

CAUTION

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Launch[®]

Fungicide

ACTIVE CONSTITUENT: 430 g/L TEBUCONAZOLE

GROUP

3

FUNGICIDE

For the control of leaf spot and leaf speckle on bananas, rust, leaf spot and net blotch of peanuts; foliar diseases on cereal crops; and other diseases on beans, lettuce, sugar cane, grapevines, peas, onions, pawpaw, pyrethrum, and ryegrass and fescue seed crops as specified in the Directions for Use Table.

CHEMINOVA AUSTRALIA PTY LTD
A.B.N. 59 472 616 773
A.C.N. 110 199 169
12 JULIUS AVE
NORTH RYDE NSW 2113
PH: 1800 624 597
www.cheminova.com.au

CONTENTS: 5-1000 L

DIRECTIONS FOR USE

CROP	DISEASE	APPLICATION	RATE	WHP	CRITICAL COMMENTS
Bananas (Qld, NSW, WA, NT only)	Leaf Spot (Yellow Sigatoka), Leaf Speckle, Black Sigatoka	Ground Application Apply by misting machine or airblast sprayer in a convenient volume of water Aerial Application Apply at least 20 L of spray mixture per hectare	230 mL/ha Add 3-6 L water miscible oil/ha	1 day	Maintain good deleaving practices to reduce disease inoculum. Very old leaves and leaves with advanced lesions should be removed, or infected parts of the leaf removed, prior to the application of Cheminova Launch. Tropical areas (eg North Qld, NT, Ord River): Apply a regular schedule of protectant sprays. When conditions favour disease, apply a minimum of 2 and a maximum of 3 consecutive Launch sprays at 14 day intervals. DO NOT apply more than 6 Launch sprays in any 12 month period. DO NOT apply any Launch sprays in the months of June, July, August and September. Sub-tropical areas (eg South Qld, NSW): Commence spraying with Launch at the onset of warm and humid/wet weather, normally December. Repeat at 21 to 28 day intervals using a minimum of 2 consecutive Launch sprays. DO NOT apply more than 5 Launch sprays in any 12 month period. Launch is approved for use in banana plantations interplanted with avocados.
Grapevines	Powdery Mildew	Dilute or concentrate spraying	Dilute Spraying 30 mL/100L Concentrate Spraying Refer to "Special Instructions for grapevines" in the application section	H 8 weeks	Apply thoroughly as part of the following 5 spray program: 1. When shoots 10-20 cm long 2. Pre-flowering 3. Flowering 4. After fruit set 5. Before bunches close This use is subject to a CropLife Australia Fungicide Resistance Management Strategy. DO NOT apply more than two consecutive spray of Cheminova Launch. DO NOT apply more than three sprays of Launch per season DO NOT use Launch curatively. Apply by dilute and concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying by dilute or concentrate spraying methods. DO NOT use equipment that requires concentrate rates greater than 150 mL/100 L of water (5x). DO NOT apply in volumes less than 250 L/ha. Add a non-ionic wetting agent at 10 mL/100 L regardless of whether applying by dilute or concentrate spraying.
Green beans	Rust	Can be applied by aircraft or ground rig	350 mL/ha + Agridex 1 L/ha	H 3 days G 3 days	Spray when Rust infection begins or at budding, whichever is the earlier. Repeat application 10-14 days later. A third application may be necessary when infection occurs early or disease pressure is high.
Lettuce	Sclerotinia Rot	Apply by boom spray	350 mL/ha	H 5 weeks	Apply only during the early stages of plant development. Apply a maximum of 2 applications at 7-10 day intervals in rotation with other chemicals registered for this use (eg procymidone, iprodione). Apply only to field crops. DO NOT apply in greenhouse (ie protected cropping) situations or hydroponically grown lettuce crops. Control of Sclerotinia should not be solely reliant on fungicides. Other control measures such as crop rotation, resistant varieties and planting techniques should be employed.
Onions (Tas only)	White Root Rot	Before sowing, apply Launch onto lime super. Ensure good coverage of all lime super particles	1.45 mL/100 m of row mixed with 145-218 g lime super/100 m of row	—	Apply Launch treated lime super when sowing onion seed. Seed and lime super can either be mixed in the same box on the drill or placed in different boxes and sown down the same tube. Apply in a band width of 2 cm. Ensure that the correct rate of Launch is used otherwise some delay in emergence and reduced stands of seedlings may occur.

