axichem representative. Care should be taken if it is intended to apply AC Ray 675 WG in the same season to a crop already treated with another sulfonylurea herbicide as crop damage may occur. DO NOT apply to durum wheat varieties. AVOID double overlaps to reduce risk of injury to rotational crops the following season. In areas prone to flooding, treatment should commence after any annual flooding, as such areas flooded within 9 months following application may have reduced results.

Directions for Use:	This section contains file attachment.

Other Limitations:	IN TASMANIA FOR BLACKBERRY DO NOT treat bushes carrying mature or near mature fruit. FOR NATIVE VEGETATION Use of AC RAY 675 WG Herbicide on native vegetation must be done in accordance with STATE and/or LOCAL legislation.

Withholding Periods:	WITHHOLDING PERIODS When using AC RAY 675 WG alone Cereal crops: Harvesting for grain: NOT REQUIRED WHEN USED AS DIRECTED. Grazing for meat production: DO NOT GRAZE FOR 21 DAYS AFTER APPLICATION OR IF GRAZING PRIOR TO 21 DAYS AFTER APPLICATION DO NOT send animals for slaughter that have grazed treated pasture WITHIN 21 DAYS OF APPLICATION UNLESS first placing the animals on clean feed for 3 days before leaving the farm. Grazing for milk production: NOT REQUIRED WHEN USED AS DIRECTED. Cutting for animal feed: DO NOT CUT FOR 21 DAYS AFTER APPLICATION. Pasture: Grazing for meat production: DO NOT GRAZE FOR 56 DAYS AFTER APPLICATION OR IF GRAZING PRIOR TO 56 DAYS AFTER APPLICATION DO NOT send animals for slaughter that have grazed treated pasture WITHIN 56 DAYS OF APPLICATION UNLESS first placing the animals on clean feed for 3 days before leaving the farm. Grazing for milk production: DO NOT GRAZE FOR 3 DAYS AFTER APPLICATION. Cutting for animal feed: DO NOT CUT FOR 56 DAYS AFTER APPLICATION.

	When using AC Ray 675 WG in tank mixtures listed in the DIRECTIONS FOR USE tables: Cereal crops (AC Carnage 300) Clopyralid: Grazing for meat production: DO NOT GRAZE FOR 21 DAYS AFTER APPLICATION OR IF GRAZING PRIOR TO 21 DAYS AFTER APPLICATION DO NOT send animals for slaughter that have grazed treated pasture within 21 DAYS OF APPLICATION UNLESS first placing the animals on clean feed for 7 days before leaving the farm. Grazing for milk production: DO NOT GRAZE FOR 7 DAYS AFTER APPLICATION. Cutting for animal feed: DO NOT CUT FOR 21 DAYS AFTER APPLICATION. Cereal crops (2,4-D products): Grazing for meat production: DO NOT GRAZE FOR 21 DAYS AFTER APPLICATION OR IF GRAZING PRIOR TO 21 DAYS AFTER APPLICATION DO NOT send animals for slaughter that have grazed treated pasture within 21 DAYS OF APPLICATION UNLESS first placing the animals on clean feed for 3 days before leaving the farm. Grazing for milk production: DO NOT GRAZE FOR 7 DAYS AFTER APPLICATION. Cutting for animal feed: DO NOT CUT FOR 21 DAYS AFTER APPLICATION. Cereal crops (MCPA products and AC Ruffle): Grazing for meat production: DO NOT GRAZE FOR 21 DAYS AFTER APPLICATION. Grazing for milk production: DO NOT GRAZE FOR 7 DAYS AFTER APPLICATION. Cutting for animal feed: DO NOT CUT FOR 21 DAYS AFTER APPLICATION. For other tank mixtures observe the WHP and/or export intervals for the partner product if longer than those for AC Ray 675 WG.

Trade Advice:	Fodder Intended for Export: Some countries have limits on the level of residue acceptable in animal feeds. Please consult your exporter before using this product on pasture destined to be used for export fodder. LIVESTOCK DESTINED FOR EXPORT MARKETS When AC RAY 675 WG is used as directed and the above withholding period is observed, treated grain and livestock commodities are considered acceptable for export. However, export requirements are subject to change. Consult your exporter for updated information about specific market requirements For other tank mixtures observe the WHP and/or export intervals for the partner product if longer than those for AC RAY 675 WG.

General Instructions:	This section contains file attachment.

Resistance Warning:	RESISTANT WEEDS WARNING GROUP 4 2 HERBICIDE AC RAY 675 WG Herbicide contains members of the pyridine and sulfonyl urea group of herbicides. The product has the disrupters of plant cell growth and acetolactate synthase (ALS) inhibitor modes of action. For weed resistance management, the product is a Group 4 + Group 2 herbicide. Some naturally occurring weed biotypes resistant to the product and other Group 4 and/or 2 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 this product or other Group 4 or Group 2 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Axichem Pty Ltd accepts no liability for any losses that may result from the failure of the product to control resistant weeds. Strategies to minimise the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant or local Department of Agriculture.

