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# READ SAFETY DIRECTIONS BEFORE OPENING OR USING



# **COTTON DEFOLIANT**

# ACTIVE CONSTITUENTS: 240 g/L THIDIAZURON 120 g/L DIURON

# For the defoliation of cotton prior to harvest

# DIRECTIONS FOR USE (for use in Queensland, NSW and WA only)

#### RESTRAINTS

**DO NOT** apply Dropp UltraMAX following application of sodium chlorate, magnesium chlorate or diquat.

DO NOT apply if greater than 50 mm of rainfall is expected within 3 days of application.

**DO NOT** apply when there are aquatic and wetland areas including aquacultural ponds or surface streams downwind from the application area; and within the mandatory no spray zone shown below.

#### Table 1: Diuron use with FINE spray droplet size classification (ASAE S572 definition)

| FOR AERIAL APPLICATION – TERRESTRIAL VEGETATION PROTECTION |                     |            |  |
|--|---------------------|------------|--|
| WIND SPEED RANGE AT TIME OF APPLICATION                    | DOWNWIND RISK AREA  |            |  |
|  | FIXED WING AIRCRAFT | HELICOPTER |  |
| 3 to 8 kilometres per hour                                 | 250 metres          | 180 metres |  |
| 9 to 14 kilometres per hour                                | 350 metres          | 300 metres |  |
| 15 to 20 kilometres per hour                               | 450 metres          | 300 metres |  |
| FOR GROUND APPLICATION                                     |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
| 3 to 20 kilometres per hour                                | 15 metres           |            |  |
| FOR AERIAL APPLICATION – AQUATIC PROTECTION                |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
|  | FIXED WING AIRCRAFT | HELICOPTER |  |
| 3 to 8 kilometres per hour                                 | 120 metres          | 100 metres |  |
| 9 to 14 kilometres per hour                                | 160 metres          | 120 metres |  |
| 15 to 20 kilometres per hour                               | 160 metres          | 120 metres |  |
| FOR GROUND APPLICATION                                     |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
| 3 to 20 kilometres per hour                                | 10 metres           |            |  |



Table 2: Diuron use with MEDIUM spray droplet size classification (ASAE S572 definition)

| FOR AERIAL APPLICATION – TERRESTRIAL VEGETATION PROTECTION |                     |            |  |
|--|---------------------|------------|--|
| WIND SPEED RANGE AT TIME OF APPLICATION                    | DOWNWIND RISK AREA  |            |  |
|  | FIXED WING AIRCRAFT | HELICOPTER |  |
| 3 to 8 kilometres per hour                                 | 60 metres           | 60 metres  |  |
| 9 to 14 kilometres per hour                                | 80 metres           | 60 metres  |  |
| 15 to 20 kilometres per hour                               | 80 metres           | 60 metres  |  |
| FOR GROUND APPLICATION                                     |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
| 3 to 20 kilometres per hour                                | 5 metres            |            |  |
| FOR AERIAL APPLICATION – AQUATIC PROTECTION                |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
|  | FIXED WING AIRCRAFT | HELICOPTER |  |
| 3 to 8 kilometres per hour                                 | 20 metres           | 20 metres  |  |
| 9 to 14 kilometres per hour                                | 40 metres           | 40 metres  |  |
| 15 to 20 kilometres per hour                               | 40 metres           | 40 metres  |  |
| FOR GROUND APPLICATION                                     |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
| 3 to 20 kilometres per hour                                | 5 metres            |            |  |

Table 3: Diuron use with COARSE spray droplet size classification (ASAE S572 definition)

| FOR AERIAL APPLICATION – TERRESTRIAL VEGETATION PROTECTION |                     |            |  |
|--|---------------------|------------|--|
| WIND SPEED RANGE AT TIME OF APPLICATION                    | DOWNWIND RISK AREA  |            |  |
|  | FIXED WING AIRCRAFT | HELICOPTER |  |
| 3 to 8 kilometres per hour                                 | 20 metres           | 20 metres  |  |
| 9 to 14 kilometres per hour                                | 40 metres           | 40 metres  |  |
| 15 to 20 kilometres per hour                               | 40 metres           | 40 metres  |  |
| FOR GROUND APPLICATION                                     |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
| 3 to 20 kilometres per hour                                | 5 metres            |            |  |
| FOR AERIAL APPLICATION – AQUATIC PROTECTION                |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | FIXED WING AIRCRAFT | HELICOPTER |  |
| 3 to 8 kilometres per hour                                 | 20 metres           | 20 metres  |  |
| 9 to 14 kilometres per hour                                | 20 metres           | 20 metres  |  |
| 15 to 20 kilometres per hour                               | 20 metres           | 40 metres  |  |
| FOR GROUND APPLICATION                                     |                     |            |  |
| WIND SPEED AT TIME OF APPLICATION                          | DOWNWIND RISK AREA  |            |  |
| 3 to 20 kilometres per hour                                | 5 metres            |            |  |



