



Company Name: MACROFERTIL AUSTRALIA PTY LTD
Product Name: MACRO PROTECT ATRAZINE 900 WG HERBICIDE

APVMA Approval No: 58456/102565



Label Name:	MACRO PROTECT ATRAZINE 900 WG HERBICIDE
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	900 g/kg ATRAZINE
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Mode of Action:	GROUP C HERBICIDE
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Statement of Claims:	For selective annual grass and broadleaf weed control as per the Directions for Use Table.
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Net Contents:	10kg 15kg
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Restraints:	<p>RESTRAINTS:</p> <p>DO NOT use as a pre-emergent spray on light sandy soils.</p> <p>DO NOT use on weeds over 4 cm tall.</p> <p>DO NOT apply to waterlogged soil.</p> <p>DO NOT apply if heavy rains or storms that are likely to cause run off are forecast within two days of application.</p> <p>DO NOT irrigate to the point of run off for at least two days after application.</p> <p>DO NOT use a pre-emergence application in Sorghum, Broom Millet or Saccaline during the wet season in the northern irrigation areas of Western Australia.</p> <p>DO NOT apply product to any drainage line. Drainage lines show evidence of the action of periodically flowing water (for example, gravel, pebble, rock or sand bed, scour hole or nick point) and/or an incised channel at least 30cm deep.</p> <p>DO NOT handle, mix apply or conduct testing operations in areas susceptible to run-off where drainage results in rapid entry into waterways, particularly where no specific and effective action has been taken to prevent run-off into waterways. These areas may include areas mounded perpendicular to the contour, roads, access tracts, snig tracts and compacted log dumps.</p>
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	<p>TT CANOLA: DO NOT use or apply Macro Protect Atrazine 900 WG Herbicide post-emergence on raised beds or where furrows have been created in the soil for the purposes of holding or channelling water.</p> <p>SOIL MOISTURE The product requires rainfall or irrigation to move it down through the soil into the weed root zone to make it effective. Sufficient rain or irrigation to thoroughly wet the soil through the weed zone should occur or be made within 10 days after spraying.</p>
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Directions for Use:	<p>This section contains file attachment.</p> <p>File Name: DIRECTIONS FOR USE.pdf</p> <p>File Size: 136172 bytes</p>
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Withholding Periods:	<p>WITHHOLDING PERIODS:</p> <p>CANOLA: PRE-EMERGENT APPLICATION: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 15 WEEKS AFTER APPLICATION. POST-EMERGENT APPLICATION: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 6 WEEKS AFTER APPLICATION.</p> <p>GRAZING (EXCEPT CANOLA): DO NOT APPLY TO AREAS THAT WILL OR MAY BE GRAZED OR CUT FOR STOCK FOOD WITHIN 28 DAYS AFTER APPLICATION.</p> <p>HARVEST: OTHER CROPS: NOT REQUIRED WHEN USED AS DIRECTED.</p>
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General Instructions:	<p>This section contains file attachment.</p> <p>File Name: GENERAL INSTRUCTIONS.pdf</p> <p>File Size: 95986 bytes</p>
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Resistance Warning:	<p>Macro Protect Atrazine 900 WG Herbicide is a member of the triazines group of herbicides. Macro Protect Atrazine 900 WG Herbicide has the inhibitor of photosynthesis at photosystem II mode of action. For weed resistance management Macro Protect Atrazine 900 WG Herbicide is a Group C herbicide. Some naturally occurring weed biotypes resistant to Macro Protect Atrazine 900 WG Herbicide and other Group C 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 Macro Protect Atrazine 900 WG Herbicide or other Group C herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Macrofertil Pty Limited accepts no liability for any losses that may result from the failure of Macro Protect Atrazine 900 WG Herbicide to control resistant weeds. Any incidence of resistance must be reported to Macrofertil Pty Limited (Telephone 1800 649 122).</p>
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Precautions:	<p>PRECAUTION DO NOT dispense atrazine via dust prone methods e.g. hand operated cranking handles. Only use with applicators specifically designed to dispense granular products with minimum dust e.g. Weed-A-Metre granular dispenser, the Swissmex manual applicator, the Forest Mac applicator.</p> <p>RE-ENTRY PERIOD DO NOT enter treated areas without protective clothing until spray has dried.</p>
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Protections:	PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT
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DO NOT contaminate streams, rivers or waterways with the chemical or used containers. This product is very highly toxic to algae and aquatic macrophytes. DO NOT apply this product within 60m of natural or impounded lakes or dams. DO NOT use in channels or drains. DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause drift of this product or spray mix into adjacent areas, particularly wetlands, water bodies or watercourses.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions or from spraying equipment which may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures, particularly wetlands, water bodies or watercourses. DO NOT plant crops other than those recommended on this label for at least 6 months following treatments of this product at rates up to 1.4kg/ha and for 18 months following treatments of 1.4 to 3.3kg/ha. When rates exceed 3.3kg per hectare plantings may not be possible for very long periods afterwards.

