DuPont™ Granstar®
herbicide

Technical Information

HERBICIDE DRY FLOWABLE

Active Ingredient: 750 g/kg TRIBENURON-METHYL in the form of a water dispersible granule.

Pack Sizes: 200 g, 1 kg

ECOTOXIC

FOR CONTROL OF BROADLEAF WEEDS IN WHEAT, BARLEY AND OATS, AND FOR USE IN CONSERVATION TILLAGE.

Registered pursuant to the ACVM Act 1997 No.P3873
See www.foodsafety.govt.nz for registration conditions.
Approved pursuant to the HSNO Act 1996 Code HSR000234

READ LABEL BEFORE MIXING AND APPLYING

HAZARD CLASSIFICATION
6.3B, 6.4A, 6.5B, 9.1A, 9.2A

APPROVED HANDLER
This product must be under the control of an approved handler during use.
Use of this product in any manner contrary to this label may be an offence under the HSNO Act.

HARMFUL - May cause mild skin irritation and sensitisation from prolonged skin contact. May cause eye irritation.

ECOTOXIC
Very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container. Very toxic to the soil environment.

DO NOT allow spray drift outside the target area.

PRECAUTIONS
Keep out of reach of children.
Avoid skin and eye contact. Avoid breathing dust or spray mist. DO NOT eat, drink or smoke while using. When mixing or applying wear waterproof gloves, hat, overalls and footwear. Wash hands and face before meals and after work.
Store in original container, tightly closed and under lock and key. Store with Class 1, 2, 3.2, 4 or 5 substances or feed, seeds or foodstuffs. Stores containing more than 100 kg of this product require secondary containment and are subject to signage. When stored appropriately, this product should show no significant degradation for 2 years from the date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

DISPOSAL
Container disposal: Triple rinse empty container and add rinsate to spray tank. Burn, if circumstances, especially wind direction permit, otherwise bury in an approved landfill. DO NOT reuse container. Dispose of this product only by using according to this label. Always follow local authority requirements

FIRST AID
If swallowed DO NOT induce vomiting. For advice, contact the National Poisons Centre 0800 POISON (0800 764766) or a doctor immediately. If spilt on skin, remove contaminated clothing and wash affected areas of skin. DO NOT SCRUB THE SKIN. If concentrate is splashed in eyes, flush with running water for at least 15 minutes. Take to hospital without delay. If inhaled, remove to fresh air. Take to hospital without delay.

SPILLAGE
Wear appropriate protective clothing. Shovel or sweep up and dispose of waste safely in an approved landfill.

Beware: Apply this product carefully. Spray drift may cause serious damage to other desirable plants.
GENERAL INSTRUCTIONS
Granstar® is a dry flowable granule to be mixed in water and applied as a spray for selective post-emergence control of weeds in wheat, barley and oats.

It is non-corrosive to equipment, non-flammable and non-volatile. Best results are obtained when Granstar® is applied to young, actively growing weeds.

Granstar® stops growth of susceptible weeds. However, typical symptoms (discolouration) of dying weeds may not be noticeable for 1-3 weeks after application.

Warm moist conditions following treatment promote the activity of Granstar® while cold, dry conditions delay the activity of Granstar®. **DO NOT** apply Granstar® to crops that are stressed by severe weather conditions such as drought, frost, water saturated soil, disease or insect damage as crop injury may result. Severe winter stress, drought, disease or insect damage following application may also result in crop injury.

DIRECTIONS FOR USE
Mixing Instructions
Using the graduated measuring cylinder provided, measure the correct amount of Granstar® required for the area to be sprayed and add to the required volume of water. Continuous agitation is required to keep the product in suspension. Use Granstar® spray mixtures within 24 hours of preparation, as product degradation may occur.

Surfactant
Always add a non-ionic surfactant at the manufacturer’s recommendations unless mixing with another product which contains surfactant.

Spray Volumes
Use a well maintained, accurately calibrated sprayer applying a minimum of 60 litres per hectare. Avoid overlapping and shut off spray booms while starting, slowing or stopping, or injury to the crop may result.

