# CAUTION

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

**TITAN**

# TEBUCONAZOLE 430 SC
## 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 on Peanuts; foliar diseases on cereal crops; other diseases on Beans, Peas, Onions, Pawpaw, Pyrethrum, Ryegrass, Grapevine and Fescue Seed and Sugarcane (var. Q124) crops as per the Directions For Use table.

APVMA Approval No.: 61649/144783

**Pack Size: 10L-20L**

TITAN AG
CROP PROTECTION

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**SC** Formulation Type
**Suspension Concentrate**

**IN A TRANSPORT EMERGENCY**
**• DIAL 000 • POLICE OR FIRE BRIGADE**

9 3082
**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains tebuconazole)**
**PG III Hazchem •3Z**

**DIRECTIONS FOR USE**

**Restraints:**

**Restraints when combined with TITAN Prothioconazole 480 SC Fungicide:**

DO NOT apply aerially to Pyrethrum.
DO NOT apply where the slope exceeds 7%.
DO NOT apply to waterlogged soil.
DO NOT apply if heavy rains or storms that are likely to cause run-off are forecast within 48 hours.
DO NOT irrigate past the point of run-off for 48 hours after application.

**SPRAY DRIFT RESTRAINTS**

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift
DO NOT allow bystanders to come into contact with the spray cloud.
DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The Buffer Zones in the relevant Buffer Zone tables below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.
DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.
DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.
DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets not smaller than a MEDIUM spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory Buffer Zones' section of the following table titled 'Buffer Zones for Boom Sprayers') are observed.

| **Buffer Zones for Boom Sprayers** | | | | | | |
|---|---|---|---|---|---|---|
| **Application rate** | **Boom height above the target canopy** | **Mandatory downwind buffer zones** | | | | |
| | | **Bystander areas** | **Natural aquatic areas** | **Pollinator areas** | **Vegetation areas** | **Livestock areas** |
| TITAN Tebuconazole 430 SC at up to 490mL/ha with TITAN Prothioconazole 480 SC | 1.0 m or lower | 0 metres | 10 metres | 0 metres | 0 metres | 0 metres |

DO NOT apply by aircraft unless the following requirements are met:

- Spray droplets not smaller than a MEDIUM spray droplet size category.
- For maximum release height above the target canopy of 3 metres or 25 percent of wingspan or 25 percent of rotor diameter, whichever is the greatest, minimum distances between the application site and downwind sensitive areas (see 'Mandatory Buffer Zones' section of the following table titled 'Buffer Zones for Aircraft') are observed.

| **Buffer Zones for Aircraft** | | | | | | |
|---|---|---|---|---|---|---|
| **Application rate** | **Type of aircraft** | **Mandatory downwind buffer zones** | | | | |
| | | **Bystander areas** | **Natural aquatic areas** | **Pollinator areas** | **Vegetation areas** | **Livestock areas** |
| TITAN Tebuconazole 430 SC at up to 220mL/ha with TITAN Prothioconazole 480 SC | Fixed Wing | 0 metres | 180 metres | 0 metres | 20 metres | 0 metres |
| | Helicopter | 0 metres | 120 metres | 0 metres | 20 metres | 0 metres |

| **Table 1. TITAN Tebuconazole 430 SC FUNGICIDE used without a tank mix partner** | | | | | |
|---|---|---|---|---|---|
| **CROPS** | **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<br>**Aerial application:** Apply at least 20L of spray mixture per hectare | 230mL/ha<br>Add 3-6L water miscible oil/ha | 1 day | Maintain good deleafing 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 TITAN Tebuconazole 430 SC Fungicide.<br>**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 TITAN Tebuconazole 430 SC Fungicide sprays at 14 day intervals.<br>DO NOT apply more than 6 TITAN Tebuconazole 430 SC Fungicide sprays in any 12 month period. DO NOT apply any TITAN Tebuconazole 430 SC Fungicide sprays in the months of July, August and September.<br>**Sub-tropical areas (eg South QLD, NSW):** Commence spraying with TITAN Tebuconazole 430 SC 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 TITAN Tebuconazole 430 SC Fungicide sprays.<br>DO NOT apply more than 5 TITAN Tebuconazole 430 SC Fungicide sprays in any 12 month period.<br>TITAN Tebuconazole 430 SC Fungicide is approved for use in Banana plantations interplanted with Avocadoes. |