CROP	DISEASE	APPLICATION	RATE	WHP	CRITICAL COMMENTS
Pawpaw	Black Spot	Ensure thorough coverage of leaves and fruit	290 mL/ha	3 days	Ensure infected plant material is regularly removed and destroyed to reduce inoculum levels. Spray equipment must be properly calibrated to apply the correct amount of Cheminova Launch. Apply Launch at 14 day intervals. Alternate Launch with sprays of a protectant fungicide (eg Dithane DF). DO NOT apply more than 6 sprays of Launch (or any DMI fungicide) on any block in any 12 month period.
Peanuts (South Qld, NSW only)	Early Leaf Spot, Late Leaf Spot, Rust, Net Blotch	Low Disease Ground Application Apply in at least 100 L of water/ha Aerial Application Apply at least 30 L of spray mixture per hectare	175 mL/ha + Agridex* at 1 L/ha	H 3 weeks G 3 weeks	Regularly check high risk areas in the crop for disease (eg lower leaves, shaded plants). When Leaf Spot or Net Blotch or Rust can easily be found then either: – spray immediately after the last disease conducive weather (eg rain or heavy dews); OR – spray before the next disease conducive weather. Repeat after 14 days if conditions remain favourable to disease development. If not, repeat before or just after the next disease conducive weather. Use of Launch on peanuts is subject to a CropLife Australia Resistance Management Strategy. Apply no more than 3 consecutive Group 3 sprays alone (eg Launch) before changing to a different activity group. Apply a maximum of five Group 3 sprays per season. *or equivalent crop oil
		High disease OR wet weather	290 mL/ha + Agridex* 1 L/ha		
		High disease AND wet weather	440 mL/ha + Agridex* 1 L/ha		
Peanuts (North Qld, WA, NT only)	Early Leaf Spot, Late Leaf Spot, Rust	Low disease	230 mL/ha + Agridex * 1 L/ha	H 3 weeks G 3 weeks	Begin spraying at 3-4 weeks after planting. If band spraying apply half the appropriate rate as a 45 cm band directly over the row. Sprays should not be banded after 6 weeks from planting. Repeat applications at 14 day intervals. If prolonged wet weather or heavy rains occur, shorten spray interval to 10-12 days. Use of Launch on peanuts is subject to a CropLife Australia Resistance Management Strategy. Apply no more than 3 consecutive Group 3 sprays alone (eg Launch) before changing to a different activity group. Apply a maximum of five Group 3 sprays per season. *or equivalent crop oil
		Moderate disease	290 mL/ha + Agridex * 1 L/ha		
		Severe disease	440 mL/ha + Agridex * 1 L/ha		
	Net Blotch	Low disease	290 mL/ha + Agridex * 1 L/ha		Apply at 14 day intervals. If prolonged cool moist weather occurs, shorten spray interval to 10-12 days. Use of Launch on peanuts is subject to a CropLife Australia Resistance Management Strategy. Apply no more than 3 consecutive Group 3 sprays alone (eg Launch) before changing to a different activity group. Apply a maximum of five Group 3 sprays per season. *or equivalent crop oil
		Moderate – severe disease	440 mL/ha + Agridex* 1 L/ha		
Peas	Powdery Mildew	Ground Application Apply in at least 50 L of water/ha Aerial application Apply in at least 10 L of water/ha	145 mL/ha	H 3 days G 3 days	Apply at flowering or at first sign of disease, whichever occurs first. A second spray 14 days later may be necessary under some conditions.
Pyrethrum	Sclerotinia Sclerotiorum	–	350 mL/ha	–	Apply twice, in rotation with other control measures at 7-10 day intervals. Commence at 1 to 2% flowering. Use under directions of pyrethrum advisers.

