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

**Apparent** 

## Whirlwind 430

### FUNGICIDE

ACTIVE CONSTITUENT: 430g/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, peas, onions, pawpaw, pyrethrum and ryegrass and fescue seed crops as specified in the Directions for Use Table.

**IMPORTANT: Read this booklet before use.**

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## DIRECTIONS FOR USE

Crop	Disease	Application	Rate mL/ha	WHP
Bananas (Qld, NSW, WA, NT only)	Leaf spot (Yellow Sigatoka), Leaf speckle, Black Sigatoka	<b>Ground Application</b> Apply by misting machine or airblast sprayer in a convenient volume of water <b>Aerial Application</b> Apply at least 20 L of spray mixture per hectare.	230  Add 3 – 6 L Water miscible oil per ha	H 1 days
Peanuts (South Qld and NSW only)	Early leaf spot, Late leaf spot, Rust, Net Blotch only)	<b>Ground Application</b> Apply in at least 100 L of water per ha <b>Aerial Application</b> Apply at least 30 L of spray mixture per hectare.		H 3 weeks
		<b>Low Disease</b>	175 + Agridex 1L/ha	G 3 weeks
		<b>High Disease</b> OR <b>Wet Weather</b>	290 + Agridex 1L/ha	
		<b>High Disease</b> AND <b>Wet Weather</b>	440 + Agridex 1L/ha	
Peanuts (North Qld, WA, NT only)	Early leaf spot, Late leaf spot, Rust	<b>Low Disease</b>	230 + Agridex 1L/ha	H 3 weeks
		<b>Moderate Disease</b>	290 + Agridex 1L/ha	G 3 weeks
		<b>Severe Disease</b>	440 + Agridex 1L/ha	
	Net blotch	<b>Low Disease</b>	290 + Agridex 1L/ha	H 3 weeks G 3 weeks
		<b>Moderate - Severe Disease</b>	440 + Agridex 1L/ha	

Critical Comments
<p>Maintain good de-leaving 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 Apparent Whirlwind 430 Fungicide.</p> <p><b>Tropical Areas (eg North Qld, NT, Ord River):</b> Apply a regular schedule of protectant sprays. When conditions favour disease, apply a minimum of 2 and a maximum of 3 consecutive Apparent Whirlwind 430 Fungicide sprays at 14 day intervals. Do not apply more than 6 Apparent Whirlwind 430 Fungicide sprays in any 12 month period. Do not apply any Apparent Whirlwind 430 Fungicide sprays in the months of July, August and September.</p> <p><b>Sub-Tropical Areas (eg South Qld, NSW):</b>            Commence spraying with Apparent Whirlwind 430 Fungicide at the onset of warm and humid/wet weather, normally December. Repeat at 21 to 28 day intervals using a minimum of 2 consecutive Apparent Whirlwind 430 Fungicide sprays. Do not apply more than 5 Apparent Whirlwind 430 Fungicide sprays in any 12 month period. Apparent Whirlwind 430 Fungicide is approved for use in banana plantations inter-planted with avocados.</p> <p>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;</p> <ul style="list-style-type: none"> <li>• Spray immediately after last disease conducive weather (eg rain or heavy dews), or</li> <li>• Spray before the next disease conducive weather.</li> </ul> <p>Repeat after 14 days if conditions remain favourable to disease development. If not, repeat just before or just after the next disease conducive weather. For resistance strategy, see General Instructions.</p>
<p>Begin spraying at 3-4 weeks after planting. If band spraying, apply half the appropriate rate as a 45cm 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. For resistance strategy, see General Instructions.</p>
<p>Apply at 14 day intervals. If prolonged cool moist weather occurs, shorten spray interval to 10-12 days. For resistance strategy, see General Instructions..</p>

Crop	Disease	Application	Rate mL/ha	WHP
Green Beans	Rust	Can be applied by aircraft or ground rig	350 + Agridex 1L/ha	H 3 days G 3 days
Lettuce	Sclerotinia Rot	<b>Apply by boomspray</b>	350mL/ha	5 weeks
Peas	Powdery Mildew	<b>Ground Application</b> Apply in at least 50 L of water per hectare	145	H 3 days G 3 days
Wheat	Leaf rust, Stripe rust, <i>Septoria nodorum</i> blotch, Yellow leaf spot <i>Septoria tritici</i> blotch	<b>Aerial Application</b> Apply in at least 10 L of water per hectare	145 or 290	H 5 weeks G 14 days
			290	
Oats	Crown rust		145 or 290	
Barley	Scald		145	
	Powdery mildew		145 or 290	
Wheat, Oats	Stem rust			
Onions (Tas only)	White root rot	Before sowing apply Apparent Whirlwind 430 Fungicide 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	-
Pawpaw	Black spot	Ensure thorough coverage of leaves and fruit.	290	H 3 days
Pyrethrum	<i>Sclerotinia sclerotiorum</i>		350	-
Ryegrass and fescue seed crops	Leaf rust, Stem rust	Apply in at least 100 L of water per ha	290	-