| CROPS | DISEASE | APPLICATION | RATE | WHP | CRITICAL COMMENTS |
|---|---|---|---|---|---|
| Grapevines | Powdery Mildew | – | **Dilute spraying:** 30mL/100L<br>**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:<br>1. When shoots 10-20cm long.<br>2. Pre-flowering.<br>3. Flowering.<br>4. After fruit set.<br>5. Before bunches close.<br>This use is subject to a Croplife Fungicide Resistance Management Strategy.<br>DO NOT apply more than 2 consecutive sprays of TITAN Tebuconazole 430 SC Fungicide. DO NOT apply more than 3 sprays of TITAN Tebuconazole 430 SC Fungicide per season. DO NOT use TITAN Tebuconazole 430 SC Fungicide curatively.<br>Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.<br>DO NOT use in equipment that requires concentrate rates greater than 150mL/100L of water (5x). DO NOT apply in volumes less than 250L/ha.<br>Add a non-ionic wetting agent at 10mL/100L regardless of whether applying by dilute or concentrate spraying. |
| Peanuts (South QLD, NSW only) | Early Leaf Spot, Late Leaf Spot, Rust, Net Blotch | **Ground application:** Apply in at least 100L of water/ha<br>**Aerial application:** Apply at least 30L of spray mixture per hectare | | H 3 weeks<br>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;<br>– Spray immediately after the last disease conducive weather (eg rain or heavy dews)<br>OR<br>– Spray before the next disease conducive weather.<br>Repeat after 14 days if conditions remain favourable to disease development. If not, repeat before or just after the next disease conducive weather.<br>For resistance strategy, see General Instructions. |
| | | Low disease | 175mL/ha + Agridex† 1L/ha | | |
| | | High disease OR wet weather | 290mL/ha + Agridex 1L/ha | | |
| | | High disease AND wet weather | 440mL/ha + Agridex 1L/ha | | |
| Peanuts (North QLD, WA, NT only) | Early Leaf Spot, Late Leaf Spot, Rust | Low disease | 230mL/ha + Agridex 1L/ha | H 3 weeks<br>G 3 weeks | 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.<br>For resistance strategy, see General Instructions. |
| | | Moderate disease | 290mL/ha + Agridex 1L/ha | | |
| | | Severe disease | 440mL/ha + Agridex 1L/ha | | |
| | Net Blotch | Low disease | 290mL/ha + Agridex 1L/ha | | Apply at 14 day intervals. If prolonged cool moist weather occurs, shorten spray interval to 10-12 days.<br>For resistance strategy, see General Instructions. |
| | | Moderate disease | 440mL/ha + Agridex 1L/ha | | |
| Green Beans | Rust | Can be applied by aircraft or ground rig | 350mL/ha + Agridex 1L/ha | H 3 days<br>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 (*Lactuca sativa*) | Sclerotinia Rot | Apply by boom spray | 350mL/ha | 5 weeks | Apply by boom spray. 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 (i.e procymidone, iprodione and benomyl). Apply only to field crops.<br>DO NOT apply in greenhouse (i.e. protected cropping) situations or hydroponically grown Lettuce crops.<br>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. |
| Peas | Powdery Mildew | **Ground application:** Apply in at least 50L of water/ha<br>**Aerial application:** Apply in at least 10L of water/ha | 145mL/ha | H 3 days<br>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. |