Storage and Disposal:

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, well-ventilated locked area, as cool as possible out of direct sunlight and away from children, animals, food, feedstuffs, seed and fertilisers. Shake empty bag into spray tank. Single-rinse or shake remainder into spray tank/water/dip/drench, etc. Do not dispose of undiluted chemicals on site. 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:

SAFETY DIRECTIONS

Avoid contact with eyes and skin. Do not inhale dust or spray mist. When preparing the spray and using the prepared spray wear elbow length PVC gloves. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use wash gloves.

First Aid Instructions:

FIRST AID:

If poisoning occurs, contact a doctor or Poisons Information Centre (13 11 26).

First Aid Warnings:

DIRECTIONS FOR USE

Situation & Crop	Weeds Controlled	State	Rate per Hectare	Critical Comments
Canola - (Triazine Tolerant varieties only) Pre-emergence or post sowing pre emergence only	Capeweed, Charlock, Clover, Corn Gromwell, Doublegee, Fumitories, Geraniums, Ivy-leaf Speedwell, London Rocket, Mustards, Turnips, Paterson's Curse, Shepherd's Curse, Silver Grass (Vulpia). Suppression of Annual Ryegrass, Barley Grass, Brome Grass, Wild Oats and Wild Radish	All States	1.1 to 2.2kg	This use is subject to an <i>Integrated Weed Management Strategy</i> for the use of triazine herbicides in triazine tolerant (TT) canola. See General Instructions: <i>Integrated Weed Management Strategy for TT-canola</i>. Further information should be obtained from a Macrofert Representative before use of this product on TT canola. Can be applied up to a week before sowing or post- sowing pre-emergence (ideally Incorporated by harrows). For best results, apply to bare moist soil, either immediately before seeding or as a pre-emergence treatment at or within 7 days of planting. Sufficient rainfall (20-30 mm) to wet the soil through the weed root zone is necessary within 2-3 weeks of application. Application should not be made to ridged or excessively cloddy soil. When applied before seeding, incorporate to a depth of 5 cm.
Canola – (Triazine Tolerant varieties only) post-emergence application	Annual Ryegrass (1-2 leaf stage only), Mustards, Wild Radish, Turnips,	All States	555g to 1.1kg	This use is subject to an <i>Integrated Weed Management Strategy</i> for the use of triazine herbicides in triazine tolerant (TT) canola. See General Instructions: <i>Integrated Weed Management Strategy for TT-canola</i>. Further information should be obtained from a Macrofert Representative before use of this product on TT canola. Apply to moist soil when weeds are actively growing. The addition of 0.5 - 1% v/v of crop oil will enhance post emergence activity. Cold water: Under cold water conditions (10 deg C or less), use Hasten as a crop oil. DO NOT apply more than one post-emergence application.
Sorghum, Broom Millet, Saccaline and Forage Sorghum – Dryland	Amaranths, Annual Ground Cherry, Barnyard Grass, Blackberry Nightshade, Black Bindweed (Climbing Buckwheat), Bladder Ketmia, Burrs, Caltrop, Cobbler's Peg, Common Sowthistle, Common Thornapple, Crowsfoot Grass, Dwarf Marigold, Fat-hen, Love Grass, Mintweed, Parthenium Weed, Pigeon Grass, Pigweed, Plains Grass, Potato Weed, Prickly Paddy Melon, Sesbania Pea, Sunflower, Spring Grass, Summer Grasses, Wild Oats, Wireweed	All States	2kg	Pre-plant or Pre-emergent only: Use this technique where grasses are likely to be the major problem.
		All States	2kg followed by 1.3kg	Pre-plant or Pre-emergent followed by a Post-emergent application: Use this technique where long term weed control is required because of heavy rainfall or prolonged wet conditions following the initial application; or because dry weather follows sowing and spraying and weed and grass growth occurs.
		All States	2 - 2.5kg	Post-emergent only: Use the lower rate where only a broadleaf weed problem occurs and the higher rate where grasses are the major problem. Add a non-ionic surfactant.