Precautions:	PRECAUTIONS Re-entry: wait until the spray has dried, if prior re-entry is required wear cotton overalls buttoned to neck and wrist (or equivalent clothing) and elbow length chemical resistant gloves. Clothing must be laundered after each days use.

Protections:	PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS See also MINIMUM RECROPPING PERIODS SECTION Susceptible crops and plants include, but are not limited to, canola, chickpeas, clovers, cotton, faba beans, field peas, flowers, fruit trees, hops, lentils, lupins, lucerne, medics, ornamentals, potatoes, peas, safflower, shade trees, sub-clover, sugar beet, tobacco, tomatoes, vegetables, vetches, vines (grape and kiwi fruit), wattles and white clover. Field peas, faba beans, lentils and vetches are particularly susceptible. This product will kill legumes (clovers, medics) present in the pastures at the time of spraying. In the season, following application of this product the regeneration or establishment of sensitive crops may be adversely affected by soil residues. DO NOT allow spray drift onto sensitive native vegetation. DO NOT apply close to or on areas containing roots of desirable vegetation, where treated soil may be washed to areas growing, or to be planted to desirable plants, or on sites where surface water from heavy rain can be expected to run off to areas containing or to be planted to susceptible crops or plants. DO NOT move soil, which may have been sprayed, to areas where desirable plants are to be grown. MANAGEMENT OF RESIDUES IN COMPOST, MULCHES AND ANIMAL WASTE Do not send treated crops off-farm as hay, silage or for use as animal bedding. Aminopyralid residues from treated plants may pass into animal manure, composts, mushroom substrates, mulches and cause injury to sensitive broadleaf plants. Do not spread manure from animals that have grazed or consumed forage or hay from treated areas on land used for growing susceptible broadleaf crops. Stubble from Treated Crops Ensure that harvesters effectively spread crop straw and do not leave a heavy ‘header trail’ after harvest. Burn (if legal in the area) or bale and remove, slash or incorporate stubble as soon as practical after harvest and for as long as possible before planting next year to allow microbial breakdown of any residues in straw. Heavy stubble loads may carry more residues into the following season. Where heavy stubble burdens and/or non-wetting soils exist and less than the recommended amount of rain has fallen from application to planting the susceptible crop (see above), only plant a winter or summer cereal. Where AC Ray 675 WG Herbicide residue carryover is suspected and susceptible crops are to be planted, test the treated area as follows: Field bioassay – where rain allows, plant a small area of the susceptible crop 4 to 6 weeks before desired planting date and take note of any symptoms of injury. If any herbicide symptoms are observed, only plant a cereal crop (see recommendations for northern and southern Australia below). Pot bioassay – where not practical to do field bioassay, plant a small number of seeds of the susceptible crop into pots containing soil from the treated field. Do this test 4 to 6 weeks before desired planting date. If any herbicide symptoms are observed, only plant a cereal crop (see recommendations for northern and southern Australia below). Lentils are highly sensitive to AC Ray 675 WG Herbicide and therefore are a good test species for a bioassay. Planting Crops Following Use of AC RAY 675 WG in Previous Cereal Crop Planting crops ‘dry’ without appropriate rain (see below) in the fallow prior to planting increases the risk of injury to susceptible crops. This practice should be avoided or only plant a cereal crop. In severely dry conditions, where less than 30% of average annual

	rainfall and/or less than the minimum rain has fallen between application and planting the next year (see below), only plant a cereal crop. PROTECTION OF LIVESTOCK DO NOT graze or cut treated crops or plants for stock food except as specified under WITHHOLDING PERIODS. It is recommended, however, not to graze treated areas for 2 to 3 days to ensure product efficacy. Poisonous plants may become more palatable after spraying and stock should be kept away from these plants until they have died down. PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or watercourses with the chemical or used containers.

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.

Safety Directions:	May irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container, mixing and loading and preparing spray, wear cotton overalls buttoned to neck and wrist (or equivalent clothing) and elbow length chemical resistant gloves and when mixing, loading and pouring large quantities, wear cotton overalls over normal clothing, buttoned to neck and wrist and elbow length chemical resistant gloves. Wash hands after use. After each day’s use, wash gloves and contaminated clothing.

First Aid Instructions:	If poisoning occurs contact a doctor or Poisons Information Centre. Phone: Australia 13 11 26; New Zealand 0800 764 766. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

First Aid Warnings:	

DIRECTIONS FOR USE

PASTURE and NON-AGRICULTURAL SITUATIONS

Table 1: High Volume Spraying (Hand Gun)
See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