# DIRECTIONS FOR USE TABLE (for use in Queensland, NSW and WA only)

| CROP/<br>SITUATION                        | DEFOLIATION<br>CONDITIONS  | RATE/HA  | CRITICAL COMMENTS   |
|---|--|--|---|
| Defoliation -<br>first or second<br>spray | <b>IDEAL</b><br>Conditions are hot to warm (30<br>to 35°C daytime temperature)<br>and the crop is ready to be<br>defoliated with natural<br>senescence already occurring.<br>Nitrogen and water are almost<br>depleted and there is little or no<br>top growth. A good fruit load is<br>set. | 75 to 100 mL<br>plus the label<br>rate indicated of<br>D-C-TRON <sup>®</sup><br>Cotton Spray Oil | <ul> <li>Apply the first spray to cotton which has been grown under good (non-stressed) conditions and is physiologically mature i.e., when the top harvestable boll is mature. Application made prior to boll maturity may result in yield and quality reductions.</li> <li>Use the higher rate for denser canopies or to provide a faster response.</li> <li>A second spray of either Dropp UltraMAX or an alternative harvest aid may be required 7 to 10 days later.</li> </ul> |
|   | <b>GOOD</b><br>Conditions are warm (25 to 30°C daytime temperature) and the crop is ready to be defoliated.<br>Nitrogen and water are low and there is little or no new growth and a good fruit load is set.   | 100 to 125 mL<br>plus the label<br>rate indicated of<br>D-C-TRON<br>Cotton Spray Oil             | Apply as above, but use these rates under good conditions.  |
|   | AVERAGE<br>Conditions are: (i) warm but<br>night temperatures are dropping<br>to 12°C (not below) and the crop<br>is physiologically ready to<br>defoliate or;<br>(ii) temperature is still hot/warm<br>but the crop is not physiologically<br>ready to senesce.                             | 125 to 150 mL<br>plus the label<br>rate indicated of<br>D-C-TRON<br>Cotton Spray Oil             | Apply as above, but use these rates under<br>average conditions.  |
|   | COLD<br>Night temperatures fall below<br>12°C and/or mean day/night<br>temperatures fall below 18°C.   | 150 to 200 mL<br>plus the label<br>rate indicated of<br>D-C-TRON<br>Cotton Spray Oil             | Apply as above, but use these rates under cold conditions.  |

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

#### WITHHOLDING PERIOD

Cotton Processing - NOT REQUIRED WHEN USED AS DIRECTED.

# Grazing/Cotton Trash - DO NOT GRAZE TREATED AREAS OR FEED COTTON TRASH TO LIVESTOCK.

# EXPORT OF TREATED PRODUCE

Growers should note that suitable MRLs or import tolerances may not be established in all markets for produce treated with Dropp UltraMAX. If you are growing produce for export, please check with Bayer CropScience Pty Ltd for the latest information on MRLs and import tolerances BEFORE using Dropp UltraMAX.

# **GENERAL INSTRUCTIONS**

Dropp UltraMAX is a liquid suspension formulation and should be shaken well before use. After treatment with Dropp UltraMAX, leaves fall while still green so that there is minimal dry leaf trash to contaminate fibre or interfere with harvesting. Maximum defoliation occurs 7 to 21 days following application of Dropp UltraMAX. Defoliation will be slower under cold conditions, or when the crop is not physiologically mature.

#### Note:

Rainfall within 24 hours after application will reduce the effectiveness of Dropp UltraMAX; re-treatment may be necessary.

Crops with moderate to high levels of nitrogen remaining in the soil are more prone to leaf freezing than crops that have depleted soil nitrogen.



# Mixing

Add the required amount of Dropp UltraMAX straight into the partly filled spray tank or mixing vat with agitator running, followed by D-C-TRON Cotton Spray Oil, and then the rest of the water. Keep mixture agitated while spraying. Use only freshly prepared sprays. **Do NOT store spray mixture overnight**.

