

Product Name: RAINBOW METOLACHLOR 720 EC HERBICIDE  
APVMA Approval No: 65863 / 127939



Label Name:	RAINBOW METOLACHLOR 720 EC HERBICIDE
Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	720 g/L METOLACHLOR
Mode of Action:	GROUP <b>K</b> HERBICIDE
Statement of Claims:	For the control of certain annual grasses and broadleaf weeds in certain crops as specified in the Directions for Use table.
Net Contents:	1000L 100L 110L 200L 20L 5L
Restrains:	
Directions for Use:	
Other Limitations:	
Withholding Periods:	HARVEST

	<p>Green Beans, Navy Beans: DO NOT HARVEST FOR AT LEAST 8 WEEKS AFTER APPLICATION.</p> <p>Spinach and Silverbeet: NOT REQUIRED WHEN USED AS DIRECTED.</p> <p>Sweet Potatoes: DO NOT HARVEST FOR 23 WEEKS AFTER APPLICATION.</p> <p>Spring Onions and Shallots: NOT REQUIRED WHEN USED AS DIRECTED.</p> <p>Adzuki beans and mung beans: NOT REQUIRED WHEN USED AS DIRECTED</p> <p><b>GRAZING</b></p> <p>Canola, Mustard: DO NOT GRAZE TREATED FIELDS FOR 10 WEEKS AFTER APPLICATION.</p> <p>Green Beans, Navy Beans: DO NOT GRAZE OR CUT FOR STOCK FEED FOR AT LEAST 10 WEEKS AFTER APPLICATION.</p> <p>Pastures: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 13 WEEKS AFTER APPLICATION.</p> <p>Spinach and Silverbeet: DO NOT GRAZE OR USE FOR STOCKFEED FOR 8 WEEKS AFTER APPLICATION.</p> <p>Sweet Potatoes: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 23 WEEKS AFTER APPLICATION.</p> <p>Adzuki beans and mung beans: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 13 WEEKS AFTER APPLICATION.</p> <p>Tea Tree: DO NOT GRAZE TREATED AREAS OR CUT TREATED AREA FOR STOCK FEED.</p>
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Trade Advice:	<p>Export of treated produce:</p> <p>Growers should note that maximum residue limits (MRLs) or import tolerances may not exist in all markets for edible produce treated with this product. If you are growing edible produce for export, please check with Shandong Rainbow International Co., Ltd for the latest information on MRLs and import tolerances before using this product.</p>
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General Instructions:	
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Resistance Warning:	<p><b>GROUP K HERBICIDE</b></p> <p>Rainbow Metolachlor 720 EC Herbicide is a member of the Chloroacetamides Inhibitors of cell division / Inhibitors of very long chain fatty acids (VLCFA inhibitors) group of herbicides. For weed resistance management Rainbow Metolachlor 720 EC Herbicide is a Group K Herbicide. Some naturally occurring weed biotypes resistant to Rainbow 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 Rainbow Metolachlor 720 EC Herbicide or Group K other herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Shandong Rainbow International Co., Ltd accepts no liability for any losses that may result from the failure of Rainbow Metolachlor 720 EC Herbicide to control resistant weeds. Advice as to strategies and alternative treatments that can be used should be obtained from your local supplier, consultant, local Department of Agriculture, Primary Industries Department or Shandong Rainbow International Co., Ltd.</p>
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Precautions:	<p><b>PRECAUTION</b></p> <p><b>RE-ENTRY PERIOD</b></p> <p>DO NOT enter treated areas until spray has dried.</p>
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Protections:	<p><b>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</b> 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 Rainbow Metolachlor 720 EC Herbicide.</p> <p><b>PROTECTION OF LIVESTOCK</b> DO NOT graze or cut sweet potato leaves for stock food.</p> <p><b>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</b> DO NOT contaminate streams, rivers or waterways with the chemical or used containers.</p>
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Storage and Disposal:	<p>Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.</p> <p>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.</p> <p>If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal 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.</p> <p>Refillable containers Empty contents fully into application equipment. Close all valves and return to pint of supply for refill or storage.</p>
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Safety Directions:	<p>Harmful if inhaled. Will irritate the eyes. Repeated exposure may cause allergic disorders. Avoid contact with eyes. Do not inhale spray mist. When opening the container, preparing product for use and using the prepared spray, wear elbow-length chemical resistant gloves, goggles, disposable mist face mask covering mouth and nose. In addition, if applying by spraying equipment carried on the back of the user wear cotton overalls, over normal clothing, buttoned to the neck and wrist. If product or spray in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.</p>
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First Aid Instructions:	<p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126, New Zealand 0800 764 766.</p>
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First Aid Warnings:	
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## GENERAL INSTRUCTIONS

Rainbow 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 500g/L 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 4cm of soil, where it must be present at the time of weed germination.

## APPLICATION

**Ground Application** – Apply in a minimum 60L/ha of water. DO NOT apply by aircraft.

### To Avoid Crop Damage

As metolachlor is known to cause some crop damage in sandy-sandy loam soils with low organic matter, it is recommended that growers test the safety of metolachlor on a small area of their crop before using the product on larger areas. If any adverse crop symptoms are observed within 14 days of application in which irrigation or rainfall has occurred, then the product should not be used.