CROP	DISEASE	APPLICATION	RATE	WHP	CRITICAL COMMENTS
Sugarcane (variety Q124 only)	Orange Rust	Ground Application Use droppers and directed sprays and sufficient water volume to ensure thorough coverage Aerial Application Apply in a minimum spray volume of 20 L per hectare	290 mL + Agridex* 1 L/ha	H 4 weeks G 4 weeks	Even low levels of Orange Rust suppress yields so it is important to apply Launch in the development of the disease epidemic. Begin monitoring disease levels early. Check crops at least weekly when climatic conditions favour the development of disease. Apply as a foliar spray when disease begins to escalate rapidly. Repeat application after 14 days if conditions remain favourable to orange rust spore germination. DO NOT apply more than 2 Launch sprays per season. DO NOT apply if heavy rains or storms that are likely to cause surface run-off are forecast with greater than 50% probability within 24 hours (48 hours if possible) of application. maximum of five Group 3 sprays per season. *or equivalent crop oil
Ryegrass and Fescue Seed crops	Leaf Rust, Stem Rust	Apply in at least 100 L of water/ha	290 mL/ha	G 14 days	Monitor crops closely and spray at the first signs of disease. Continuing disease pressure or re-infection may require a further application 3-4 weeks later. Ensure thorough coverage, and use higher water volumes in dense or advanced crops.
Wheat	Leaf Rust, Stripe Rust, Septoria Nodorum Blotch, Yellow Leaf Spot	Ground Application Apply in at least 50 L of water/ha Aerial application Apply in at least 10 L of water/ha	145 or 290 mL/ha	H 5 weeks G 14 days	Use higher rate when longer disease control is required. Stripe Rust: See spray timings under General Instructions. Other diseases: Apply from full flag leaf emergence to early head emergence. The addition of mineral crop oil eg D-C- Trate or equivalent) at 1%, may improve performance of Launch on wheat, oats and barley.
	Septoria Tritici Blotch		290 mL/ha		
Oats	Crown Rust		145 or 290 mL/ha		
Barley	Scald		145 mL/ha		Apply at late tillering to early jointing.
	Powdery Mildew		145 or 290 mL/ha		Apply when 5% of the leaf area is infected. Use higher rate when longer disease control is required.
Wheat, Oats	Stem Rust		145 mL/ha		Stem Rust: Apply if more than 5% of stems become infected between full flag leaf emergence to late flowering. Where Stem Rust is the major disease, yield responses are usually optimised by delaying application until full head emergence, and using the higher rate. In severe cases, if a majority of stems are infected prior to full head emergence, apply at 145 mL/ha as soon as possible and if necessary, repeat after 3 weeks when heads are fully emerged.

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

WITHHOLDING PERIODS:

Harvest

BANANAS, AVOCADOS: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

BEANS, PEAS: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.

CEREALS: DO NOT HARVEST FOR 5 WEEKS AFTER APPLICATION.

LETTUCE: DO NOT HARVEST FOR 5 WEEKS AFTER APPLICATION

GRAPEVINES: DO NOT HARVEST FOR 8 WEEKS AFTER APPLICATION.

PAPAW: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.

PEANUTS: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION.

SUGAR CANE: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.

Grazing

BEANS, PEAS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 3 DAYS AFTER APPLICATION.

CEREALS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION.

PEANUTS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 21 DAYS AFTER APPLICATION

RYEGRASS AND FESCUE SEED CROPS; DO NOT CUT OR GRAZE FOR STOCK-FOOD FOR 14 DAYS AFTER APPLICATION

SUGAR CANE: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 4 WEEKS AFTER APPLICATION.

ONIONS: NOT REQUIRED WHEN USED AS DIRECTED.

GENERAL INSTRUCTIONS

FUNGICIDE RESISTANCE WARNING

GROUP	3	FUNGICIDE
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Launch Fungicide is a member of the DMI group of fungicides. For fungicide resistance management the product is a Group 3 fungicide. Some naturally occurring individual fungi resistant to the product and other Group 3 fungicides may exist though normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungal

population if these fungicides are used repeatedly. These resisting fungi will not be controlled by this product and other Group 3 fungicides, thus resulting in a reduction in efficacy and possible yield loss. Since the occurrence of resistant fungi is difficult to detect prior to use, Cheminova Australia Pty Ltd accepts no liability for any losses that result from failure of this product to control resistant fungi.

