The miracles of science™

DuPont™ Titus®

herbicide

Technical Information

Active Constituent:
250 g/kg RIMSULFURON

Pack Sizes:
200 g

GROUP	B	HERBICIDE

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

For the suppression of Blackberry Nightshade and control of certain broadleaf weeds in tomatoes as per the Directions for Use table.

SAFETY DIRECTIONS
Will irritate the eyes. Avoid contact with eyes. When opening the container and preparing the spray wear face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use wash face shield or goggles.

FIRST AID
If poisoning occurs, contact a doctor or Poisons Information Centre (ph 13 11 26). For further information refer to the Material Safety Data Sheet.

GENERAL INSTRUCTIONS

DuPont Titus® herbicide is for selective post emergent control of certain broadleaf weeds in tomatoes.
Best results are obtained when DuPont Titus® herbicide is applied to young actively growing weeds. The degree of control and duration of effect are dependent on rate used, sensitivity and size of target weeds and environmental conditions at the time of and following application.
DuPont Titus® herbicide stops growth of susceptible weeds rapidly. However, typical symptoms of dying weeds (chlorosis or discolouration) may not be noticeable for 1 to 3 weeks after application depending on the environmental conditions and susceptibility. Warm, moist conditions following treatment promote the activity of DuPont Titus® herbicide, while cold, dry conditions delay activity. Weeds hardened-off by cold weather and/or drought stress will be less susceptible.
A vigorously growing crop will aid weed control by shading and providing competition to weeds.

RESISTANT WEEDS WARNING

GROUP	B	HERBICIDE

DuPont Titus® herbicide is a member of the sulfonylurea group of herbicides. DuPont Titus® herbicide has the inhibitor of acetolactate synthase (ALS) mode of action. For weed resistance management DuPont Titus® herbicide is a Group B herbicide.

Some naturally-occurring weed biotypes resistant to DuPont Titus® herbicide and other ALS herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by DuPont Titus® herbicide or other ALS herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, DuPont accepts no liability for any losses that may result from failure of DuPont Titus® herbicides to control resistant weeds.

Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be taken to prevent seed set of these survivors.

DO NOT use an ALS inhibitor herbicide against the same weed in the crop following the use of DuPont Titus® herbicide alone either as a fallow or pre-crop treatment or post emergent treatment.

Avoid the prolonged use of ALS inhibitor herbicides on the same weed population.
If the user suspects that an ALS inhibitor resistant weed is present, DuPont Titus® herbicide or other ALS inhibitors herbicides recommended for the control of that weed should not be used.

Strategies to minimise the risk of herbicide resistance are available. Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local DuPont Representative.

Crop Safety
Crop stress factors that occur during, prior to, or after the application may cause, temporary chlorosis (lime green colour) to occur. Symptoms usually disappear within 5 to 15 days. Drought, frost, cold temperatures, high temperatures, or extreme temperature variations can be stress factors. To minimise the potential for temporary chlorosis, it is recommended that DuPont Titus® be applied only if there have been at least 3 successive days of sunny weather prior to application.

Tomato varieties may differ in their response to various herbicides. When using DuPont Titus® for the first time on a particular variety, limit the initial use to a small area. If no symptoms of crop injury occur 7 days after treatment, the balance of the area can be treated.

Sequential Applications
Annual weeds at times may have multiple flushes of seedlings or treated perennials may sometimes regrow from underground stems or roots, depending on rainfall and other environmental conditions. To maximise control of such weeds, it is necessary to use a sequential application of DuPont Titus® in which the first application goes on early followed by a second application 7 days later.

Cultivation
In areas where cultivation is used, the ideal timing for cultivation is 10 to 14 days after the DuPont Titus® application.

SPRAY PREPARATION
DuPont Titus® herbicide is a dry flowable formulation to be mixed with water and applied as a spray. Partially fill the spray tank with water. Using the Titus® measuring cone provided, measure the amount of DuPont Titus® herbicide required for the area to be sprayed. Add the correct amount of DuPont Titus® herbicide to the spray tank with the agitation system engaged. Top up to the correct volume with water. THE MATERIAL MUST BE KEPT IN SUSPENSION AT ALL TIMES BY CONTINUOUS AGITATION.

In tank mixes, DuPont Titus® herbicide must be in suspension before adding the companion herbicide or surfactant/wetting agent.

COMPATIBILITY
DuPont Titus® herbicide is compatible with DuPont Lexone® DF® herbicide and may be applied to tomatoes for broader spectrum weed control on weeds such as Fat hen, Hogweed (Wireweed), and Pigweed. Refer to the DuPont Lexone® DF® label for Directions for Use. However, when DuPont Titus® is tank mixed with Lexone® DF® reduced efficacy on Barnyard grass can be expected. In cases where Barnyard grass is a major weed then an initial application of DuPont Titus® followed by a tank mix with Lexone® DF® may be desirable. Consult a DuPont representative for further information or advice.

DuPont Titus® is compatible with methomyl formulations, when DuPont Titus® is tank mixed with Lexone® DF® however some temporary chlorosis may be experienced with liquid formulations. DuPont Titus® is compatible with synthetic pyrethroid insecticides.