NON AGRICULTURAL AREAS (NATIVE PASTURES❶), COMMERCIAL AND INDUSTRIAL AREAS, RIGHTS-OF-WAY			
Adjuvant: Always add AXIWETTA 1000 at 100 mL/100 L or an alternative **(see the section "Use of SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)** unless AC Saturate or AC Para Spray Oil is recommended.			
WEEDS CONTROLLED	**STATES**	**RATE (g/100 L WATER)**	**CRITICAL COMMENTS**
Alligator weed (*Alternanthera philoxeroides*)	NSW, Qld only	20	Apply in terrestrial situations only. Follow-up applications over at least two seasons are essential for complete control.
Apple box (*Angophora floribunda*)	NSW, Qld, SA only	20 + AC Saturate (200 mL/100 L)	Apply to plants up to 4 m high. Ensure thorough foliage cover. Results can not be guaranteed where suckers originate from large lignotubers.
Messmate stringybark (*Eucalyptus obliqua*)			
Peppermint gum (*E. radiata*)			
Red gum (*E. blakelyi*)			
Yellow box (*E. melliodora*)			
Australian blackthorn (*Bursaria spinosa*)	NSW, Qld, Tas, Vic only	20	Spray to thoroughly wet all foliage, but not cause run-off.
Bellyache bush (*Jatropha gossypifolia*)	Qld only	20 + AC Saturate (200 mL/100 L)	
Bitou bush/Boneseed (*Chrysanthemoides monilifera*)	NSW, Qld, Vic, SA only	20	Spray to thoroughly wet all foliage. Minimise contact with desirable species.
Blackberry (*Rubus* spp.)	All States	20 + AC Para Spray Oil (500 mL/100 L) or AC Saturate (200 mL/100 L)	Spray to thoroughly wet all foliage and canes. Ensure peripheral runners are sprayed. Follow-up applications over at least two seasons are essential for complete control. Due to widespread picking of blackberries by the public, it is not recommended to apply to bushes bearing mature fruit.
Bridal creeper (*Myrsiphyllum asparagoides*)	SA only	10	Apply during mid-June to late August. Follow-up applications over at least two seasons will be required for complete control. Water volumes of 500 to 800 L/ha are recommended to minimise the risk of damage to native vegetation.
Common bracken (*Pteridium esculentum*)	All States	20	Spray after full frond expansion. Spray to thoroughly wet all foliage but not to cause run-off.
Crofton weed (*Eupatorium adenophorum*)	Qld, NSW only	30	Spray to thoroughly wet all foliage but not to cause run-off. Extra care should be taken to get good spray penetration when spraying bushes situated in thickets. Best results obtained on younger plants. If regrowth occurs, retreat in the subsequent growth period.
Fennel (*Foeniculum vulgare*)	NSW only	20	
Golden dodder (*Cuscuta australia*)	NSW, Qld, Vic, SA only	2	Apply as a spot spray to point of run-off. Ensure correct coverage of infested area. Apply pre-flowering.
Gorse (*Ulex europaeus*)	Vic, Tas, SA, NSW only	30 + AC Saturate (200 mL/100 L)	Apply to bushes up to 2 m tall. Ensure thorough spray penetration and coverage of the whole plant.

Table 1: High Volume Spraying (Hand Gun) continued
See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

NON AGRICULTURAL AREAS (NATIVE PASTURES❶), COMMERCIAL AND INDUSTRIAL AREAS, RIGHTS-OF-WAY			
Adjuvant: Always add AXIWETTA 1000 at 100 mL/100 L or an alternative **(see the section "SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)** unless AC Saturate or AC Para Spray Oil is recommended.			
WEEDS CONTROLLED	**STATES**	**RATE (g/100 L WATER)**	**CRITICAL COMMENTS**
Harrisia cactus (*Eriocereus* spp.)	Qld only	40	Spray to thoroughly wet using water volumes of 1000 to 1400 L/ha. Follow-up treatment may be necessary.
Hawthorn (*Crataegus laevigata*)	NSW, Vic, Tas only	20	Spray to thoroughly wet all foliage but not to cause run-off.
Inkweed (*Phytolacca octandra*)	Qld, NSW only	10	
Japanese sunflower (*Tithonia diversifolia*)	NSW only	20	
Kangaroo thorn (*Acacia paradoxa*)			Apply to bushes up to 2.5 m high.
Lantana (*Lantana camara*)	Qld, NSW only		Apply to bushes up to 2 m tall. Spray to thoroughly wet all foliage and stems. Spray should penetrate throughout the bush. Should regrowth occur retreatment will be necessary.
Mistflower (*Eupatorium riparium*)		10	
Noogoora burr (*Xanthium pungens*)	NSW only	14	
Parthenium (*Parthenium hysterophorus*)	Qld, NSW only	10	Spray to thoroughly wet all foliage but not to cause run-off.
Paterson's curse (*Echium plantagineum*)	All States		
Privet (*Ligustrum* spp.)	Qld, NSW only	20	Apply to bushes up to 3 m high. Complete foliar spray coverage is essential for control; partial spray coverage will result in regrowth recovery.
Ragwort (*Senecio jacobaea*)	NSW, Vic, Tas only	10	Apply to actively growing plants at rosette to cabbage stage.
Rubber vine (*Cryptostegia grandiflora*)	Qld only	30	Apply to bushes up to 3 m in height. Apply from October through April when bushes are actively growing. Ensure thorough spray coverage of all foliage and leaders. Incomplete coverage will result in regrowth.
Smartweed (*Polygonum* spp.)	Qld, NSW only	20	Apply to actively growing plants.
Sweet briar (*Rosa rubiginosa*)	NSW, Vic, Tas, SA only		Avoid spraying when leaf fall has commenced or after the end of February. Spray to thoroughly wet all foliage but not to cause run-off.
Wait-a-while (*Caesalpinia decapetala*)	Qld, NSW only		
Wild turnip (*Brassica tournefortii*)	NSW only	10	Apply to actively growing plants.