## MIXING

Fill the spray tank to one quarter full. Then add Rainbow Metolachlor 720 EC Herbicide while adding water to make up the final spray volume. Pour Rainbow Metolachlor 720 EC Herbicide into the stream of incoming water. Good agitation at the time Rainbow Metolachlor 720 EC Herbicide is added to the tank will ensure good mixing.

When Tank Mixing: Wettable powder or water dispersible granule formulations should be added to the tank first, followed by suspension concentrates (flowables), water soluble salts then Rainbow Metolachlor 720 EC Herbicide or other emulsifiable concentrate formulations. Maintain thorough agitation during mixing and application. Agitate tank mixes vigorously if allowed to stand. NOTE: Tank mix spray solution should NOT be left standing in the vat overnight.

## COMPATIBILITY

Rainbow Metolachlor 720 EC Herbicide is compatible with prometryn/fluometuron (250g/L), Flumeturon (500g/L), Prometryn (500g/L), Atrazine (500g/L and 900 g/kg), Triasulfuron (750g/Kg), Basagran, Paraquat (250g/L), Glyphosate.

**Warning — Cotton:** DO NOT use when planting into dry soil or soil with marginal moisture. Under dry planting conditions heavy rain or flood irrigation soon after planting, together with below average soil temperatures, can result in crop injury, due to the inability of the germinating seedling to metabolise above normal amounts of the herbicide that may accumulate in the root zone as a result of accelerated capillary movement. Rainbow 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 Rainbow 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 and less than 5% clay in the top 30cm. On these soil types, use rates of Rainbow 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.

**Zero-tillage (Canola, Barley, Oats, Wheat, Triticale):** When sowing using knife points and zero-tillage and leaving a seeding slot. DO NOT apply post-seeding unless harrows (or similar) have tilled-in the seeding slot before application. Alternatively, apply Rainbow Metolachlor 720 EC Herbicide immediately before sowing,

## DIRECTIONS FOR USE

CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
Adzuki beans and mung beans	Barnyard grass, Liverseed grass, Summer grass, Common sow thistle, Blackberry nightshade, Fat hen and other pest weeds as listed for broccoli (see below)	All States	3 to 4 L/ha	Apply one application only using calibrated ground boom spray or similar equipment. Apply before, at or immediately after planting and before crops and weeds have germinated. Use lower rates on soils with high sand and silt content, or low in organic matter. Apply in a minimum spray volume of 60 L/ha of water. 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 4 cm. DO NOT throw untreated soil onto treated areas, as this will reduce weed control. The sensitivity of some species and varieties of the crops to be treated has not been fully evaluated. It is advisable to only treat a small number of plants to ascertain their reaction before treating the whole crop.
Barley, Oats, Triticale, Wheat	Toad Rush	NSW, ACT, Vic, 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 4 cm 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 a Triasulfuron formulations apply pre-sowing and incorporate by sowing operation (for Wheat only).
Broccoli, Brussels Sprouts, Cabbages, Cauliflowers	Barnyard Grass, Blackberry Nightshade, Chickweed (suppression), Deadnettle, Fat Hen, Lovegrass, Pigeon Grass, Pigweed (suppression), Potato Weed, Shepherd's Purse, Stinging Nettle, Summer Grass, Wireweed (suppression)	Qld, NSW, ACT, Vic, Tas, NT only	3 to 4 L/ha	Apply immediately after transplanting. Sufficient irrigation to wet the top 3 to 4 cm 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. <b>See General Instructions for Warning — Brassica crops.</b>
	Crowsfoot Grass, Fierce Thornapple (suppression), Liverseed Grass, Winter Grass	NSW, ACT only		Apply immediately after transplanting. Sufficient irrigation to wet the top 3 to 4 cm 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, Twigg Turnip and Nettleleaf Goosefoot are the major problems. <b>Warning:</b> Qld only - stunting and reduced yield may occur in broccoli in red soils and light alluvial soils. <b>See General Instructions for Warning — Brassica crops.</b>
	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), Twigg Turnip (suppression), Winter Grass	Vic, Tas, WA only		

CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
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 weed emerge. Apply to moist soil. Use rates towards the higher end of the range where longer residual control is required.
Canola and mustard (oilseed cultivars) ( <i>Brassica juncea</i> )				
Cotton	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrass, Pigeon Grass, Summer Grass, Wandering Jew	Qld, NSW, ACT only	2L/ha	<b>Pre-emergent:</b> Apply before, at, or immediately after planting and before crops and weeds have germinated using a low volume boom sprayer applying 60 to 120 L of mixture per hectare. 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 4 cm. 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 50% to 70%. <b>See General Instructions for Warning — Cotton.</b>
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	All States	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 4 cm of soil. If rain does not occur or irrigation is unavailable incorporate chemical to a depth of 3 to 4 cm. Do not use on soils where the sand content exceeds 70%. Use lower rate where the sand content is within the range 50% to 70%.
	Powell's Amaranth	Tas only	4L/ha	<b>Pre-emergent:</b> Apply before, at, or immediately after planting and before crops and weeds have germinated. For sufficient Amaranth control the Rainbow Metolachlor 720 EC Herbicide application should be followed by 1L/ha Basagran* (2 leaf Amaranth) or 2 L/ha Basagran (4 leaf Amaranth). 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 4 cm. 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	All States	2 to 4L/ha	<b>Pre-emergent:</b> Apply before, at, or immediately after planting and before crops and weeds have germinated using a low volume boom sprayer applying 60 to 120 L of mixture per hectare. 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 4 cm. 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 50% to 70%.
	Blackberry Nightshade, Caltrop, Common Thornapple, Mintweed Needle Burr, Noogoora Burr, Pigweed, Redroot Amaranth, Slim Amaranth		2 to 4L plus 2.5 L of Flowable Atrazine (500 g/L) Flowable per ha	

CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
Oil Tea Tree Pre-plant only	Germinating Broadleaf Weeds, Grasses, Sedges and Rushes	All States	2 to 4L/ha in a tank mix with either 3 to 4L/ha of Simazine (500g/L) Or 1.5 to 2.2kg/ha Simazine (900g/kg)	Apply to moist soil as a spray using a low volume boom applying 60-120L of water/ha. The seed bed should be free of clods and trash. Rain or irrigation is necessary within 10 days of spraying to thoroughly wet the top 3-4cm of soil. Avoid excessive disturbance of the treated zone at transplanting, as this reduces weed control. DO NOT apply over the top of tea trees, otherwise significant damage will result.
Oil Tea Tree	Annual Weeds		2 to 4 L/ha plus 2 to 4L/ha of Simazine (500g/L) Or 1.1 to 1.6 kg/ha Simazine (900g/kg)	Apply post-harvest to stumps prior to budburst using a boom sprayer. DO NOT apply more than 1 application per product per season. Ensure there is no residual foliage at the time of application. Use lower rates on lighter soil types.
Pastures - Trikkala Sub-Clover, Haifa White Clover, Maral Persian Clover, Paradana Balansa Clover, Redquin Red Clover, Phalaris and Cocksfoot	Toad Rush	NSW, Vic, ACT, SA, WA, NT 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 seed bed. Sufficient rain to thoroughly wet the top 3 to 4 cm 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. 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 and if the 375 mL rate is being used.
Peanuts	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrass, Pigeon Grass, Summer Grass, Wandering Jew	Qld, NSW, ACT, NT only	2 to 4 L/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 4 cm. DO NOT throw untreated soil onto treated areas as this will reduce weed control. Use rates 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		
Sorghum treated with Concep II Sorghum Seed Safener		Qld, NSW, ACT, NT only		





CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
Spinach and Silverbeet	Annual Ryegrass, Apple of Peru, Awnless Barnyard Grass, Barnyard Grass, Blackberry Nightshade, Chickweed (suppression), Common Cotula Common Sowthistle (suppression), Crowsfoot Grass, Deadnettle, Fat Hen, Fiddle Dock, Fierce Thornapple (suppression), Italian Ryegrass, Liverseed Grass, Lovegrass, Nettleleaf	All States	3 to 4 L/ha	Apply with a boom spray, in a minimum of 60 L water/ha. Apply immediately before, at, or immediately after sowing. If transplanting the crop, apply immediately before transplanting. DO NOT apply herbicide over the transplants. Crop retardation may occur where the herbicide is used on soils that have low organic matter content and which contain more than 60% of fine sand and silt. On these soil types, use rates towards the low end of the rate range, and apply to moist soil. Irrigation after application on these types of soils should be limited to no more than 25 mm. Also, on these soils, DO NOT use more than once per year (as on product label for brassicas). For other relevant instructions, see Broccoli (etc) section of Directions for Use table.
Spring onions ( <i>Allium fistulosum</i> ) and Shallots ( <i>Allium cepa</i> var. <i>aggregatum</i> )	Goosefoot (suppression), Pigeon Grass, Pigweed (suppression), Potato Weed, Redroot Amaranth (suppression), Shepherd's Purse, Stinging Nettle, Summer Grass, Twiggy Turnip (suppression), Winter Grass, Wireweed (suppression) Yellow Weed		2L/ha	<b>DIRECT SEEDED CROPS:</b> Apply one application before, at or immediately after planting and before crops and weeds have germinated; <b>TRANSPLANTED CROPS:</b> Apply one application before planting and before weeds have germinated.
Sweet Potato	Black Pigweed, Red Shank, Potato Weed, Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrasses, Pigeon Grass, Summer Grass, suppression of Evening Primrose	Qld, NSW, ACT, Vic, SA, NT only	3 L/ha	<b>Pre-emergent:</b> 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 reilling 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> )	NSW, ACT, Vic only	3 L/ha	Apply by low volume boom spray prior to transplanting and before weeds and grasses germinate. The seed bed 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 7.5 cm. 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 4 cm 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.

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