DO NOT mix DuPont Titus® with organophosphate insecticides, or fungicides. Allow 7 days between application of DuPont Titus® and a treatment using these products.

Use of Surfactant/Wetting Agent
Always add non-ionic surfactant (1000 g/L - non buffering type) at 250 mL/100 L (0.25 % v/v) of final spray volume. The addition of crop oil concentrate may result in crop injury.

Ground Spraying
Use a boom spray properly calibrated to a constant speed and rate of delivery to ensure thorough coverage and a uniform spray pattern. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping. Apply a minimum of 50 L prepared spray/ha.
DO NOT apply DuPont Titus® by air.

Sprayer Cleanup
To avoid subsequent injury to crops immediately after spraying thoroughly remove all traces of DuPont Titus® herbicide from mixing and spray equipment as follows:
1. Drain tank, then flush tank, boom and hoses with clean water for a minimum of 10 minutes.
2. Fill the tank with clean water then add 300 mL household chlorine bleach (containing 4 % chlorine) per 100 L of water. Flush through boom and hoses then allow to stand for 15 minutes with agitation engaged, then drain.
3. Repeat step 2.
4. Nozzles and screens should be removed and cleaned separately. To remove traces of chlorine bleach, rinse the tank thoroughly with clean water and flush through hoses and boom.

CAUTION: DO NOT use chlorine bleach with ammonia. All traces of liquid fertiliser containing ammonia, ammonium nitrate or ammonium sulphate must be rinsed with water from the mixing and application equipment before adding chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odour which can cause eye, nose and lung irritation. **DO NOT** clean equipment in an enclosed area.

Crop rotation recommendations
The amount of DuPont Titus® which may remain in the soil is dependent on the rate used, soil pH and organic matter content, time elapsed since DuPont Titus® application, and climatic and weather factors. The most important breakdown factor is the amount of moisture (rainfall or irrigation) from time of the last application of DuPont Titus® to planting of the follow-on crop.
In the case of crop failure only tomatoes or potatoes can be resown.
Land previously treated with DuPont Titus® herbicide may be sown to any of the specified crops after the interval indicated in the following table:

Crops	Minimum interval
Wheat, barley, oats	18 months
Sunflower, maize, zucchini	23 months

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS
This product may cause injury to or loss of trees and other vegetation, including aquatic plants. **DO NOT** apply spray or drain or flush equipment on or near trees or other plants or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots. **DO NOT** apply under meteorological conditions or from spraying equipment which could be expected to cause spray to drift onto adjacent areas, including crops, non-target plants or aquatic areas, as injury may occur.

PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

This product may affect algae and aquatic plants.

DO NOT contaminate any waterway or body of water by spraying, cleaning of equipment or disposal of concentrated product, spray mix or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. **DO NOT** store for prolonged periods in direct sunlight. Keep from contact with fertilisers, insecticides, fungicides and seeds. **DO NOT** re-use container. 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, vegetation and roots. Empty containers and product should not be burnt.

IN A MEDICAL EMERGENCY CALL
1800 674 415 All hours

NOTICE TO BUYER

To the extent permitted by law all conditions and warranties and statutory or other rights of action which buyer or any other user may have against DuPont or Seller are hereby excluded. DuPont hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information or advice provided by DuPont or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. DuPont's liability shall in all circumstances by limited to replacement of the product or a refund of the purchase price paid therefore.

APVMA Approval number: 49213/0101

DIRECTIONS FOR USE

RESTRAINTS

DO NOT apply to plants wet with rain or dew.

DO NOT apply if rainfall is expected within 2 hours.

DO NOT apply to weeds that are not actively growing or stressed by any cause such as adverse weather conditions, drought, waterlogging. Broadleaf weeds under stress frequently become less susceptible to herbicide activity. This may result in an incomplete kill or only growth suppression.

DO NOT store a suspension of DuPont Titus® for more that two days, otherwise significant breakdown may occur.

DO NOT store tank mixes of DuPont Titus®.

DO NOT apply DuPont Titus® to greenhouse tomatoes.

SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Tomato (Processing)	Blackberry Nightshade (*Solanum nigrum*) (Suppression only)	60 g/ha followed 7 days later by 60 g/ha	Apply when the Blackberry Nightshade are at the cotyledon to 2 leaf stage. Split applications are necessary for maximum control. Good suppression rather than total kill will result.
	Caltrop (*Tribulus terrestris)* Charlock (*Sinapis arvensis)* Heliotrope (*Heliotropium europaeum)* Musky Crowfoot (*Erodium moschatum*) Paddymelon (*Cucumis myriocarpus)* Sub-Clover (*Trifolium subterraneum)*		Apply when weeds are at the cotyledon to 4 leaf stage.
Always add non-ionic surfactant (1000 g/L – non buffering type) at 250 mL/100 L (0.25 % v/v) of final spray volume. The addition of crop oil concentrate may result in crop injury.			

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

WITHHOLDING PERIODS

TOMATOES:

DO NOT APPLY LATER THAN 4 WEEKS BEFORE HARVEST

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 6 WEEKS AFTER APPLICATION

Du Pont (Australia) Limited
168 Walker Street
North Sydney NSW 2060
Phone: (02) 9923 6111 or 1800 257 169
http://www.dupont.com.au/ag/