❶ **WILL DAMAGE LEGUMES PRESENT IN THE PASTURE**

Table 2: Aerial Application (by Helicopter only)
See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

NATIVE PASTURES❶, NON AGRICULTURAL AREAS, COMMERCIAL AND INDUSTRIAL AREAS, RIGHTS-OF-WAYS AND FLOODPLAINS			
Adjuvant: Always add AXIWETTA 1000 at 100 mL/100 L or an alternative **(see the section "Use of SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)**.			
WEEDS CONTROLLED	**STATES**	**RATE (g/ha)**	**CRITICAL COMMENTS**
Blackberry (*Rubus* spp.)	NSW, Tas, Vic only	320	Apply when bushes are actively growing. (Vic only: Apply between December and April). Use not less than 100 L prepared spray/ha. Due to widespread picking of blackberries by the public, it is not recommended to apply to bushes bearing mature fruit.
Mimosa pigra	NT only	100 or 120	Use the higher rate when air temperature exceeds 35°C.

❶ **WILL DAMAGE LEGUMES PRESENT IN THE PASTURE**

Table 3: Low Volume High Concentrate Application Techniques (Gas Gun)
See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

NON AGRICULTURAL AREAS (NATIVE PASTURES❶), COMMERCIAL AND INDUSTRIAL AREAS, RIGHTS-OF-WAY			
BEFORE USE READ the APPLICATION section below for instructions on use of the Gas Gun			
WEEDS CONTROLLED	**STATES**	**RATE (g/10 L WATER)**	**CRITICAL COMMENTS**
Apple box (Angophora floribunda)	NSW, Qld, SA only	20 + AC Saturate (20 mL/10 L)	Apply to plants up to 4 m high. Results cannot be guaranteed where suckers originate from large lignotubers.
Messmate stringybark (*Eucalyptus obliqua*)			
Peppermint gum (*E. radiata*)	NSW, Qld, SA only	20 + AC Saturate (20 mL/10 L)	Apply to plants up to 4 m high. Results cannot be guaranteed where suckers originate from large lignotubers.
Red gum (*E. blakelyi*)			
Yellow box (*E. melliodora*)			
Bitou bush/Boneseed (*Chrysanthemoides monilifera*)	NSW, Qld, Vic, SA only		Minimise contact with desirable species.
Blackberry (*Rubus* spp.)	All States		Ensure peripheral runners are sprayed. Due to widespread picking of blackberries by the public, it is not recommended to apply to bushes bearing mature fruit.
Privet (*Ligustrum* spp.)	Qld, NSW only		Apply to bushes up to 3 m high. Partial spray coverage will result in regrowth recovery.
Sweet briar (*Rosa rubiginosa*)	NSW, Vic, Tas, SA only		Avoid spraying when leaf fall has commenced or after the end of February. Apply to bushes less than 2 m high as application to bushes in excess of 2 m high may produce variable results.
Wait-a-while (*Caesalpinia decapetala*)	Qld, NSW only		

❶ **WILL DAMAGE LEGUMES PRESENT IN THE PASTURE**

Table 4: Boom Application
See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

NON AGRICULTURAL AREAS (NATIVE PASTURES❶), COMMERCIAL AND INDUSTRIAL AREAS, RIGHTS-OF-WAY			
Adjuvant: Always add AXIWETTA 1000 at 100 mL/100 L or an alternative **(see the section "SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)** unless AC Saturate is recommended.			
WEEDS CONTROLLED	**STATES**	**RATE (g/ha)**	**CRITICAL COMMENTS**
Alligator weed (*Alternanthera philoxeroides*)	NSW, Qld only	160	Apply in terrestrial situations only. Follow-up applications over at least two seasons are essential for complete control.
Common bracken (*Pteridium esculentum*)	All States	120	Spray after full frond expansion. Adjust boom height to ensure correct spray overlap.
Darling pea *(Swainsona* spp.)	NSW only	20	Apply during spring.
Great mullein (*Verbascum thapsus*)		40 + AC Saturate (200 mL/100 L)	Regrowth may occur if growing conditions are not good. Apply during spring at times of good soil moisture to rosettes before stem elongation.
Parthenium *(Parthenium hysterophorus*)	Qld, NSW only	14	Apply up to rosette stage. Spray to thoroughly wet all foliage. Adjust boom height to ensure complete overlap.
Paterson's curse (*Echium plantagineum*)	All States	30	Spray to thoroughly wet all foliage. Adjust boom height to ensure complete overlap
Ragwort (*Senecio jacobaea*)	NSW, Vic, Tas only		Apply to actively growing plants at rosette to cabbage stage.
Smartweed *(Polygonum* spp.)	Qld, NSW only	20	Apply to actively growing plants.

