

CAUTION

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

TITAN

Metolachlor 960

Herbicide

ACTIVE CONSTITUENT: 960g/L METOLACHLOR

GROUP **K** HERBICIDE

For the control of certain annual grasses and broadleaf weeds in certain crops as specified in the Directions for Use table.

IMPORTANT: READ THOROUGHLY BEFORE OPENING OR USING THIS PRODUCT.

APVMA Approval No.: 62514/0408

Pack Sizes: 10L, 20L, 110L,
120L, 220L, 1000L



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IN A TRANSPORT EMERGENCY

DIAL 000

POLICE OR FIRE BRIGADE

TRANSPORT AND HANDLING
NOT A DANGEROUS GOOD
ACCORDING TO THE AUSTRALIAN
DANGEROUS GOODS (ADG) CODE
FOR TRANSPORT BY ROAD AND RAIL.

DIRECTIONS FOR USE

CROP	PEST	STATE	RATE	CRITICAL COMMENTS
Barley, Oats	Suppression of Annual Ryegrass	NSW, ACT, VIC, TAS, SA, WA only	565 to 750mL/ha	Apply to moist soils immediately after planting and before crop and weeds emerge. Use the lower rate on light soils. Application should be made to a moist seed bed and sufficient rain to thoroughly wet the top 3 to 4cm of soil should occur within 10 days after spraying. Damage may occur if crop is sown too shallow (less than 4cm). Damage can occur on light sandy soil types after heavy rain. See General Instructions for use in zero-tillage systems.
Barley, Oats, Triticale, Wheat	Toad Rush	NSW, ACT, VIC, TAS, SA, WA only	225 to 375mL/ha	Apply at or immediately after planting and before crop and weeds emerge. Application should be made to a moist seed bed 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 TITAN Triasulfuron 750 Herbicide apply pre-sowing and incorporate by sowing operation (for Wheat only). See General Instructions for use in zero-tillage systems.
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	2.25 to 3L/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, Twigg 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	2.25 to 3L/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 Apple of Peru, Common Sowthistle, Fierce Thornapple, Liverseed Grass, Redroot Amaranth, Twigg 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.
	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 only		
Canola	Toad Rush	QLD, NSW, ACT, VIC, TAS, SA only	225 to 375mL/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.
		WA only		Apply before crops and weeds emerge. Apply to moist soil. To avoid crop injury use rates towards the lower end of the range on light sandy soils.
Cotton	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Lovegrass, Pigeon Grass, Summer Grass, Wandering Jew	Qld, NSW, WA only	1.5L/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 120L 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 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	QLD, NSW, ACT, VIC, SA only	2.25 to 3L/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 areas as this will reduce weed control.

SITUATION	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
Green Beans, Navy Beans – <i>continued</i>	Powell's Amaranth	TAS only	3L/ha	Pre-emergent: Apply before, at, or immediately after planting and before crops and weeds have germinated. For sufficient Amaranth control the TITAN Metolachlor 960 Herbicide application should be followed by 1L/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	QLD, NSW, ACT, VIC, TAS, SA, NT only	1.5 to 3L/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 120L 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 50% to 70%.
	Blackberry Nightshade, Caltrop, Common Thornapple, Mintweed, Needle Burr, Noogoora Burr, Pigweed, Redroot Amaranth, Slim Amaranth		1.5 to 3L plus 2.5L of Farmozine 500 Flowable per ha	
Pastures – Trikkala Sub-Clover, Haifa White Clover, Maral Persian Clover, Paradana Balansa Clover, Redquin Red Clover, Phalaris and Cocksfoot	Toad Rush	NSW, ACT, VIC, SA, NT only	300 to 375mL/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 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. 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 500 mL rate is being used.
Peanuts	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Love Grass, Pigeon Grass, Summer Grass, Wandering Jew	QLD, NSW, NT only	1.5 to 3L/ha	Apply before 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 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. Use rates toward the higher end of the range on heavy soils or where a heavy grass population is expected.
Soybeans, Sunflowers		QLD, NSW, ACT, VIC, SA, NT only		
Sorghum treated with Concep II Sorghum Seed Safener	Barnyard Grass, Crowsfoot Grass, Liverseed Grass, Love Grass, Pigeon Grass, Summer Grass, Wandering Jew	QLD, NSW, ACT, NT only	1.5 to 3L/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 120L 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 4cm of soil. If rain does not occur or irrigation is unavailable incorporate chemical to a depth of 3 to 4cm. Use rates toward 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. 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 plus 2.5L of Farmozine 500 Flowable per ha	
Sugar Cane (plant and ratoon)	Awnless Barnyard Grass, Barnyard Grass, Bellvine, Billygoat Weed (Blue Top), Blackberry Nightshade, Caltrop, Common Sowthistle (Milk Thistle), Common Thornapple, Crowsfoot Grass, Green Summer Grass, Guinea Grass, Mexican Clover, Mintweed, Needle Burr, Passionfruit Vines, Pigeon Grass, Pigweed, Redroot Amaranth, Square Weed, Star of Bethlehem, Summer Grass, Wild Rose	Southern QLD only (Bundaberg South)	1.65 to 2.175L plus 2.7 to 3.6L Farmozine 500 Flowable or 1.5 to 2kg of Farmozine 900 WDG	Apply as a pre- or post-emergent application to crop. Apply once per year only. Application should be made to a moist soil before weeds and grasses have germinated. If conditions remain dry for a period of 10 days after spraying, irrigation or a shallow cultivation (2.5cm) may assist results. DO NOT throw untreated soil on to treated areas as this will reduce weed control. In Southern Queensland, use rates toward the higher end of the range on heavy soils where a high grass population is expected. In Northern Queensland, application must be made to moist soil and rainfall or irrigation should occur within 24 hours of application. Use rates toward the higher end of the range where high Green Summer Grass population is expected. Where broadleaf weeds and grasses have emerged and are in the 2 to 4 true leaf stage, knockdown herbicides such as Primatol* Z (2L/ha), a flowable diuron (500g/L) at 1L/ha or Spraytop 250 SL (1.2 to 1.6L/ha), applied as a post directed spray, can be added. Where broadleaf weeds only have emerged and are at the 2 to 4 true leaf stage then a 500g/L 2,4-D amine at 2L/ha should be added. In all cases add a non-ionic surfactant. Follow all instructions and restrictions on the Farmozine labels.
		Northern QLD only (Mackay North)	2.175 to 2.7L plus 3.6 to 4.5L Farmozine 500 Flowable or 2 to 2.5kg of Farmozine 900 WDG	