Rates of Application. Wheat, Barley, Oats.
Apply 15 grams Granstar® per hectare plus surfactant at any time after the crop is in the two leaf stage, but before the ‘boot’ stage. For best results apply to small actively growing weeds (less than 5 cm tall or across) before crop canopy closes in. Where treatment is delayed or where weeds are not actively growing due to adverse conditions, weeds may only be stunted or suppressed. The following weeds are controlled by Granstar®. Californian Thistle*, Scotch Thistle, wild turnip, chickweed, shepherd’s purse, fathen, spurrey, scarlet pimpernel, willow weed.

*Delay application until after the majority of thistles have emerged and are at the rosette stage (10 - 15 cm tall). Thistles which emerge after spraying will not be controlled.

Apply 25 g per ha plus surfactant to control the above weeds and in addition redroot, sheep’s sorrel, twin cress, wire weed.

Tank Mixtures - Barley Only
Granstar® at 15 g/ha may be tank mixed with Cougar or Combine. Refer to the specific product label for rates and recommendations.

Weeds not Controlled
Cleavers, speedwells, wild oats. If these weeds are a problem add a herbicide registered for the control of these species. **DO NOT** spray Granstar® on cereals undersown with lucerne or white clover.

Conservation Tillage
For control of certain broadleaf weeds including clovers, sheep’s sorrel, yarrow and ragwort, use DuPont Granstar® herbicide at 40 g per hectare in combination with glyphosate (at label rates) plus Input® at 0.1% v/v (i.e. 100 mL/100 L) before the crop is sown.

The DuPont Granstar® herbicide treated area may be replanted to brassicas, cereals, maize, new pastures, peas, potatoes and squash 14 days after application. **DO NOT** sow brassica species into DuPont Granstar® herbicide treated areas if soil pH exceeds 6.5. Tolerance of other crops (grown through to maturity) should be determined on a small scale before sowing into larger areas.

**DO NOT** apply DuPont Granstar® herbicide within 2 months after a lime application. Lime may be applied 14 days after Granstar® has been applied.

Withholding period: A withholding period for grazing is not required when used as directed. It is recommended however, that grazing or cultivation of treated areas be delayed 3 days as part of good agricultural practice.

Caution: Ragwort plants may become more palatable following spraying and stock should be removed until the treated plants brownout.

Compatibility
Experience so far suggests that Granstar® is compatible with commonly used cereal herbicides, insecticides and fungicides.

Sprayer Cleanup
To avoid subsequent injury to crops other than wheat, barley or oats, immediately after spraying thoroughly remove all traces of Granstar® 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 and add 1 litre chlorine bleach (containing 3% sodium hypochlorite) per 100 litres of water. Flush throughout with agitation; 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.

RECORD KEEPING
Records of use, as described in The New Zealand Management of Agrichemicals (NZS8049) must be kept.
RESISTANT WEEDS WARNING
Granstar® herbicide is a member of the sulfonylurea group of herbicides. Naturally occurring biotypes resistant to sulfonylurea herbicides are known to exist. These resistant weeds will not be controlled by Granstar® or other sulfonylurea herbicides. To prevent or delay the development of resistant weeds use Granstar® in tank mixes (if appropriate) and/or rotations with herbicides having different modes of action effective on the same weed species. Since the occurrence of resistant weeds is difficult to detect prior to use, DuPont accepts no liability for any losses that may result from the failure of Granstar® to control resistant weeds.

IMPORTANT
Injury to or loss of desirable trees or other plants may result from failure to observe the following. **DO NOT** apply or drain or flush equipment on or near desirable 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** use on lawns, walks, driveways, tennis courts or similar areas. Prevent drift of dry powder or spray to desirable plants. Keep from contact with fertilizers, insecticides, fungicides and seeds.

NOTICE TO BUYER
DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use of application, all of which are beyond the control of DuPont. To the extent permitted at law DuPont shall not be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer.

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