Resistance Management Recommendation – Peanuts

Apply no more than 3 consecutive sprays of DMI fungicide (eg Tebuconazole) before switching to a non-DMI fungicide. Apply no more than 5 DMI sprays per season.

Special Warning – Bananas

There are certain conditions when the surface of recently emerged fruit is particularly prone to marking damage from spray applications. In circumstances where application will be made to very rapidly growing fruit in hot conditions with strong direct light, it is recommended that all emerged bunches be bagged prior to spraying to minimise risk of fruit marking.

Never include adjuvants other than water miscible oils with Launch sprays. The inclusion of wetting agents is known to cause phototoxicity to young fruit.

Foliar Diseases on Cereal Crops

DO NOT apply to cereal crops more than once in a season (290 mL/ha rate) or more than twice per season (145 mL/ha rate). Treatment will give approximately three weeks disease suppression. Economic responses may not be gained by spraying crops past flowering stage. The effects of fungicide application will not be clearly seen for 7-10 days after application.

Spray timings for Stripe Rust control

Obtain advisory literature from Department of Agriculture for classification of resistant and susceptible varieties. The following spray program is suggested:

Seedling Infections: When approximately 20 out of 100 leaves show first signs of infection during tillering to jointing, apply a spray within one week.

Adult infections – susceptible varieties: When approximately 10 out of 100 leaves show first signs of infection, apply within one week. DO NOT delay.

Adult infections – moderately susceptible varieties: When approximately 15 to 20 leaves out of 100 leaves show first signs of infection, apply a spray within one week. DO NOT delay.

Adult infections – moderately resistant and resistant varieties: Monitor carefully. If rust appears and spreads, spray within one week.

Lettuce – To avoid crop damage: The sensitivity of some species and varieties of the crops to be treated has not been fully evaluated. It is advisable, therefore, to treat a small number of plants to ascertain their reaction before treating the whole crop.

MIXING

Prior to pouring, shake container vigorously, then add the required amount of Launch to water in the spray vat while stirring or with agitators in motion. Add the required amount of Agridex (peanuts, beans, sugar cane) or water miscible oil (bananas) and mix thoroughly.

APPLICATION

Aircraft should fly as low as possible under the prevailing conditions to minimise drift.

Special Instructions for Grapevines

Dilute Spraying:

- Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to point of run-off. Avoid excessive run-off.
- The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Add the amount of product specified in the Directions for Use table for each 100L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate spraying:

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (see dilute spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way:

EXAMPLE ONLY:

- i) Dilute spray volume as determined above: For example 1500 L/ha
- ii) Your chosen concentrate spray volume: For example 500 L/ha

- iii) The concentration factor in this example is: $3 \times$ (ie $1500 \text{ L} \div 500 \text{ L} = 3$)
- iv) If the dilute label rate is 10 mL/100 L, then the concentrate rate becomes 3×10 , that is 30 mL/100 L of concentrate spray.
- The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.
- For further information on concentrate spraying, users are advised to consult the relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used container.

A spray drift minimisation strategy should be employed at all times. Spray drift may occur under adverse meteorological conditions or from certain spraying equipment. DO NOT allow spray drift onto sensitive areas including, but not limited to susceptible plants/crops, cropping land, pasture, natural streams, rivers, wetlands, waterways or human dwellings.

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.

Leaflet

The method of disposal of the container depends on the container type. Read the 'Storage and Disposal' instructions on the label that is attached to the container.

Non-returnable containers only

Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging 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.

100, 110L

Do not remove or tamper with the dry valves or security seal. Do not contaminate the drum with water or any other foreign matter. After each use of the product ensure that the dry valve coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the drum is empty remove the dry valve coupler and return to the point of purchase.

1000L

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with the eyes and skin. When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126.

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet available from www.cheminova.com.au.

WARNING

This product must be used, handled and stored strictly as directed in accordance with this label, packaging and other reference material ("Directions"). To the extent permitted by law Cheminova Australia Pty Ltd and its related companies will have no liability for any injury, loss or damage arising from a failure to follow the Directions.

APVMA Approval No: 59808 /61804

Batch No:

Date of Manufacture:

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Drummaster logo (relevant pack sizes)

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FOR 24 HOUR SPECIALIST ADVICE IN EMERGENCY ONLY PHONE 1800 033 111
