

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

Rygel

Metolachlor 720 EC Herbicide

Active Constituent: 720 g/L METOLACHLOR

For the control of certain annual grasses and broadleaf weeds in certain crops.

GROUP	K	HERBICIDE
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APVMA Approval No: 64277/0909

Pack Size: 20L, 110L, 120L, 200L, 1000L

GENERAL INSTRUCTIONS

Rygel Metolachlor 720 EC Herbicide is a short residual, pre-emergent herbicide for the control of many important annual grasses and broadleaf weeds in the crops nominated. The product does not control the important broadleaf weeds in maize, sweet corn and Concep II treated sorghum, but when mixed with Atrazine 500 Herbicide control of many important annual weeds and grasses is obtained without the problem of carryover of herbicides affecting succeeding crops. The product acts mainly through shoot (coleoptile) absorption. Its effectiveness depends on the occurrence of rainfall or irrigation to move it down into the top 3 to 4 cm of soil, where it must be present at the time of weed germination.

RESISTANT WEEDS WARNING

Rygel Metolachlor 720 EC Herbicide is a member of the amide group of herbicides with diverse sites of action. For weed resistance management this is a Group K herbicide. Some naturally occurring weed biotypes resistant to Rygel Metolachlor 720 EC Herbicide and other Group K 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 Rygel Metolachlor 720 EC Herbicide or other Group K herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Rygel Australia accepts no liability for any losses that may result from the failure of Rygel Metolachlor 720 EC Herbicide to control the resistant weeds.

MIXING

Add the required amount directly to the spray tank, fill with water and mix well.

COMPATIBILITY

Rygel Metolachlor 720 EC Herbicide is compatible with Atrazine 500 Herbicide, glyphosate 360 and 450 herbicides and paraquat +diquat.

Warning - Cotton: Heavy rain following an application of Rygel Metolachlor 720 EC Herbicide, together with below average soil temperatures, can

result in crop injury, due to the inability of the germinating plant being able to metabolise the herbicide. Rygel Metolachlor 720 EC Herbicide should not be used in situations where these conditions are likely to occur.

Warning - Brassica Crops: Crop retardation may occur where Rygel Metolachlor 720 EC Herbicide is used on soils that have a low organic matter content and which contain more than 60% of fine sand and silt. On these soil types, use rates of Rygel Metolachlor 720 EC Herbicide towards the lower end of the rate range and apply onto moist soil. Irrigation after application should be limited to no more than 25mm. DO NOT use more than once per year.

Re-entry Period

DO NOT enter treated area until spray has dried.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT plant crops other than maize, sweet corn, tobacco, cotton, soybeans, sunflowers, peanuts, broccoli, Brussels sprouts, cabbages, cauliflowers or Concep II treated sorghum within 6 months of application of Rygel Metolachlor 720 EC Herbicide.

PROTECTION OF LIVESTOCK

DO NOT graze or cut sweet potato leaves for stock food.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways 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 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, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below

500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should 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

Avoid contact with eyes and skin. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre, Phone Australia: 13 11 26.

MATERIAL SAFETY DATA SHEET

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

CONDITIONS OF SALE

The use of Rygel Metolachlor 720 EC Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Rygel Australia Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Rygel Australia Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