| CROPS | DISEASE | APPLICATION | RATE | WHP | CRITICAL COMMENTS |
|---|---|---|---|---|---|
| Wheat | Leaf Rust, Stripe Rust, Septoria, Nodorum Blotch, Yellow Leaf Spot | **Ground application:** Apply in at least 50L of water/ha<br>**Aerial application:** Apply in at least 10L of water/ha | 145 or 290mL/ha | H 5 weeks<br>G 14 days | Use higher rate when longer disease control is required.<br>**Stripe Rust:** See spray timings under General Instructions.<br>**Other diseases:** Apply from full flag leaf emergence to early head emergence.<br>The addition of mineral crop oil (eg D-C-Trate or equivalent) at 1%, may improve performance of TITAN Tebuconazole 430 SC Fungicide on Wheat, Oats and Barley. |
| | Septoria Tritici Blotch | | 290mL/ha | | |
| Oats | Crown Rust | | 145 or 290mL/ha | | |
| Barley | Scald | | 145mL/ha | | Apply at late tillering to early jointing. |
| | Powdery Mildew | | 145 or 290mL/ha | | Apply when 5% of the leaf area is infected. Use higher rate when longer disease control is required. |
| Wheat, Oats | 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 145mL/ha as soon as possible and if necessary, repeat after 3 weeks when heads are fully emerged. |
| Onions (TAS only) | White Root Rot | Before sowing, apply TITAN Tebuconazole 430 SC Fungicide onto lime super. Ensure good coverage of all lime super particles. | 1.45mL/100m of row mixed with 145-218g lime super/100m of row | – | Apply TITAN Tebuconazole 430 SC 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 band width of 2cm. Ensure that the correct rate of TITAN Tebuconazole 430 SC Fungicide is used otherwise some delay in emergence and reduced stands of seedlings may occur. |
| Pawpaw | Black Spot | Ensure thorough coverage of leaves and fruit | 290mL/ha | H 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 TITAN Tebuconazole 430 SC Fungicide. Apply TITAN Tebuconazole 430 SC Fungicide at 14 day intervals. Alternate TITAN Tebuconazole 430 SC Fungicide with sprays of a protectant fungicide (eg Dithane DF).<br>DO NOT apply more than 6 sprays of TITAN Tebuconazole 430 SC Fungicide (or any DMI fungicide) on any block in any 12 month period. |
| Pyrethrum | *Sclerotinia sclerotiorum* | – | 350mL/ha | – | 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. |
| Ryegrass and Fescue seed crops | Leaf Rust, Stem Rust | Apply in at least 100L of water/ha | 290mL/ha | – | 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. |
| Sugarcane (variety Q124 only) | Orange Rust | **Ground application:** Use droppers and directed sprays and sufficient water volume to ensure thorough coverage<br>**Aerial application:** Apply in a minimum spray volume of 20L per hectare | 290mL/ha plus Agridex 1L/ha | H 4 weeks<br>G 4 weeks | Even low levels of Orange Rust suppress yields so it is important to apply TITAN Tebuconazole 430 SC Fungicide early 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.<br>DO NOT apply more than 2 TITAN Tebuconazole 430 SC Fungicide 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. |

H = Harvest, G = Grazing



TITAN AG CROP PROTECTION

**Table 2. TITAN Tebuconazole 430 SC FUNGICIDE in tank mixes with TITAN Prothioconazole 480 SC Fungicide**
Check the label for TITAN Prothioconazole 480 SC Fungicide for withholding periods