When tank mixing with emulsifiable concentrates (ECs), add Dropp UltraMAX to the <sup>3</sup>/<sub>4</sub> filled spray tank or mixing vat and agitate thoroughly. With agitator running, add the EC product, followed by the D-C-TRON Cotton Spray Oil. Keep mixture agitated while spraying.

#### Application

Apply as a uniform spray ensuring thorough coverage of the whole plant.

# Equipment

#### Aircraft

Apply by aircraft in 20 to 40 L/ha spray mixture and ensure thorough coverage. A steady cross wind is recommended for best penetration. Do not exaggerate swath width.

#### **Ground Sprayers**

Standard boom sprayers are recommended and must be fitted with mechanical or by-pass agitation. Use sufficient water to obtain complete coverage of all leaves, i.e. at least 90 to 100 litres of water per hectare. Good coverage should be obtained with three or more nozzles per row depending upon crop height and canopy density. A nozzle configuration including droppers will give maximum coverage in dryland crops, taking particular care to ensure thorough but even coverage. Overdosing on some plant parts, e.g., caused by nozzle overlap along the sides of plants, may result in localised leaf freezing. If band spraying dryland crops, care should be taken when calculating the actual applied rate of Dropp UltraMAX per sprayed hectare.

#### **Important Notes on Cleaning Equipment**

Tank mixes of Dropp UltraMAX with organophosphates may form a residue in application equipment. While still fresh and moist, this residue is easily removed by flushing the entire system with a commercial tank cleaner.

Do NOT allow the spray solution to dry in the application equipment. Immediately following application, flush and rinse equipment (mix tanks, pumps, transfer lines, application tanks, sumps, booms, nozzles and all related equipment) thoroughly with detergent and water.

Should any residue of Dropp UltraMAX remain in the sprayer system, it may be released during subsequent applications of other products, causing damage to crops.

#### COMPATIBILITY

Dropp UltraMAX is compatible in tank mixtures with ethephon, dimethoate and parathion. Dropp UltraMAX is not compatible with Dropp Ultra Cotton Defoliant. For information on compatability with crop oils contact Bayer CropScience.

CAUTION: When tank mixed with glyphosate-based products, a higher proportion of cotton leaf may be retained (freezing) when used on conventional, Bollgard II and Liberty Link cotton. Do NOT use this mixture on stressed cotton, particularly drought-affected cotton. This applies in the case of conventional and genetically-engineered cotton varieties, including Bollgard II, Liberty Link and Roundup Ready® cotton varieties.

#### PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT allow spray drift to contact trees or crops other than cotton, as this product may injure or defoliate other crops, particularly citrus, grapevines and lettuce.

To help reduce drift damage potential:

- DO NOT apply Dropp UltraMAX by air when citrus in flush is within 8 km downwind from the point of application.
- DO NOT apply Dropp UltraMAX by air when within 800 m of lettuce.

In addition:

 DO NOT plant lettuce or carrots in cotton fields where Dropp UltraMAX has been applied within the previous 9 months.



- DO NOT plant legumes, lucerne, other root crops or leafy vegetables (besides those noted above) in cotton fields where Dropp UltraMAX has been applied within the previous two months.
- DO NOT plant small grains, sorghum or corn in cotton fields where Dropp UltraMAX has been applied within the previous two weeks.

# PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

#### STORAGE AND DISPOSAL

Keep out of reach of children. Store in the closed, original container in a dry, cool, well-ventilated area out of 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. Do not re-use empty container for any other purpose.

# SAFETY DIRECTIONS

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 (or equivalent clothing), a washable hat and elbow length PVC gloves. Wash hands after use. After each days use, wash gloves and contaminated clothing.

# FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (telephone 13 11 26).

#### SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet, which can be obtained from www.crop.bayer.com.au.

# **EXCLUSION OF LIABILITY**

This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

Dropp<sup>®</sup> and Liberty Link<sup>®</sup> are Registered Trademarks of the Bayer Group. UltraMAX<sup>™</sup> is a Trademark of Bayer.

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

APVMA Approval No.: 59777/56299

#### GHS STATEMENTS

•Suspected of causing cancer. •May cause damage to organs through prolonged or repeated exposure.

•Do not handle until all safety precautions have been read and understood. •Do not breathe spray mist. •IF exposed or concerned: Get medical advice/attention. •Store locked up.