SITUATION	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
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	2.25L/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 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. gigrum</i>)	NSW, VIC only	2.25L/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.

WITHHOLDING PERIODS:

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.

WHEAT, BARLEY, OATS, TRITICALE:

DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 8 WEEKS AFTER APPLICATION.

FORAGE ALL OTHER CROPS (EXCEPT SWEET POTATOES):

DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 13 WEEKS AFTER APPLICATION.

GENERAL INSTRUCTIONS

RESISTANT WEEDS WARNING

TITAN Metolachlor 960 Herbicide is a member of the amide group of herbicides with diverse sites of action. For weed resistance management TITAN Metolachlor 960 Herbicide is a Group K Herbicide. Some naturally occurring weed biotypes resistant to TITAN Metolachlor 960 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 TITAN Metolachlor 960 Herbicide or Group K other herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of TITAN Metolachlor 960 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 TITAN AG Pty Ltd.

USES

The product 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 Flowable Atrazine 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.

MIXING

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

COMPATIBILITY

TITAN Metolachlor 960 Herbicide is compatible with Cotogard* SC, Cotoran* SC, Farnozine* 500, Prometryn* 500 Flowable, Lonestar* (Triasulfuron), Spraytop* 250 SL and Wipe-Out* (glyphosate).

Warning – Cotton: Heavy rain following an application of TITAN Metolachlor 960 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. TITAN Metolachlor 960 Herbicide should not be used in situations where these conditions are likely to occur.

Warning – Brassica crops: Crop retardation may occur where TITAN Metolachlor 960 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 TITAN Metolachlor 960 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 TITAN Metolachlor 960 Herbicide immediately before sowing.

DO NOT USE ON SOILS CONTAINING LESS THAN 5% CLAY IN THE TOP 30cm.

DO NOT USE MORE THAN ONCE PER YEAR.

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 TITAN Metolachlor 960 Herbicide.

DRIFT WARNING

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

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.

RE-ENTRY PERIOD

DO NOT enter treated area until spray has dried.

STORAGE AND DISPOSAL

10L, 20L: 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 500 mm 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.

Envirodrum Micro Matic Valve (110L, 120L, 220L): Store the original sealed Store the original sealed Envirodrum in a cool well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the Envirodrum with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the Envirodrum to the point of purchase. The Envirodrum remains the property of TITAN AG Pty Ltd.

1000L: Store in the closed, original container in a cool, well-ventilated areas. DO NOT store for prolonged periods in direct sunlight. Storage must be secure so that contents cannot be tampered with. All locks and/or seals must be in order. If locks or seals are broken prior to initial use then the integrity of this product cannot be assured. If this occurs TITAN AG Pty Ltd should be advised immediately. This minibulk container is reusable and remains the property of TITAN AG Pty Ltd. DO NOT rinse empty container. Empty contents fully into application equipment. Close all valves and return to the point of supply for refill or storage. No other liquid, solid or pesticide product should be put into it. When empty return to TITAN AG Pty Ltd for cleaning, relabelling and refilling.

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. If swallowed, DO NOT induce vomiting. Give a glass of water.

SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Metolachlor 960 Herbicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit www.titanag.com.au

CONDITIONS OF SALE

TITAN AG Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on TITAN AG's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of TITAN AG Pty Ltd has any authority to add to or alter these conditions.

* Other trademarks

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects. **Precautionary:** Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment. Contaminated work clothing should not be allowed out of the workplace. Specific treatment (see on this label). If skin irritation or rash occurs: Get medical advice/attention. **IF ON SKIN:** Wash with plenty of water. Collect spillage. Take off contaminated clothing and wash it before reuse. Dispose of contents/container in accordance with local/regional/national regulations.