Critical Comments
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.
Apply only during the early stages of plant development (note the 5 week WHP). Apply a maximum of 2 applications at 7-10 day intervals in rotation with other chemicals registered for this use (ie. procymidone, iprodione and benomyl). Apply only to field crops. DO NOT apply in greenhouse (ie. protected cropping) situations or hydroponically grown lettuce crops. Control of Sclerotinia in lettuce should not be solely reliant on fungicides. Other control measures such as crop rotations, resistant varieties and planting techniques should be employed.
Apply at flowering or at the first sign of disease, whichever occurs first. A second spray 14 days later may be necessary under some conditions.
Use the higher rate when longer disease control is required.
<b>Stripe rust:</b> See spray timings under General Instructions. <b>Other diseases:</b> Apply from full flag leaf emergence to early head emergence. The addition of mineral crop oil (eg DC Trate or equivalent) at 1% may improve performance of Apparent Whirlwind 430 Fungicide on wheat, oats and barley.
Apply at late tillering to early jointing.
Apply when 5% of the leaf area is infected. Use higher rate when longer disease control is required.
Apply if more than 5% of stems become infected between full flag emergence to late flowering. When 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 145mL/ha as soon as possible and if necessary repeat after 3 weeks when heads are fully emerged.
Apply Apparent Whirlwind 430 Fungicide 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 bandwidth of 2cm. Ensure that the correct rate of Apparent Whirlwind 430 Fungicide is used otherwise some delay in emergence and reduced stands of seedlings may occur.
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 Apparent Whirlwind 430 Fungicide. Apply Apparent Whirlwind 430 Fungicide at 14 day intervals. Alternate Apparent Whirlwind 430 Fungicide with sprays of a protectant fungicide (eg Mancozeb). Do not apply more than 6 sprays of Apparent Whirlwind 430 Fungicide (or any DMI fungicide) on any block in any 12 month period.
Apply twice, in rotation with other control measures, at 7-10 day intervals. Commence at 1 to 2% flowering. Use under direction of pyrethrum advisers.
Monitor crops closely and spray at the first signs of disease. Continuing disease pressure or reinfection may require a further application 3-4 weeks later. Ensure thorough coverage and use higher water volumes in dense or advanced crops.

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

H = Harvest, G = Grazing

#### **WITHHOLDING PERIODS:**

**Bananas, Avocados: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.**

**Beans, Peas: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION AND DO NOT GRAZE OR CUT FOR LIVESTOCK FOR 3 DAYS AFTER APPLICATION.**

**Cereals: DO NOT HARVEST FOR 5 WEEKS AFTER APPLICATION AND DO NOT GRAZE OR CUT FOR LIVESTOCK FOR 14 DAYS AFTER APPLICATION.**

**Lettuce: DO NOT HARVEST FOR 5 WEEKS AFTER APPLICATION**

**Onions: NOT REQUIRED WHEN USED AS DIRECTED.**

**Pawpaw: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.**

**Peanuts: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION AND DO NOT GRAZE OR CUT FOR LIVESTOCK FOR 21 DAYS AFTER APPLICATION.**

#### **GENERAL INSTRUCTIONS**

#### **FUNGICIDE RESISTANCE WARNING**

#### **GROUP 3 FUNGICIDE**

Apparent Whirlwind 430 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 Apparent Whirlwind 430 Fungicide and other Group 3 fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi will not be controlled by Apparent Whirlwind 430 Fungicide or 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, AIRR Apparent Pty Ltd accepts no liability for any losses that may result from the failure of Apparent Whirlwind 430 Fungicide to control resistant fungi.

#### **Resistance management recommendation – Peanuts**

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

#### **MIXING**

Prior to pouring, shake container vigorously, then add the required amount of Apparent Whirlwind 430 Fungicide to water in the spray vat while stirring or with agitators in motion. Add the required amount of Agridex (peanuts, beans) or water miscible oil (bananas) and mix thoroughly.

#### **APPLICATION**

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

#### **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 Apparent Whirlwind 430 Fungicide sprays. The inclusion of wetting agents is known to cause phototoxicity to young fruit.

**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.

#### **FOLIAR DISEASES ON CEREAL CROPS**

Do not apply to cereal crops more than once in a season. Treatment will give approximately three weeks disease suppression. Economic response 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. Yield potential: crops with potential yield under 2 t/ha are unlikely to give economic responses to a fungicide spray except under conditions of very severe disease. Economic responses are most likely with crops with potential yield of over 3 t/ha.

#### **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 signs of infection during tillering or jointing, apply a spray within a week.

## **Adult Infections**

**Susceptible Varieties:** When approximately 10 out of 100 leaves show first sign of infection apply a spray within a week DO NOT delay.

**Moderately Susceptible Varieties:** When approximately 15-20 out of 100 leaves show first sign of infection apply a spray within a week. DO NOT delay.

**Moderately Resistant and Resistant Varieties:** Monitor carefully. If rust appears and spreads, spray within 1 week.

## **PRECAUTIONS**

### **Re-Entry Period**

Do not allow entry into treated areas until the spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), chemical resistant gloves and footwear. Clothing must be laundered after each day's use.

### **PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**

DO NOT contaminate streams, rivers or watercourses with the chemical or used containers. A spray drift minimisation strategy should be employed at all times when aerially applying sprays. Spray drift may occur under adverse meteorological conditions or from certain spraying equipment. DO NOT allow spray to drift onto sensitive areas including, but not limited to, susceptible plants/crops, cropping land, pasture, natural streams, rivers, wetlands, waterways or human dwellings. The strategy envisaged is exemplified by the cotton industry's Best Management Practices Manual.

### **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 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 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.

**For Refillable containers:** 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 eyes and skin. When opening the container, preparing the spray and using prepared spray wear cotton overalls buttoned to the neck and wrist, washable hat, 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 131 126, New Zealand 0800 764 766.

## **SAFETY DATA SHEET**

Additional information is listed in the Safety Data Sheet, which can be obtained from the supplier.

## **CONDITIONS OF SALE**

The use of Apparent Whirlwind 430 Fungicide being beyond the control of the manufacturer no warranty expressed or implied is given by AIRR Apparent 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 AIRR Apparent Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.