| CROPS | STATE | DISEASE | RATE | CRITICAL COMMENTS |
|---|---|---|---|---|
| Barley | ALL STATES | Net Form Net Blotch (*Pyrenophora teres* f. *teres*) | 75 to 150mL/ha TITAN Tebuconazole 430 SC + 65 to 130mL/ha TITAN Prothioconazole 480 SC | Monitor crops from mid tillering. On susceptible varieties apply at the first sign of disease development. Monitor and reapply within 14 to 21 days if conditions favour disease development. Use the higher rates where conditions favour severe disease. Where lower rates are used apply with a suitable adjuvant (refer to **Use of Adjuvant**). |
| | | Spot Form Net Blotch (*Pyrenophora teres* f. *maculata*) | | |
| | | Powdery Mildew (*Blumeria graminis* f.sp. *hordei*) | | Monitor crops from mid tillering. Use the higher rate in higher yielding crops where conditions favour disease development or susceptible varieties are grown. |
| | | Leaf Scald (*Rhynchosporium secalis*) | | Monitor crops from mid tillering (earlier if no effective seed treatment has been applied). On susceptible varieties apply at the first sign of disease development. Monitor and reapply within 14 to 21 days if conditions favour disease development. Use the higher rates where conditions favour severe disease. Where lower rates are used apply with a suitable adjuvant (refer to **Use of Adjuvant**). |
| | | Leaf Rust (*Puccinia hordei*) | | Monitor crops from late tillering. Apply at the first sign of disease development. Monitor and reapply within 14 to 21 days if conditions favour disease development. Use the higher rates where conditions favour severe disease, or disease is established in the lower canopy. Where lower rates are used apply with a suitable adjuvant (refer to **Use of Adjuvant**). |
| Oats | ALL STATES | Stem Rust (*Puccinia graminis* f.sp. *avenae*) | 150mL/ha TITAN Tebuconazole 430 SC + 130mL/ha TITAN Prothioconazole 480 SC + adjuvant (refer to **Use of Adjuvant**) | Monitor crops from early stem elongation, and on susceptible varieties apply at the first sign of infection. Refer to **General Instructions – Disease control in Oats**, for potential risks associated with application to Oats. |
| | | Leaf Rust (*Puccinia coronata* f.sp. *avenae*) | | Monitor crops from early stem elongation, and on susceptible varieties apply at the first sign of infection. Refer to **General Instructions – Disease control in Oats**, for potential risks associated with application to Oats. |
| | | Septoria Blotch (*Phaeosphaeria avenaria*) | 75 to 150mL/ha TITAN Tebuconazole 430 SC + 65 to 130mL/ha TITAN Prothioconazole 480 SC | Monitor crops from early tillering and on susceptible varieties apply at the first sign of infection. Use the higher rate in higher yielding crops where conditions favour disease development or susceptible varieties are grown. Continue to monitor crops after application. Re-application may be required if conditions favour disease development. Where lower rates are used, apply with a suitable adjuvant (refer to **Use of Adjuvant**). Refer to **General Instructions – Disease control in Oats**, for potential risks associated with application to Oats. |
| Wheat | ALL STATES | Stripe Rust (*Puccinia striiformis*) | 75 to 150 mL/ha TITAN Tebuconazole 430 SC + 65 to 130mL/ha TITAN Prothioconazole 480 SC + adjuvant (refer to **Use of Adjuvant**) | Monitor crops from early stem elongation and on susceptible varieties apply at the first sign of infection. Use the higher rate in higher yielding crops where conditions favour disease development or susceptible varieties are grown. Continue to monitor crops after application, re-application may be required if conditions favour disease development and initial application is made before the flag leaf has emerged. |
| | | Stem Rust (*Puccinia graminis tritici*) | | |
| | | Leaf Rust (*Puccinia recondita* f.sp. *tritici*, *Puccinia triticina*) | | |
| | | Fusarium Head Blight/ Head Scab (*Fusarium graminearum*) | | Apply as a preventative spray at the first sign of flowering. Spray equipment must be set up to achieve good coverage of Wheat heads. Use the higher rate in higher yielding crops where conditions favour disease development or susceptible varieties are grown. |
| | | Yellow Leaf Spot (*Pyrenophora tritici-repentis*) | 75 to 150mL/ha TITAN Tebuconazole 430 SC + 65 to 130mL/ha TITAN Prothioconazole 480 SC | Monitor crops from late tillering and spray before disease has infected any of the top three leaves of the crop. Aim to protect the three top leaves of the plant from disease. |
| | | Septoria Nodorum – Glume Blotch (*Phaeosphaeria nodorum*) | | Monitor crops from late tillering. Aim to protect the three top leaves of the plant from disease. Where lower rates are used apply with a suitable adjuvant (refer to **Use of Adjuvant**). |
| | | Powdery Mildew (*Blumeria graminis* f.sp. *tritici*) | | Monitor crops from mid tillering. Apply at the first sign of disease development. Monitor and reapply within 14 to 21 days if conditions favour disease development. Use the higher rates where conditions favour severe disease, or disease is established in the lower canopy. Where lower rates are used apply with a suitable adjuvant (refer to **Use of Adjuvant**). |
| Triticale | ALL STATES | Stripe Rust (*Puccinia striiformis*) | 75 to 150mL/ha TITAN Tebuconazole 430 SC + 65 to 130mL/ha TITAN Prothioconazole 480 SC + adjuvant (refer to **Use of Adjuvant**) | Monitor crops from early stem elongation and on susceptible varieties apply at the first sign of infection. Use the higher rate in higher yielding crops where conditions favour disease development or susceptible varieties are grown. Continue to monitor crops after application. Re-application may be required if conditions favour disease development and initial application is made before the flag leaf has emerged. |