Situation & Crop	Weeds Controlled	State	Rate per Hectare	Critical Comments
Sorghum, Broom Millet, Saccaline and Forage Sorghum – Irrigated	As above.	All States	1kg followed by 1.4 - 1.6kg	Pre-plant or Pre-emergence followed by a Post-emergence application (See General Instructions): Use the lower rate on medium textured soils and the higher rate where grasses are the major problem or on heavy soils.
	Black Bindweed (Climbing Buckwheat), Cobbler's Peg, Sesbania Pea, Sunflowers, Wild Oats	NSW, Vic, SA, WA only	2.5 - 3.3kg	Pre-or Post-emergent only (See General Instructions): Use the lower rate on light sandy soils, i.e. soils low in organic matter, and medium textured soils and the higher rate where grasses are the major problem or on heavy soils. DO NOT apply as a pre-emergent application to light sandy soils. Add anon-ionic surfactant to post-emergent applications. Note: Not recommended in the M.I.A.
Sorghum, Broom Millet, Saccaline and Forage Sorghum – Irrigated & Dryland	Black Pigweed, Mintweed	Qld only	1.3kg	Pre-plant, Pre-emergence or Post-emergent only: Apply when weeds are young (4-6 true leaves) and actively growing.
Maize & Sweet Corn – Irrigated & Dryland	Amaranths, Annual Ground Cherry, Barnyard Grass, Blackberry Nightshade, Black Bindweed (Climbing Buckwheat), Bladder Ketmia, Burrs, Caltrop, Cobbler's peg, Common Sowthistle, Common Thornapple, Crowsfoot Grass, Dwarf Marigold, Fat-hen, Love Grass, Mintweed, Parthenium Weed, Pigeon Grass, Pigweed, Plains Grass, Potato Weed, Prickly Paddy Melon, Spring Grass, Summer Grass, Sunflower, Wild Oats, Wireweed	All States	2.5 - 3.3kg	Pre-plant, Pre-emergence or Post-emergent application: Use the lower rate where broadleaf weeds are the major problem and the higher rate where grasses are the major problem or on heavy soils. Post-emergent application: Add 600g/L non-ionic surfactant (See Application).
Maize & Sorghum	Black Pigweed	Central Qld only	1.2kg 350g or 1.2kg	Pre-emergence. Post-emergence: Use lower rate for seedlings (2 true leaves). For plants up to 3cm in diameter use higher rate. Add non-ionic surfactant (See Application).
	Thornapple (Datura spp.) & other Broadleaf Weeds including Annual Ground Cherry, Bladder Ketmia, Caltrop, Bellvine, Mintweed, Noogoora Burr, Wild Gooseberry, Pigweed, Black Pigweed, Amaranthus spp., Sesbania Pea, Wandering Jew	Qld, NSW only	830g - 1.1kg plus 500 - 700mL Tordon 75-D	Use the lower rate when weeds are small and actively growing. Use the higher rate for larger weeds or when plants are not growing actively. Spray when the crop has 4-6 fully expanded leaves and secondary roots have developed. Do not add surfactants or crop oil. If rotating to Winter cereal crops do not apply this tank mixture within 6 months of the expected sowing date. For other crops or situations observe plant back information on the respective product labels.
Sorghum	Parthenium Weed	Qld only	3.3kg	Apply as a pre-emergent blanket spray. Add 150mL 900g/L non-ionic surfactant to each 100L spray.
	Black Pigweed, Sesbania Pea		1.1kg & 500mL 2,4-D Amine 500g/L	Post-emergence.