In an Emergency Dial 000 Police or Fire Brigade

DIRECTIONS FOR USE

CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
Broccoli, Brussels sprouts, Cabbages, Cauliflowers	Barnyard Grass, Blackberry Nightshade, Chickweed (suppression), Deadnettle, Fat-hen, Lovegrass, Pigeon Grass, Pigweed (suppression), Potato Weed, Shepherds Purse, Stinging Nettle, Summer Grass, Wireweed (suppression)	NSW, ACT, Vic, Qld, Tas, NT only	3 to 4 L/ha	Apply immediately after transplanting. Sufficient irrigation to wet the top 3 to 4cm of soil should be applied within 24 hours. Use rates towards the higher end of the range where Blackberry Nightshade, Chickweed, Fat-hen, Lovegrass, Pigeon Grass, Pigweed, Potato Weed and Wireweed are the major problem. See Warning - Brassica crops.
	Crowsfoot Grass, Fierce Thornapple (suppression), Liverseed Grass, Winter Grass	NSW, ACT only		Apply immediately after transplanting. Sufficient irrigation to wet the top 3 to 4cm of soil should be applied within 24 hours. Use rates towards the higher end of the range where Apple of Peru, Common Sowthistle, Fierce Thornapple, Liverseed Grass, Redroot Amaranth, Twiggy Turnip and Nettleleaf Goosefoot are the major problems. WARNING: Qld. only stunting and reduced yield may occur in broccoli in red soils and light alluvial soils. See Warning - Brassica crops.
	Apple of Peru, Awnless Barnyard Grass, Fierce Thornapple (suppression), Liverseed Grass, Yellow Weed, Redroot Amaranth (suppression).	Qld only		
	Annual Ryegrass, Common Cotula, Common Sowthistle (suppression), Crowsfoot Grass, Fiddle Dock, Italian Ryegrass, Liverseed Grass, Nettleleaf Goosefoot (suppression), Twiggy Turnip (suppression), Winter Grass	Vic, Tas, WA only		
Canola	Toad Rush	NSW, ACT, SA, Vic, Tas, Qld and WA only	0.3 to 0.5 L/ha	Apply at or immediately after planting and before crops and weeds emerge. Apply to moist soil. Use rates towards the higher end of the range where longer residual control is required.
Cotton	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrass, Pigeon Grass, Summer Grass, Wandering Jew	NSW, ACT, Qld only	2 L/ha	Pre-emergent: Apply before, at, or immediately after planting and before crops and weeds have germinated using a low volume boom sprayer applying 60 to 120 litres of mixture per hectare. Rain or irrigation is necessary within 10 days of spraying to thoroughly wet the top 3 to 4cm of soil. If rain does not occur or irrigation is unavailable, incorporate chemical to a depth of 3 to 4cm. Use rates towards the higher end of the range on heavy soils or where a heavy grass population is expected. DO NOT throw untreated soil onto treated areas, as this will reduce weed control. DO NOT use on soils where the sand content exceeds 70%. Use lower rate where sand content of the soil is within the range 50% to 70%. See Warning - Cotton.
Green Beans, Navy Beans	Blackberry Nightshade, Common Sowthistle, Fat- hen, Potato Weed, Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrass, Pigeon Grass, Summer Grass and suppression of Pigweed.	NSW, ACT, Qld, Vic, SA only	3 to 4 L/ha	Pre-emergent: Apply before, at, or immediately after planting and before crops and weeds have germinated. Rain or irrigation is necessary within 10 days of spraying to thoroughly wet the top 3 to 4cm of soil. If rain does not occur or irrigation is unavailable, incorporate chemical to a depth of 3 to 4cm. DO NOT throw untreated soil onto treated

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	Powell's Amaranth	Tas only	4 L/ha	Pre-emergent: Apply before, at, or immediately after planting and before crops and weeds have germinated. For sufficient Amaranth control, the Rygel Metolachlor 720 EC application should be followed by 1 L/ha Basagran* (2-leaf Amaranth) plus 2L/ha Basagran* (4-leaf Amaranth). Rain or irrigation is necessary within 10 days of spraying to thoroughly wet the top 3 to 4cm of soil. If rain does not occur or irrigation is unavailable, incorporate chemical to a depth of 3 to 4cm. DO NOT throw untreated soil onto treated areas, as this will reduce weed control.
Maize (not Waxy Maize), Sweet Corn	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrass, Pigeon Grass, Summer Grass, Wandering Jew	NSW, ACT, Vic, Qld, SA, NT, Tas only	2 to 4 L/ha	Pre-emergent: Apply before, at, or immediately after planting and before crops and weeds have germinated using a low volume boom sprayer applying 60 to 120 litres of mixture per hectare. Rain or irrigation is necessary within 10 days of spraying to thoroughly wet the top 3 to 4cm of soil. If rain does not occur or irrigation is unavailable, incorporate chemical to a depth of 3 to 4cm. Use rates towards the higher end of the range on heavy soils or where a heavy grass population is expected. DO NOT throw untreated soil onto treated areas, as this will reduce weed control. DO NOT use on soils where the sand content exceeds 70%. Use lower rate where the sand content of the soil is within the range of 50% to 70%.
	Blackberry Nightshade, Caltrop, Common Thornapple, Mintweed, Needle Burr, Noogoora Burr, Pigweed, Redroot Amaranth, Slim Amaranth		2 to 4 L plus 2.5 L of Atrazine (500 g/L) per ha	
Pastures - Trikkala subclover, Haifa White clover, Maral Persian clover, Paradana Balansa clover, Redquin Red clover, Phalaris and Cocksfoot	Toad Rush	Vic, NSW, ACT, NT, SA, WA only	400 to 500 mL/ha	Apply at or immediately after planting and before pasture species and weeds emerge. Application should be made to a moist seedbed. Sufficient rain to thoroughly wet the top 3 to 4cm of soil should occur within 10 days of spraying. Use rates towards the higher end of the range in wet areas or when longer residual control is required. DO NOT use in soils where prolonged waterlogging is anticipated, otherwise unacceptable crop retardation will occur. Avoid damage to pasture species by avoiding overlaps and double spraying in headlands where White, Persian and Balansa clovers are sown if the 500 mL rate is being used.
Peanuts	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Love Grass, Pigeon Grass, Summer Grass, Wandering Jew	Qld, NSW, ACT, NT only	2 to 4L/ha	Apply pre-irrigation where soil crusting is likely. Apply before, at or immediately after planting and before weeds germinate. Rain or irrigation is necessary within 10 days of spraying to thoroughly wet the top 3 to 4 cm of soil. If rain does not occur or irrigation is unavailable, incorporate chemical to a depth of 3 to 4cm. DO NOT throw untreated soil onto treated areas as this will reduce weed control. Use rate toward the higher end of the range on heavy soils or where a heavy grass population is expected.
Soybeans, Sunflowers		NSW, ACT, Vic, Qld, SA, NT only		

CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
Sorghum treated with Concep II Sorghum Seed Safener	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrass, Pigeon Grass, Summer Grass, Wandering Jew	NSW, ACT, NT, Qld only	2 to 4L/ha	Pre-emergent: Apply before, at or immediately after planting and before crops and weeds have germinated using a low volume boom sprayer applying 60 to 120 litres of mixture per hectare. DO NOT apply to sorghum seed not previously treated with Concep II Sorghum Seed Safener. Rain or irrigation is necessary within 10 days of spraying to thoroughly wet the top 3 to 4 cm of soil. If rain does not occur or irrigation is unavailable, incorporate chemical to a depth of 3 to 4cm. DO NOT throw untreated soil onto treated areas as this will reduce weed control. Use rate toward the higher end of the range on heavy soils or where a heavy grass population is expected. Use the lower rate on sandy soils.
	Blackberry Nightshade, Caltrop, Common Thornapple, Mintweed, Needle Burr, Noogoora Burr, Pigweed, Redroot Amaranth, Slim Amaranth		2 to 4L/ha plus 2.5L of Atrazine (500 g/L) per ha	
Sweet Potatoes	Black pigweed, Red Shank, Potato Weed, Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrasses, Pigeon Grass, Summer Grass, Suppression of Evening Primrose	NSW, ACT, Qld, Vic, NT, SA only	3L/ha	Pre-emergent: Apply immediately after transplanting before weeds have germinated. Sufficient irrigation to wet the soil through the weed zone should be applied within 24 hours. Further weed germination may occur following re-hilling due to exposure of untreated soil.
Tobacco (transplanted in field)	Barnyard Grass, Lovegrass, Pigeon Grass, Summer Grass and suppression of Common Thornapple (<i>Datura stramonium</i>) and Nightshades (<i>Solanum sarrachoides</i> and <i>S. nigrum</i>)	Vic, NSW, ACT only	3 L/ha	Apply by low volume boom spray prior to transplanting and before weeds and grasses germinate. The seedbed should be fine and free of large clods. Thoroughly incorporate within 7 days of spraying using a rotary hoe or similar equipment set to work to a depth of 7.5cm. DO NOT use disc-cultivating implements. An even coverage of the herbicide is essential. The herbicide needs to be activated by moisture through to the top 3 to 4cm of soil at the time of application or within 4 days of incorporation. This can be achieved by applying to moist soil, irrigating soon after incorporation or irrigating immediately after transplanting. Avoid boom overlaps as double treatment may cause growth suppression. Temporary crop retardation may be observed when soil conditions remain dry after application or where black root rot may occur.
Wheat, Barley, Oats, Triticale	Toad Rush	Vic, NSW, ACT, SA, WA only	300 to 500 mL/ha	Apply at or immediately after planting and before crop and weeds emerge. Application should be made to a moist seedbed and sufficient rain to thoroughly wet the top 3 to 4cm of soil should occur within 10 days after spraying. Use rates towards the higher end of the range in wet areas or when longer residual control is required or in situations where crop competition is minimal. When mixed with Triasulfuron formulations, apply pre-sowing and incorporate by sowing operation (for wheat only).

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

WITHHOLDING PERIOD:

CANOLA: DO NOT GRAZE TREATED FIELDS FOR 10 WEEKS AFTER APPLICATION.
GREEN BEANS: DO NOT HARVEST, GRAZE OR CUT FOR STOCK FOOD FOR 10 WEEKS AFTER APPLICATION.
PASTURES: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 13 WEEKS AFTER APPLICATION.
SWEET POTATOES: DO NOT HARVEST, GRAZE OR CUT FOR STOCK FOOD FOR 23 WEEKS AFTER APPLICATION.