| CROPS | STATE | DISEASE | RATE | CRITICAL COMMENTS |
|---|---|---|---|---|
| Canola | ALL STATES | Blackleg (*Leptosphaeria maculans*) | 185 to 220mL/ha TITAN Tebuconazole 430 SC + 165 to 200mL/ha TITAN Prothioconazole 480 SC | Apply at the 4 to 6 leaf crop stage of Blackleg susceptible varieties (Blackleg ratings of MS or lower) or in situations of high Blackleg risk (refer to **General Instructions – Disease control in Canola**). Will reduce lodging and stem canker from Blackleg. A follow up application may be required at green bud stage in high disease risk situations or where an effective Blackleg seed treatment has not been used. |
| | | Sclerotinia Stem Rot (*Sclerotinia sclerotiorum*) | | Apply TITAN Prothioconazole 480 SC Fungicide and TITAN Tebuconazole 430 SC Fungicide between 20 and 50% (full bloom) flowering. For best results apply as a preventative application at 20-30% flowering prior to significant disease expression (refer to **General Instructions – Disease control in Canola**).<br>Good coverage throughout the entire canopy is essential. Using a water rate at the higher end of the range (i.e. 100L/ha for ground application and 30L/ha for aerial application) will improve spray coverage. Apply the higher rate under high disease pressure. |
| Pyrethrum | VIC, TAS only | Ray Blight (*Phoma ligulicola*), Sclerotinia Crown Rot (*Sclerotinia minor, S. sclerotiorum*) | 490mL/ha TITAN Tebuconazole 430 SC + 440mL/ha TITAN Prothioconazole 480 SC | Apply as part of a preventative spray program at flowering. Apply in rotation with other control measures, under direction of Pyrethrum advisers. The addition of an adjuvant is not required in Pyrethrum. |

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

**WITHHOLDING PERIODS:**
**Bananas, Avocados: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.**
**Beans, Peas: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.**
**DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 3 DAYS AFTER APPLICATION.**
**Cereals: DO NOT HARVEST FOR 5 WEEKS AFTER APPLICATION.**
**DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS 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.**
**DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 21 DAYS AFTER APPLICATION.**
**Sugarcane: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.**
**DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 4 WEEKS AFTER APPLICATION.**
**Grapevines: DO NOT HARVEST FOR 8 WEEKS AFTER APPLICATION.**
**Lettuce: DO NOT HARVEST FOR 5 WEEKS AFTER APPLICATION.**



TITAN AG CROP PROTECTION

**GENERAL INSTRUCTIONS**

**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 TITAN Tebuconazole 430 SC Fungicide sprays. The inclusion of wetting agents is known to cause phytotoxicity to young fruit.

**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 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.

**Yield potential:** Crops with potential yield under 2t/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 3t/ha.

**SPRAY TIMINGS FOR STRIPE RUST CONTROL**

Obtain advisory literature from Department of Agriculture for classification of resistant and susceptible varieties. In South Australia, consult Plant Protection Note PPN 21. In other states 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 sign of infection, apply a spray within one week. DO NOT delay.

**Adult infections – moderately susceptible varieties:** When approximately 15 to 20 leaves out of 100 leaves show first sign 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.

**RESISTANCE MANAGEMENT RECOMMENDATION – PEANUTS**

Apply no more than 3 consecutive sprays of DMI fungicide (eg TITAN Tebuconazole 430 SC Fungicide) before switching to a non-DMI fungicide. Apply no more than 5 DMI sprays per season.

**TANK MIX USE WITH TITAN PROTHIOCONAZOLE 480 SC FUNGICIDE**

If tank mix with TITAN Prothioconazole 480 SC Fungicide, observe all directions, precautions and limitations on TITAN Prothioconazole 480 SC Fungicide.