Situation & Crop	Weeds Controlled	State	Rate per Hectare	Critical Comments
Lucerne – established (more than one year Qld)	Mintweed	All States	600g	Apply when the first germination of mintweed seedlings are 5-8cm high and actively growing. Grazing prior to spraying improves efficiency. Do not graze for 14 days after spraying for maximum result. Using the low volume boom spray apply 140-170 litres spray mixture per hectare.
Sugarcane	Giant Sensitive Plant	Qld, WA only	2.2 – 3.3kg	Apply when soil is moist. Avoid spraying weeds under stress. Apply by ground rig only and obtain good cover of target weeds. Use high rates towards the higher end of the range where heavy soil or high trash levels are present. Use higher rates for grasses. Approximate period of weed control: 2.2kg - up to 4 weeks. 3.3kg - up to 10 weeks. A pre-emergent application is preferred for grasses. Control of emerging broadleaf weeds: Where plants are large or conditions dry, 1 litre of 2,4-D amine/ha should be added. If grasses are a problem this product should be applied prior to weed emergence. If emerged grasses are present add Paraquat 250 at 1.2to 1.7 L/ha.
	Barnyard Grasses, Blue Top, Borreria (Square weed), Budda Pea, Cobbler's-Pegs, Crowsfoot Grass, Flannel Weed, Paddy's Lucerne (Common sida), Pigweed, Sesbania, Sida Retusa, Spiny Spider Flower (Wild Rose), Stinking Passion Vine, Summer Grasses, Sweet Briar, Thickhead, Vines	Qld, WA and NSW only		
	Bellvine, African Star Grass, Barnyard Grass, Billygoat Weeds, Blue Top, Chinese Burr, Crowsfoot Grass, Cupid's Flower (Star of Bethlehem), Gambia Pea, Green Summer Grass, Mossman River Grass, Rattle Pods, Summer Grass,		3.3kg plus 4 litres of 500g/L Ametryn in sufficient water for thorough coverage.	Apply as a pre-emergent or early post-emergent application to both crop and weeds. If weeds and grasses are present at time of application, these should be actively growing and not exceed the 3-4 leaf stage. Aim to apply onto moist soil and when rain is likely to occur within 10 days of application. Application may be as either a band or blanket spray. When applying after the cane has emerged, use a directed spray to minimise contact of the spray with the cane plants. Refer to incorporation in general instructions Warning: Some phytotoxicity may be observed in Q90.
Lupins – Weed free Seedbed	Capeweed, Turnip, Wild Radish, Doublegee, Clovers and Medics, Mustard, Wireweed. Suppression of Annual Grass Weeds.	WA only	280 - 560g plus 500mL- 1 L Simazine Flowable (500g/L) or 280 - 560g Simazine 900g/kg	Apply to bare moist soil immediately before or at seeding. Application should not be made to ridged or excessively cloddy soil. Incorporation by the sowing operation should not exceed 5cm. Sufficient rainfall (20- 30mm) to wet the soil through the weed root zone is necessary within 2-3 weeks of application. Results can be variable if seasonal conditions are dry prior to sowing and lupins are sown into a dry or low moisture seedbed. Apply a maximum of 930g/ha of the mixture on yellow sands. Apply 1.2kg/ha on all other soil types. N.B. Some early crop phytotoxicity may be observed particularly on yellow sands carrying native pear and pine vegetation. Caution: Do not use on white or grey sands.
Eucalypt and Pine Plantations	Common Sowthistle, Mouse Eared Chickweed, Sand Brome, Silver Grass, Wild Oats, Yorkshire Fog Grass	All States	5 - 8.8kg	Pre-planting: Graze the area heavily and apply by boom spray or aircraft no more than two weeks before planting. Post-planting: Apply by boom spray either immediately after or within one month of planting. When applying by aircraft, the pines must be at least one month old. Application must be made before the Spring flush commences. Use rates towards the lower end of the range where broadleaf weeds are the major problem and rates towards the higher end of the range where grasses are the major problem. Use up to 8.8 kg per hectare on clay loams and heavy textured soils. For sandy soils and soils described as highly erodible, apply a maximum of 5kg per hectare. DO NOT apply with a knapsack sprayer.