❶ **WILL DAMAGE LEGUMES PRESENT IN THE PASTURE**

Table 5: High Volume Spraying (Hand Gun): Tank Mixes of AC RAY 675 WG with glyphosate (450 g/L) See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

NON AGRICULTURAL AREAS (NATIVE PASTURES❶), COMMERCIAL AND INDUSTRIAL AREAS, RIGHTS-OF-WAY			
Adjuvant: Always add AXIWETTA 1000 at 100 mL/100 L or an alternative **(see the section "Use of SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)** unless AC Saturate is recommended.			
WEEDS CONTROLLED	**STATES**	**RATE (/100 L WATER)**	**CRITICAL COMMENTS**
Blackberry (*Rubus* spp.)	All States	20 g + 150 mL glyphosate (450 g/L) + AC Para Spray Oil (500 mL/100 L) or AC Saturate (200 mL/100 L)	Apply in terrestrial situations only. Follow-up applications over at least two seasons are essential for complete control. Due to widespread picking of blackberries by the public, it is not recommended to apply to bushes bearing mature fruit.
Gorse (*Ulex europaeus*)	Vic, SA, NSW, Tas only	20 g + 150 mL glyphosate (450 g/L) + AC Saturate (200 mL/100 L)	Apply to bushes up to 2 m tall. Ensure thorough spray penetration and coverage of the whole plant.
Lantana *(Lantana camara*)	Qld, NSW only		Apply to bushes up to 2 m tall. Spray to thoroughly wet all foliage and stems. Spray should penetrate through the bush.
St. John's wort (*Hypericum perforatum*)	NSW, Vic, SA, WA only		Spray to wet, but not to cause run-off.
Tree-of-Heaven (*Ailanthus altissima*)	NSW only		

❶ **WILL DAMAGE LEGUMES PRESENT IN THE PASTURE**

Table 6 Aerial or Boom Application: Tank Mixes of AC RAY 675 WG with glyphosate (450 g/L) See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

NON AGRICULTURAL AREAS (NATIVE PASTURES❶), COMMERCIAL AND INDUSTRIAL AREAS, RIGHTS-OF-WAY			
WEEDS CONTROLLED	**STATES**	**RATE (g/ha)**	**CRITICAL COMMENTS**
Blackberry (*Rubus* spp.)	All States	120 + 6.5 L glyphosate (450 g/L) + AC Para Spray Oil (500 mL/100 L) or AC Saturate (100 mL/100 L)	Apply from flowering until prior to leaf yellowing. Due to widespread picking of blackberries by the public, it is not recommended to apply to bushes bearing mature fruit.
Common bracken (*Pteridium esculentum*)		60 + 3.2 L glyphosate (450 g/L) + AC Saturate (100 mL/100 L)	Spray after full frond expansion, but prior to first frosts. Adjust boom height to ensure correct spray overlap.
St John's Wort (*Hypericum perforatum*)	NSW, Vic, SA, WA only	120 + 6.5 L glyphosate (450 g/L) + AC Saturate (100 mL/100L)	

❶ **WILL DAMAGE LEGUMES PRESENT IN THE PASTURE**

Table 7: Ground Boom Application for Control of Certain Broadleaf Weeds in Tolerant Grass Pastures or in a Pasture Renovation See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

ESTABLISHED PASTURES: TOLERANT GRASS SPECIES (Perennial phalaris & cocksfoot stands greater than 1 year old) OR PASTURE RENOVATION❶ (Use in rundown pastures to reduce weed burden before sowing with a pasture in the following year)			
Adjuvant: Always add AXIWETTA 1000 at 200 mL/100 L or an alternative **(see the section "SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)**.			
WEEDS CONTROLLED	**STATES**	**RATE (g/ha)**	**CRITICAL COMMENTS**
Cape tulip: one & two leaf (*Homeria* spp.)	Vic, SA, NSW, WA and Tas only	10	Apply at bulb exhaustion usually during July & early August. More than one year of application may be required to obtain control.
Annual clover (*Trifolium* spp.)	Vic, SA, NSW, WA, Qld and Tas only		Apply before flowering.
Docks (*Rumex* spp.)		10 (seedlings) 20 (established)	Best results when applied in spring prior to bolting.
Doublegee/Spiny emex/Three cornered jack (*Emex australis*)	WA only	10 or 20	Apply up to the 6 leaf stage. Use the higher rate on dense populations.
Storksbill/Wild geranium (*Erodium* spp.)	Vic, SA, NSW and Tas only		Use the higher rate on dense populations. Spray before flowering.
Annual medics (*Medicago* spp.)	Vic, SA, NSW, WA and Tas only	10	For best results apply before flowering.
Onion grass/Guildford grass (*Romulea rosea*)		30	Apply at bulb exhaustion usually late June/July before the onset of browning off caused by the Helminthosporium fungus. When mixing with glyphosate use 10 g/ha.
Paterson's curse (*Echium plantagineum*)	Vic, SA, NSW, WA, Qld and Tas only	20 or 30	Apply lower rate on small plants. Apply higher rate before bolting/flowering.
Ragwort (*Senecio jacobaea*)	Vic, SA, NSW and Tas only	30	Apply to actively growing plants at the rosette to cabbage stage.