**MIXING**

Prior to pouring, shake container vigorously, then add the required quantity of TITAN Tebuconazole 430 SC 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 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 the 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 the 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 can then be calculated in the following way:

EXAMPLE ONLY

1. Dilute spray volume as determined above: For example 1500L/ha.
2. Your chosen concentrate spray volume: For example 500L/ha.
3. The concentration factor in this example is: 3x (ie 1500L ÷ 500L = 3).
4. If the dilute label rate is 30mL/100L, then the concentrate rate becomes 3 x 30, that is 90mL/100L of concentrate spraying.

The chosen spray volume, amount of product per 100L of water and the sprayer set up and operation may need to be changed as the crop grows.

DO NOT use a concentrate rate higher than that specified in the Critical Comments. For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

**TANK MIX USE WITH TITAN PROTHIOCONAZOLE 480 SC FUNGICIDE**

If tank mixing with TITAN Prothioconazole 480 SC Fungicide, observe all directions, precautions and limitations on TITAN Prothioconazole 480 SC Fungicide Label. See below for more details.

**Foliar diseases on cereal crops**

Monitor the crop regularly for symptoms of disease. Generally spray at the first sign of disease, although this will depend on factors such as expected weather conditions and the particular crop variety resistance. Refer to Directions For Use for particular disease recommendations. Up to two sprays of TITAN Tebuconazole 430 SC with TITAN Prothioconazole 480 SC Fungicide may be applied per season to the crop. Ensure good coverage of all susceptible plant parts.

**Disease control in Oats**

**Caution:** Application of tebuconazole (present in the tank mix of TITAN Tebuconazole 430 SC Fungicide with TITAN Prothioconazole 480 SC Fungicide) to some varieties of Oats may result in early senescing and bronzing of leaves. Varieties most at risk may also exhibit this trait under various stress conditions not related to fungicide sprays. Mitika variety of Oats has been identified as being susceptible to this condition when tebuconazole is applied, although other varieties may also be susceptible. The potential disease control to be achieved by using TITAN Tebuconazole 430 SC Fungicide with TITAN Prothioconazole 480 SC Fungicide in Mitika Oats should be weighed against the risk of crop damage. For further information on Oat tolerance contact TITAN AG Pty Ltd.

**Disease control in Canola**

**Blackleg:** Higher Blackleg risk can be expected in higher rainfall districts (above 500mm annual rainfall), where crops are grown within 500m of a previous year's stubble and in later sown crops (May to August). Other factors will also increase the risk of Blackleg infection, including the intensity of Canola cropping in a district, rainfall before sowing and the frequency of growing the same Canola cultivar. Consult industry guidelines for more detailed assessment of Blackleg risk in specific situations. Up to two sprays of a tank mix of TITAN Tebuconazole 430 SC Fungicide with TITAN Prothioconazole 480 SC Fungicide may be applied per season to the crop.

**Sclerotinia:** The tank mix of TITAN Tebuconazole 430 SC Fungicide with TITAN Prothioconazole 480 SC Fungicide is most effective when application is made prior to conditions conducive to Sclerotinia infection. Infection and disease development are most conducive in warmer winter or spring conditions with extended periods of leaf wetness due to rainfall, dew and high humidity. Sclerotinia is most likely to develop where day temperatures are warmer coinciding with a saturated soil profile and rainfall events. Refer also to industry guidelines for advice on conditions under which Sclerotinia are most likely to develop. Control of Sclerotinia Stem Rot is more effective in crops which have a uniform flowering. Uneven flowering (eg. caused by staggered germinations) makes optimum spray timing difficult and two sprays may be required in these crops.
Generally a single application of the tank mix of TITAN Tebuconazole 430 SC Fungicide with TITAN Prothioconazole 480 SC Fungicide at 20 to 30% flowering will control Sclerotinia in crops with a short flowering interval. Crops with an extended flowering period may require a second application prior to 50% flowering (full-bloom) to adequately control Sclerotinia if conditions late in the season are conducive to development of disease. Length of protection may be reduced in bulky crops where coverage is difficult and where there is growth dilution of the fungicide. For optimum protection, application should be directed to obtain coverage on petals, leaves and stems.