Situation & Crop	Weeds Controlled	State	Rate per Hectare	Critical Comments
Pinus radiata Plantation	Wild Oats, Silver Grass, Rye Grass, Yorkshire Fog Grass, Sand Brome, Mouse-Ear Chickweed, Capeweed, Clovers, Sow Thistle Seedlings	Vic, SA, WA, Tas, NSW only	1.6 - 2.2kg plus 5.6 – 8L Amitrole T	Pre-planting or Post-planting: Spray to pine seedlings. Use the higher rate where grasses are a major problem. Preferably apply as a strip, rather than a blanket application. Method of application - refer application table.
Grass Seed Crops (Established stands of Sirocco, Phalaris, Demeter, Fescue, & Currie Cocksfoot) – Seedling Signal Grass & <i>Panicum maximum</i>	Brome Grass	All States	1.0 - 1.2kg	Apply after the Autumn break when Brome grass is just emerging. Apply by low volume boom spray.
	Broadleaf weeds, Brome Grasses, Crowsfoot Grass, Feathertop, Love Grass, Pigeon Grasses, Rhodes Grass, Setaria spp.	Qld only	2.5 - 3.3kg	Pre-emergent: Apply at or immediately after planting, preferably to a moist soil, and before crop and weeds germinate. Use the lower rate on <i>Panicum maximum</i> seed crops and the higher rate on Signal Grass when grasses are likely to be the major problem. Guinea Grass, Panics and Green Summer Grasses (<i>Bracharia</i> spp.) are not controlled. Warning – Damage can occur to <i>Panicum maximum</i> when application is made under cool, dry conditions. NOTE: When used in Signal Grass and <i>Panicum maximum</i> user accepts all responsibility should any damage occur.
Seedling Ryegrass, Seed Crops	Winter Grass, Toad Rush	Vic only	480 - 550g	Use the lower rate at 2-3 leaves and the higher rate at early tillering.
	Winter Grass, Toad Rush, Broadleaf Weeds		550g plus 500mL Macro Protect MCPA 500 Herbicide & 400mL Dicamba 500g/L	Use at the tillering stage.
Established Ryegrass Seed Crops	Winter Grass, Toad Rush, Loosestrife, Sorrel, Barley Grass, Docks, Soft Brome, Silver Grass	Vic only	830g - 1.1kg	Apply after good Autumn rains have fallen and conditions are becoming cooler: – around late May to mid-June. – graze heavily prior to application. Note: Some crop damage may occur on sandy soils – if crop water stressed then damage may occur. – Do not apply Nitrogen prior to spraying.
Fallow Area Maintenance (Prior to sowing Wheat, Peas, Lupins)	Broadleaf weeds and grasses	Vic only	650g-870g	Apply late July-mid September for May-June sowing. Use the higher rate for a 14 month fallow – apply in Feb/April before Autumn rains.
Maintenance of fallow areas prior to planting a Sorghum crop in a conservation tillage system	Amaranths, Annual Ground Cherry, Barnyard Grass, Black Bindweed (Climbing Buckwheat), Blackberry Nightshade, Bladder Ketmia, Burrs, Caltrop, Cobbler's Pegs, Common Thornapple, Crowsfoot Grass, Dwarf Marigold, Fat Hen, Love Grass, Mintweed, Parthenium Weed, Pigeon Grass, Pigweed, Plains Grass, Potato Weed, Prickly Paddy Melon, Sesbania Pea, Spring Grass, Summer Grass, Wireweed	Qld, NSW only	2 - 3.3kg	Pre-plant: Apply to moist soil or when rain is imminent and prior to the germination of weeds and grasses, or as a tank mixture with a specific knockdown herbicide if weeds and grasses are present. Use the lower rate when short-term control of weeds and grasses is required or where a wheat crop will follow sorghum in the rotation. Use the higher rate when longer-term control of weeds and grasses is required.
Roadside and Rights of Way	Parthenium Weed	Qld, NSW & NT only	3.3kg	Pre-and Post-emergent: Apply to moist soil, following germinating rains and when further follow up rain is imminent. Where germination has occurred, ensure application is made to seedling plants.

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

METHOD OF APPLICATION TABLE: *PINUS RADIATA* PLANTATIONS

Type of Application	Critical Comments
Pre-planting	Graze area heavily and apply the tank mixture no more than 2 weeks before planting.
Post-planting	Apply tank mixture either immediately after or within one month of planting. Application must be made before the spring commences. Avoid spraying the pine seedlings by using directed spray.

GENERAL INSTRUCTIONS

Macro Protect Atrazine 900 WG Herbicide is a pre and post emergent herbicide that controls weeds from seed and weed seedlings. However, established perennial species, large annuals, and large broadleaf weeds are not satisfactorily controlled at the rates recommended. It acts mainly through root absorption; its effectiveness depends on the occurrence of control rainfall or irrigation to move it down into the weed zone. Duration and effectiveness of control depends on the amount of chemical applied, soil type, rainfall and particular weed species.