Table 7: Ground Boom Application for Control of Certain Broadleaf Weeds in Tolerant Grass Pastures or in a Pasture Renovation continued
See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

ESTABLISHED PASTURES: TOLERANT GRASS SPECIES (Perennial phalaris & cocksfoot stands greater than 1 year old) OR PASTURE RENOVATION❶ (Use in rundown pastures to reduce weed burden before sowing with a pasture in the following year)			
Adjuvant: Always add AXIWETTA 1000 at 200 mL/100 L or an alternative **(see the section "SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)**.			
WEEDS CONTROLLED	**STATES**	**RATE (g/ha)**	**CRITICAL COMMENTS**
Sorrel (*Rumex acetosella*)	Vic, SA, NSW, WA and Tas only	10 (seedlings) 20 (established)	Best results when applied in spring prior to seed heads appearing.
Soursob (*Oxalis pes-caprae*)		10 or 20	Use the higher rate on dense stands. Spray before flowering for best results.
Wild garlic (*Allium vineale*)		30	Apply at bulb exhaustion usually July to early August. More than one year of application may be required to obtain control.

❶ **WILL DAMAGE LEGUMES PRESENT IN THE PASTURE**

Table 8A. Winter cereals (Wheat, barley, triticale and cereal rye) Post crop and weed emergence (NNSW, QLD) Read Crop Safety Directions below.

Adjuvant: Always add Axiwetta 1000 at 100 mL/100 L or an alternative **(see the section "SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)**.			
Apply from 3 leaf up to 1st node stage of the crops (Z13 – Z31). When mixing with other products observe the crop stage for those products.			
WEED	**WEED STAGE**	**RATE (g/ha)**	**CRITICAL COMMENTS**
African turnip weed (*Sisymbrium thellungii*)	Up to 6 leaf stage	10	**Rates:** Where a range of rates and/or tankmixes are recommended, use the higher rates for larger weeds and/or under heavy weed pressures. **Weed growth stage:** Where weed growth stage is not specified in the adjacent column, apply when weeds are small (not greater than 5 cm in height or diameter) and actively growing.
Boggabri weed (*Amaranthus macrocarpus*)	Up to 10 cm diameter	14	
Chickpeas (Volunteer) (*Cicer arietinum*)		10	
Chicory (*Cichorum intybus*)			
Climbing buckwheat (*Fallopia convolvulus*)	Up to 4 leaf stage	14	
Clover (Subterranean) (*Trifolium subterraneum*)		10	
Deadnettle (*Lamium amplexicaule*)	Up to 6 leaf stage		
Dock (broadleaf) (*Rumex obtusifolius*)		10 or 14	
Faba beans (Volunteer) (*Vicia faba*)	Up to the 3 node stage	10	
Hogweed (Wireweed) (*Polygonum aviculare*)	Up to 3 leaf stage	10 or 14	Use higher rate when weed populations are dense.
Indian hedge mustard (*Sisymbrium orientale*)		10	Heavy populations and/or those suffering stress may not be completely controlled – a tank mix with Dow AgroSciences LVE 600 MCPA is recommended.
Medic (*Medicago* spp.)		10	
New Zealand spinach (*Tetragonia tetragonoides*)	Up to 4 leaf stage	14	

Table 8A. Winter cereals (Wheat, barley, triticale and cereal rye) Post crop and weed emergence (NNSW, QLD) continued
Read Crop Safety Directions below.

Adjuvant: Always add Axiwetta 1000 at 100 mL/100 L or an alternative **(see the section "SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)**.			
Apply from 3 leaf up to 1st node stage of the crops (Z13 – Z31). When mixing with other products observe the crop stage for those products.			
WEED	**WEED STAGE**	**RATE (g/ha)**	**CRITICAL COMMENTS**
Parthenium weed (*Parthenium hysterophorus*)		10 or 14	Use higher rate on rosette stage plants
Prickly lettuce (*Lactuca serriola*)			
Red pigweed (*Portulaca oleracea*)	Up to 6 leaf stage		Use higher rate when weed populations are dense and most weeds at 6 leaf stage.
Saltbush (*Atriplex muelleri*)	Up to 4-6 leaf stage		Use higher rate when weeds at 4 to 6 leaf stage.
Slender celery (*Apium leptophyllum*)		10	
Spiny emex (Doublegee) (*Emex australis*)		10 or 14	
Stagger weed (*Stachys arvensis*)		10	
Volunteer sunflower (*Helianthus annuus*)	Up to 4 leaf stage	10 or 14	Use higher rate on plants 4 to 8 leaf stage.
Wild turnip (*Brassica tournefortii*)		10	

Table 8B. AC RAY 675 WG Tank Mixtures: Winter cereals (Wheat, barley, triticale and cereal rye) Post crop and weed emergence (NNSW, QLD)
Read Crop Safety Directions below.