**Disease control in Pyrethrum:** Apply as instructed by the Pyrethrum adviser.

**USE OF ADJUVANT**

Depending on the disease that is to be treated in the crop, some benefit in efficacy may be gained from addition of an appropriate adjuvant to the spray mixture. Follow these guides when deciding on the addition of an adjuvant to the tank mixture prior to spraying:



TITAN AG CROP PROTECTION

| Adjuvant for use in tank mixes with TITAN Prothioconazole 480 SC | | |
|---|---|---|
| **Disease** | **Addition of adjuvant** | |
| | TITAN Tebuconazole 430 SC (75mL/ha) + TITAN Prothioconazole 480 SC (65mL/ha) | TITAN Tebuconazole 430 SC (150mL/ha) + TITAN Prothioconazole 480 SC (130mL/ha) |
| **Barley** | | |
| Net Form Net Blotch | Yes | Not required |
| Spot Form Net Blotch | Yes | Not required |
| Powdery Mildew | Not required | Not required |
| Leaf Scald | Yes | Not required |
| Leaf Rust | Yes | Not required |
| **Oats** | | |
| Stem Rust | N/A | Yes (TITAN Wetter 1000 Wetting Agent only) |
| Leaf Rust | N/A | Yes (TITAN Wetter 1000 Wetting Agent only) |
| Septoria Blotch | Yes | Not required |
| **Wheat** | | |
| Stripe Rust | Yes | Yes (TITAN Wetter 1000 Wetting Agent only) |
| Stem Rust | Yes | Yes (TITAN Wetter 1000 Wetting Agent only) |
| Leaf Rust | Yes | Yes (TITAN Wetter 1000 Wetting Agent only) |
| Yellow Leaf Spot | Not required | Not required |
| Septoria Nodorum – Glume Blotch | Yes | Not required |
| Powdery Mildew | Yes | Not required |
| Fusarium Head Blight – Head Scab | Yes | Yes (TITAN Wetter 1000 Wetting Agent only) |
| **Triticale** | | |
| Stripe Rust | Yes | Yes (TITAN Wetter 1000 Wetting Agent only) |
| **Canola** | TITAN Tebuconazole 430 SC (185mL/ha) + TITAN Prothioconazole 480 SC (165mL/ha) | TITAN Tebuconazole 430 SC (220mL/ha) + TITAN Prothioconazole 480 SC (200mL/ha) |
| Blackleg Sclerotinia Stem Rot | Not required | Not required |
| Pyrethrum | TITAN Tebuconazole 430 SC (490mL/ha) + TITAN Prothioconazole 480 SC (440mL/ha) | |
| Ray Blight | Not required | |

| Suitable adjuvants | Comments |
|---|---|
| TITAN Wetter 1000 Wetting Agent 0.25% | Can be used at all rates of TITAN Tebuconazole 430 SC + TITAN Prothioconazole 480 SC for aerial and ground application. |
| TITAN Duelling Spray Adjuvant 1% | For use with TITAN Prothioconazole 480 SC at 65mL/ha only. DO NOT use with TITAN Prothioconazole 480 SC at rates above 65mL/ha. DO NOT use for aerial application. |

**FUNGICIDE RESISTANCE WARNING**

GROUP **3** FUNGICIDE

TITAN Tebuconazole 430 SC 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 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 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, TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of TITAN Tebuconazole 430 SC Fungicide to control resistant fungi.

**PRECAUTIONS**

**Re-entry Period:** DO NOT allow entry into treated areas until spray has dried.

**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. Tank mixtures with TITAN Prothioconazole 480 SC Fungicide are very toxic to aquatic life.

**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 to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm 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.

**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 the prepared spray, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield or goggles. After each use and before eating, drinking or smoking, wash gloves, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing. When using together with other products, consult their label safety directions.

**FIRST AID**

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766.

**SAFETY DATA SHEET**

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Tebuconazole 430 SC Fungicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit 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.

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Harmful if swallowed. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects. Precautionary Statements: Do not handle until all safety precautions have been read and understood. Wear protective gloves and protective clothing. Wash all exposed external body areas thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. IF exposed or concerned: Get medical advice/ attention. Collect spillage. IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell. Rinse mouth. Store locked up.Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.



TITAN AG CROP PROTECTION