The maximum rate of atrazine application in all crops except plantation forestry is limited to an amount of product equivalent to 3kg a.i. atrazine/ ha per year. DO NOT exceed this limit, especially when applying an atrazine herbicide post-emergence, where an atrazine herbicide has been applied pre-emergence.

The maximum rate of application in plantation forestry is an amount of product equivalent to 4.5kg a.i. atrazine per year in sandy soils and those defined as highly erodible, and product equivalent to 8kg a.i. atrazine/ha per year in clay loam and heavier textured soils.

INTEGRATED WEED MANAGEMENT STRATEGY FOR TT CANOLA

The use of this product in TT canola is subject to an Integrated Weed Management Strategy for the use of triazine herbicides in TT canola. The Strategy encompasses:

- Integrated Weed Management;
- The specific management of crop plant volunteers and outcrossing to other plants; and
- Triazine herbicide residue management (agronomic and environment).

Compliance with registered label directions and adoption of the principles outlined in the Strategy will assist with implementation of crop management practices that *minimise* the development of herbicide resistance in treated weeds; *reduce* the levels of triazine residues in the environment; and *manage* volunteer plants and outcrossing.

Copies of the Strategy are available from your Macrofertil representative. It is advised that consultation be undertaken with an appropriate agronomist, consultant or Department adviser prior to the use of Atrazine Flowable Herbicide on TT canola.

To minimise herbicide resistance:

- Avoid dry sowing in heavily weed infested paddocks. Wait for a weed germination after the opening rains in weedy paddocks. Use a pre-plant knockdown or cultivation. No weeds should be allowed to survive at this stage.
- Adapt the weed control program to the anticipated weed spectrum and pressure:

Broadleaf Weeds and Ryegrass:

- Use Simazine 900g/kg or Macro Protect Atrazine 900 WG Herbicide plus trifluralin pre-emergence. A follow-up with a Group A herbicide (if ryegrass is susceptible) or Macro Protect Atrazine 900 WG Herbicide may be necessary.

Broadleaf Weeds only:

- Use Macro Protect Atrazine 900 WG Herbicide post-emergence.
- DO NOT use atrazine or simazine if the area to be treated had a triazine herbicide applied to it last season.
- Watch for escapes, especially in paddocks with a long history of Group C herbicide use.

- DO NOT use Group C herbicides in consecutive years.

Resistant Weeds Reporting

Growers should collect plant or seed samples where weeds that are normally susceptible to atrazine and simazine may be resistant, get them tested and seek professional advice.

To avoid Triazine carry-over:

On acid soils (pH less than 6.5) – The maximum rate of Macro Protect Atrazine 900 WG Herbicide or Simazine 900g/kg or a combination of the two products to be applied to the crop during the growing season is 2.2kg/ha.

On alkaline soils (pH greater than 6.5) – The maximum rate of Macro Protect Atrazine 900 WG Herbicide or Simazine 900g/kg or a combination of the two products to be applied to the crop during the growing season is 1.1kg/ha.

Post-emergence use – It is recommended that Macro Protect Atrazine 900 WG Herbicide only be used, and at rates of 1.1kg/ha or less, on both acid and alkaline soils.

Mixing

DO NOT mix, load or apply within 20m of any well, sink hole or intermittent or perennial stream or river. This product readily mixes with water. Add required quantity to the spray vat with the tank filter mesh removed and the vat 50 to 75% full with water. The agitation system should be running during addition of the product and during the spraying operation. If left to settle, stir and re-suspend any settled material before starting pump and spraying product. Avoid drawing accumulated particles into outlet pipe. DO NOT pre-mix in a bucket as a paste.

Wetting Agent: Add 600g/L non-ionic surfactant at 125 mL/100L or 1000g/L non-ionic surfactant at 75 mL/100L of spray mixture when applying to emerged weeds as a foliar spray.

Incorporation (Pre-plant and at sowing application)

This product acts mainly by root absorption. Its effectiveness depends on the occurrence of rainfall or irrigation to move it down into the weed root zone. Sufficient rain or irrigation to thoroughly wet the soil through the weed root zone should occur or be made immediately after application to provide appropriate weed control. Delay in activation of the product may result in some weed growth.

In flood or furrow irrigation situations complete and continued activation of the product may not occur due to a thin band of dry soil on the surface during or after irrigation. Mechanical incorporation after application, using light harrows to incorporate the product into the soil not more than 4cm deep is required to ensure the irrigation water activates the product.