Adjuvant: Always add BS1000 at 100 mL/100 L or an alternative **(see the section "Use of SURFACTANT/WETTING AGENT" in the GENERAL INSTRUCTIONS)**.				
Apply from 3 leaf up to 1st node stage of the crops (Z13 – Z31). When mixing with MCPA and AC Ruffle observe the crop stage for those products.				
WEED	**WEED STAGE**	**RATE (g/ha)**	**CROP GROWTH STAGE**	**CRITICAL COMMENTS**
Turnip weed (*Rapistrum rugosum*)	Apply at 4 to 6 leaf stage	10 + 420 mL AC Caprice 570	Apply from 4 leaf through to the start of jointing (Zadoks 14 – 30)	Rates: Where a range of rates and/or tankmixes are recommended, use the higher rates for larger weeds and/or under heavy weed pressures.
Saffron thistle (*Carthamus lanatus*)		10 + 1050 mL AC Caprice 570	Apply from 5 leaf through to the start of jointing (Zadoks 15 – 30)	
Variegated thistle (*Silybum marianum*)				
Climbing buckwheat (*Fallopia convolvulus*)	Up to 4 leaf stage	10 + 1000 mL AC Ruffle	Apply from early tillering (when main shoot has 4 to 5 leaves plus 2 or more tillers have formed) to start of jointing (first node)	For best control apply at early tillering of the crop as this weed becomes increasing difficult to control as it becomes larger.

Table 9: AC Ray 675 WG+ glyphosate – Fallow/Pre-plant Knockdown Weed Control (NNSW, QLD) See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

Wheat, Canola (Designated Imidazolinone herbicide tolerant Canola varieties only, such as Pioneer 44C73 and 45C75), Barley, Triticale				
WEEDS CONTROLLED	**WEED STAGE AT APPLICATION**	**STATES**	**RATE (g/ha)**	**CRITICAL COMMENTS**
Refer to Tables 8A and 8B and glyphosate labels for Directions for Use.	Refer to Tables 8A and 8B and glyphosate labels for Directions for Use.	NNSW & Qld	10 or 14 g + glyphosate (450) at label rates	DO NOT apply less than 4 months prior to sowing as crop injury may occur, particularly under dry, cold conditions. Apply when weeds are actively growing. Refer to the GENERAL INSTRUCTIONS and CRITICAL COMMENTS of the respective labels in tables 8A and 8B, and glyphosate labels for use directions

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

GENERAL INSTRUCTIONS

MIXING

AC RAY 675 WG Herbicide is a water dispersible granule to be mixed with water. AC RAY 675 WG should be added to the spray tank with simultaneous agitation. If ability to agitate the spray tank is limited, premix the AC RAY 675 WG in a bucket before adding to the main tank. Once diluted correctly, AC RAY 675 WG Herbicide remains dispersed. THE MATERIAL MUST BE KEPT IN SUSPENSION AT ALL TIMES BY CONTINUOUS AGITATION.

When prepared spray solution has been allowed to stand, thoroughly re-agitate before using. In tank mixes AC RAY 675 WG must be in suspension before adding the partner product or surfactant.

If tank mixing with other products, the following order should be followed:

1. Quarter fill the spray tank, maintaining agitation, then:
2. Add AC RAY 675 WG Herbicide (as described above).
3. Add water to half fill the spray tank.
4. Add wettable powders, water dispersible granules or suspension concentrates.
5. Add emulsifiable concentrates.
6. Add the surfactant when spray tank is half full.
7. Add water to bring to the final spray volume.

COMPATIBILITY

AC RAY 675 WG Herbicide is compatible with the following: Broadleaf Herbicides: Bromoxynil, bromoxynil-MCPA, Hotshot, clopyralid 750, MCPA 600, MCPA 570, MCPA 750, AC Dozer, AC Dozer 400, AC Scrubba, AC Pulverize 75-D, AC Ruffle and glyphosate.

Insecticides: Chlorpyrifos 500 EC. Some increased temporary pasture yellowing may occur when AC RAY 675 WG Herbicide is applied as a tank mix with this insecticide.

USE OF SURFACTANT/WETTING AGENT

Only AXIWETTA 1000, AC Para Spray Oil or AC Saturate are recommended for use with AC RAY 675 WG. Not all surfactants or crop oils are of equal quality. Axichem does not support the use of products other than those listed above.

Instructions specific for woody and herbaceous weed control

- If a specific surfactant/wetting agent is not listed in the DIRECTIONS FOR USE table, or when mixing with glyphosate use AXIWETTA 1000 at 100 mL/100 L of final spray solution (0.1 % v/v).
- When AC Saturate is recommended in the DIRECTIONS FOR USE table, use 20 mL/10 L (gas gun application) or; 100 or 200 mL/100 L (boom or high volume applications) (i.e. 0.1 or 0.2% v/v)
- When AC Para Spray Oil is recommended in the DIRECTIONS FOR USE table, use 500 mL/100 L of final spray solution (i.e. 0.5 % v/v).

Instructions specific for treatment of pasture and pasture renovation

- Always add AXIWETTA 1000 at 200 mL/100 L of final spray solution (0.2 % v/v).