Always apply the product to an even unridged seedbed.

METHOD OF APPLICATION

Minimum volumes of spray mixture per hectare:

	Pre-plant/pre-emergence application	Post-emergence application	Note
By Aircraft	15L	22L	With aircraft application the need for good soil moisture at the time of application and follow up rain or irrigation within 10 days is most critical. DO NOT use human flaggers in aerial spraying, unless protected by engineering controls such as enclosed cabs.
By low volume boom	55L	110L	Application can be made as an overall or band treatment. Minimum bandwidth should be 30cm.

TT Canola:

DO NOT apply to TT-canola by aircraft. Apply only with a low boom sprayer with a 60m buffer zone downwind of treated fields to natural or impounded lakes or dams, and a 20m buffer zone for any well, sink hole, intermittent or perennial stream. Apply only to areas where run-off is unlikely to occur or where run-off may be captured by farm earthworks.

Summer Crops

Heavy rains immediately following an application tend to result in excessive concentrations of herbicide in the seed furrow, thus encouraging possible crop injury. This is most likely to occur when a pre-plant or pre-emergence application is made using rates in excess of 2kg per hectare. To avoid the likelihood of herbicide injury follow time of application (a), (b) or (d) listed below.

Time of application**(SORGHUM, MAIZE, BROOM MILLET, SACCALINE, SWEET CORN)****(a) PRE-PLANT APPLICATION – FOLLOWED BY A POST-EMERGENCE APPLICATION**

Apply after establishment of the seed bed and up to two weeks prior to sowing. If using this technique on irrigated crops, application should preferably be made to moist soil. If applied to dry soil, lightly harrow to incorporate Atrazine 900 WG into the soil not more than 4cm deep. A post-emergence spray must be applied as soon as possible after the crop has emerged and developed 2 to 3 leaves.

(b) PRE-EMERGENCE APPLICATION – FOLLOWED BY A POST-EMERGENCE APPLICATION.

Apply at or immediately after planting and before crop and weeds emerge. Application should preferably be made to moist soil. If applied to dry soil, lightly harrow to incorporate Atrazine 900 WG into the soil not more than 4cm deep. If using this technique on irrigated crops, then a post-emergence spray must be applied as soon as possible after the crop has emerged and developed 2 to 3 leaves.

(c) PRE-EMERGENCE APPLICATION

Apply at or immediately after planting and before crop and weeds emerge. Application should preferably be made to moist soil. **NOTE:** Applying the total amount of this product as a pre-emergence application increases the risk outlined in Crop Safety – Summer Crops, below.

(d) POST-EMERGENCE APPLICATION

Application must be made to seedling broadleaf weeds and grasses when they are not more than 1 cm high. Normally the crop is then at the 2 to 3 leaf stage. For best results the soil should be moist and rain or irrigation should follow the application. If applied to dry soil, lightly harrow to incorporate Macro Protect Atrazine 900WG Herbicide into the soil not more than 4cm deep. Add 600g/L non-ionic surfactant at the rate of 125 mL/100L or 1000g/L non-ionic surfactant at the rate 75 ml/100L of spray, for all post-emergence applications, or in sweet corn/maize 5.5L crop oil/ha. **NOTE:** Should weeds develop after pre-plant or pre-emergence application, a shallow cultivation may assist the control. Avoid deep cultivation which may throw untreated soil over the sprayed areas as this may seriously reduce weed control.

Crop Safety – Summer crops**Sorghum, Broom millet, Saccaline:**

Heavy rains immediately following an application tend to result in excessive concentrations of herbicide in the seed furrow, thus encouraging possible crop injury. This is most likely to occur when a pre-plant or pre-emergence application is made using rates in excess of 2kg/ha. To avoid the likelihood of herbicide injury use technique (a), (b) or (d) (See Time of application). In the northern irrigation areas of Western Australia, do not use as a pre-emergence application during wet season.

Maize, Sweetcorn, Sorghum, Broom millet, Saccaline:

When sowing is made on the 'flat', avoid application to ridged soil. **NOTE:** Pre-plant or pre-emergence applications are preferred where grasses are the major problem.

Warning: When used in Signal grass and *Panicum maximum*, application of this product may cause damage and the user accepts all responsibility should any damage occur to the crop.