APPLICATION

Cropping and Fallow Situations

Ground Boom Spraying

Apply in 50-100 L water/ha using a coarse spray through accurately calibrated equipment. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping as injury to the crop may occur.

Aerial Application

Apply in not less than 30 L water/ha using a coarse spray through accurately calibrated equipment.

Pasture and Non-cropping Situations

High Volume Handgun application

Spray foliage stems and canes until wet. Ensure coverage is uniform and complete. Use pressures of 550-1500 kPa depending on target species and size of bush. Use larger nozzles and higher

pressures for larger bushes. Indicative spray volumes are 3000 L/ha for large woody weeds and 1-2 m high blackberry; and 500-1000 L/ha for small herbaceous weeds such as ragwort.

Gas Gun Application

Apply 50 mL shots to 4-5 m^2 of surface area of the weed to ensure good coverage of all foliage is achieved. This relates to 20 droplets/cm^2 of leaf surface. The use of a suitable marker dye is recommended.

Ground Boom Spray Application

Apply in a minimum of 70 L prepared spray/ha using a coarse spray. Increase to 200 L/ha or more in dense stands.

Aerial Application (by helicopter only)

Apply using at least a coarse spray through accurately calibrated equipment. Apply in a minimum of 100 L/ha on blackberries or 60 L/ha on *Mimosa pigra*. Higher water volumes up to 200 L/ha may be necessary on *Mimosa pigra* to ensure adequate coverage where bushes are large and terrain is steep. Spray using the half overlap opposite pass technique.

CLEANING SPRAY EQUIPMENT

Immediately after spraying thoroughly remove all traces of AC RAY 675 WG Herbicide from mixing and spray equipment as follows:

• Wash down exterior of sprayer before flushing tanks, lines, etc.

• Drain tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean any tank, pump, line and nozzle filters for a minimum of 10 minutes.

Partial Cleaning (Rinse only – before using rig to spray barley, triticale and wheat):

After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, line, hoses and nozzles. Drain and repeat procedure twice.

Complete Cleaning (Decontamination – before using rig to spray crops that are susceptible to AC RAY 675 WG):

• After cleaning the tank as above, fill the tank with clean water and add 300 mL household chlorine bleach (containing 4% chlorine) per 100 L of water. Household bleach should be less than 12 months old, and stored away from direct sunlight. Flush through boom and hoses then allow to stand for 15 minutes with agitation engaged, then drain.

• Drain tank, then flush tank, boom and hoses with clean water for a minimum of 10 minutes.

• Nozzles, screens, filters, relief valves, dump lines, caps and taps at the end of spray lines, tank lids, flow meters, lines to pressure gauges, external tank indicators, induction hoppers, etc should be removed/pulled apart and cleaned separately. To remove traces of chlorine bleach, rinse the tank thoroughly with clean water and flush through hoses and boom.

CAUTION: DO NOT use chlorine bleach with ammonia.

DO NOT clean equipment in an enclosed area.

Rinse water should be discharged onto a designated disposal area or, if this is unavailable, onto unused land away from desirable plants and their roots and watercourses.

MINIMUM RECROPPING PERIODS following application in cereals and fallow

Crop Rotation Recommendations

Use of AC Ray 675 WG Herbicide may prevent early re-establishment of many crops including grasses after treatment. The period that residues persist in the soil will vary according to site conditions such as climate, soil pH, presence of soil microorganisms, soil temperature, soil moisture and the rate used. Breadkdown is fastest in warm, wet, acid soil and slower in cold, dry, alkaline conditions. Land previously treated with AC Ray 675 WG Herbicide should not be rotated to crops other than those listed in the table below. Tolerance of other crops (grown through to maturity) should be determined on a small scale before sowing into larger areas (see field bioassay in PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS section). The AC Ray 675 WG Herbicide

treated area may be replanted to any of the specified crops after the interval indicated in the following table:

Plantback Periods:
Users should be aware that there should be varietal differences in crop sensitivity and should seek the most recent data from the registrant.

Soil pH	Crops	Rainfall*	Plantback Periods
5.6-8.5	Wheat, Barley, Triticale	50-100 mm	4 months
	Canola	>300 mm	9 months
		<300 mm	20 months
	Faba Beans	All	20 months
8.6 and above	Tolerance of crops (grown through to maturity) should be determined on a small scale, in the previous season, before sowing to larger areas		
Rainfall – must be sufficient and of distribution to ensure soil wetting to 100 mm for longer than 1 week, for 4 month plantback time. For 9 month or longer plantback times, at least 300 mm must have fallen between treatment and desired replant time, with more than 100 mm of that over the warm months of summer to autumn to ensure soil wetting to depth of 100 mm for longer than 2 weeks.			

For winter crops such as chickpea, linseed, lucerne, medic, oats, safflower and subclover and for summer crops such as cotton, Japanese millet, maize, mung beans, panorama millet, sorghum, soybean, sunflower, and white French millet please consult Axichem Pty Ltd for advice on plantback periods.
See also PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS.