

POISON

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

Nufarm
GRUNT 750 WDG

Herbicide

ACTIVE CONSTITUENT: 750 g/kg HEXAZINONE

GROUP **C** HERBICIDE

For the control of certain sedges, perennial grasses, broadleaf and woody weeds in *Pinus radiata* forests, and industrial weed control situations.

**IMPORTANT: READ THE ATTACHED LEAFLET
BEFORE USING THIS PRODUCT.**

NOTICE (NSW ONLY)

WITH THE EXCEPTION OF REGROWTH LESS THAN 5 YEARS OLD AND UNDER THREE METRES TALL, THE CLEARING OF MORE THAN FIVE HECTARES OF TREES BY AERIAL OR GROUND APPLICATION IN NSW IS PROHIBITED, UNLESS SPECIFICALLY AUTHORISED BY PERMIT. THIS RESTRICTION DOES NOT APPLY TO WOODY WEEDS AND STEM INJECTION OF TREES.

Net Contents: 10 kg

Nufarm Australia Limited
ACN 004 377 780
103-105 Pipe Road
Laverton North Victoria 3026
Tel: (03) 9282 1000
Fax: (03) 9282 1001



STORAGE AND DISPOSAL

Store in the closed, original container in a dry cool, well-ventilated area out of direct sunlight. DO NOT store or expose product to wet conditions. Keep away from contact with fertilizers, fungicides and seeds. Single rinse before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. Puncture or shred and bury empty bags in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty bags and product should NOT be burnt.

SAFETY DIRECTIONS

Harmful if swallowed. Will damage eyes. Will irritate the skin. Avoid contact with eyes and skin. DO NOT inhale dust. When using the product, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. 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, goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre, Phone Australia 13 11 26. If in eyes, hold eyes open, flood with water for at least 15 minutes, and see a doctor.

MATERIAL SAFETY DATA SHEET

For further information refer to the Material Safety Data Sheet (MSDS), which can be obtained from your supplier or from Nufarm website - www.nufarm.com.au

CONDITIONS OF SALE

"Any provisions or rights under the Trade Practices Act 1974 or relevant state legislation which cannot be excluded by those statutes or by law are not intended to be excluded by these conditions of sale. Subject to the foregoing, all warranties, conditions, rights and remedies, expressed or implied under common law, statute or otherwise, in relation to the sale, supply, use or application of this product, are excluded. Nufarm Australia Limited and/or its affiliates ("Nufarm") shall not accept any liability whatsoever (including consequential loss), or howsoever arising (including negligence) for any damage, injury or death connected with the sale, supply, use or application of this product except for liability which cannot be excluded by statute."

APVMA Approval No.: 62549/10kg/0808

Date of Manufacture:

Batch No.:

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DIRECTIONS FOR USE

Pinus radiata plantations

GROUND AND AERIAL APPLICATION

Situation/Crop	Weeds Controlled	State	Rate/ha	Critical Comments
Pre-planting SITE PREPARATIONS Pasture Sites Native Woodland, Heath & Second Rotation Sites - long term control	ANNUALS: Flatweeds, Rye grasses, Clovers	Qld, NSW, ACT, Vic, Tas, WA only	2.5 kg	Apply any time from March through to July. It is recommended to delay planting until planting lines become clearly visible, i.e. when effects of the product are evident. Machine planting is not recommended, as soil disturbance will reduce the residual activity. For best results on Woody and Hard to kill weeds, application should be made after weed emergence. Silver Wattle exceeding 1.5m – suppression only
	HARD-TO-KILL PERENNIALS: Wallaby Grass, Serrated Tussock, Sorrel, Dandelion, Kangaroo Grass (Suppression Only)		3.5 to 5 kg	
	WOODY & HARD-TO-KILL WEEDS: Bracken, Varnish Acacia (<i>Acacia verniciflua</i>), Sunshine Acacia (<i>Acacia botrycephala</i>), Silver Wattle (<i>Acacia dealbata</i>), Hop Goodenia (<i>Goodenia ovata</i>), Common Cassinia (<i>Dogwood Vic only</i>) (<i>Cassinia aculeata</i>)		5 kg	
Post-planting TREE RELEASE APPLICATION Pasture Sites Native Woodland, Heath & Second Rotation Sites - long term control Loamy Sands & Sandy Soils	ANNUALS: See: "Pre-planting SITE PREPARATIONS - Pasture Sites"	NSW, ACT, Vic, Tas, SA, WA only	2 kg + 7.5L Nu-trazine 600 or 5 kg Nu-trazine 900 DF	Foliar Spray Applications Apply during July, August, September or October. Allow 8 weeks after transplanting before treatment. See below Avoid use on <i>Pinus radiata</i> suffering from stress (such as drought or water logging) or when temperature exceeds 25°C. Avoid use on shale soils and exposed subsoils. Apply during August, September, and October. Allow 8 weeks after transplanting before treatment. * DO NOT apply surfactant/wetting agent when spraying over <i>Pinus radiata</i> trees. Apply during August or September, October. Allow 8 weeks after transplanting before treatment. See above*.
	HARD-TO-KILL PERENNIALS: See: "Pre-planting SITE PREPARATIONS - Pasture Sites"			
	ANNUALS AND PERENNIAL WEEDS: See: "Pre-planting SITE PREPARATIONS - Pasture Sites"	Qld, NSW, ACT, Vic, Tas, WA only	3.5 to 5 kg	
	WOODY & HARD-TO-KILL WEEDS: See: "Pre-planting SITE PREPARATIONS - Native Woodland etc."		5 kg	

FORESTRY SPOTGUN

Situation/Crop	Weeds Controlled	State	Rate/ha	Critical Comments
Post-planting TREE RELEASE APPLICATIONS Pasture sites And Native Woodland, Heath & Second Rotation Sites	ANNUALS: Brome Grass, Capeweed, Chickweed, Clovers, Flatweeds, Rye grasses	Qld, NSW, ACT, Vic, Tas, WA only	6 or 12 mL of spray solution/pine	Mix 1 kg Nufarm GRUNT 750 WDG with 30 L water and apply amount shown/pine. Use the higher rates of Nufarm GRUNT 750 WDG: - when weed pressure is heavy. - when grasses are the major problem. - for longer term weed control and greater pine growth responses. Hold Forestry Spotgun® (fitted with 120° solid cone nozzle) over the pine (slightly off centre to the central header) with the nozzle tip 50 cm above the ground when making the application. Apply 1 to 4 months after pines have been transplanted into plantation.
	HARD-TO-KILL PERENNIALS: Dandelion, Docks, Paspalum, Ribwort/Plantain, Serrated Tussock, Snow Grass, Sorrel, Wallaby Grass, Yorkshire Fog Grass, Kangaroo Grass (Suppression Only)		10 or 12 mL of spray solution/pine	

INDUSTRIAL WEED CONTROL APPLICATIONS

GROUND APPLICATION

Situation/Crop	Weeds Controlled	State	Rate/ha	Critical Comments	
Commercial and industrial areas, rights of way, around agricultural buildings	ANNUALS WEEDS: Summer Grass, Barnyard, Grass, Love grass, Green Amaranth, Asthma Plant, Common Sida, Common Sow-thistle, Wild Oats, Soft Brome, Great Brome, Medics, Fleabanes, Paterson's Curse (Salvation Jane), Blackberry Nightshade	ALL STATES	4 to 6 kg	Foliar Spray Applications	Use the higher rates on heavy soils and soils high in organic matter or carbon; on light soils where rainfall is heavy or on dense established stands of hard to kill species such as paspalum, couch grass (<i>Cynodon dactylon</i>), nut grass and kikuyu.
	PERENNIAL WEEDS: Docks, Creeping Buttercup, Ribwort (plantain), Couch Grass (<i>Cynodon dactylon</i>), Paspalum, Nutgrass, Kikuyu, Artichoke Thistle, Rhodes Grass, Chicory, Flatweeds	Qld, NSW, ACT, WA only	6 to 8 kg		
		Vic, SA, Tas only	8 kg		
	<i>Parthenium hysterophorus</i>	Qld, NSW, ACT only	1 kg (Large areas)		
			2 g/10L/20 m ² (Small areas)		
Spiny Rush (<i>Juncus acutus</i>)	Vic only	120 to 180 g/100L	Gives complete eradication of mature plants only. Seedling plants should be controlled for up to 6 months.		

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

GENERAL INSTRUCTIONS

Nufarm GRUNT 750 WDG is an effective foliar contact and soil active residual herbicide.

Use sufficient water for thorough uniform coverage.

For best foliar and residual control, apply as a post-emergent spray during the periods of active plant growth and when the air temperatures are 25° C and above. Applications when vegetation is dormant, semi-dormant, under moisture stress or during the winter months may not be as effective.

In temperate winter rainfall areas where temperatures are generally below 25° C during the period of active plant growth, the foliar effect may be slow to appear. In these areas herbicide activity is more dependent on root absorption.

For residual control, sufficient rainfall is required after treatment to promote root absorption by the weeds. Results obtained may vary with the amount of chemical applied, rainfall, air temperature, soil type and other conditions.

All use rates of the product are expressed as overall rates. For band treatment use proportionately less, i.e. use one-third the overall rate when treating one-third of the area.

DO NOT apply Nufarm GRUNT 750 WDG during periods of intense rainfall, when wind speed exceeds 30 kph (for ground application) or when wind speed exceeds 20 kph (for aerial application).

On slopes of 20% to 30% apply Nufarm GRUNT 750 WDG by strip or spot application ONLY. On slopes greater than 30% apply by spot application ONLY.

RESISTANT WEEDS WARNING

GROUP C HERBICIDE

Nufarm GRUNT 750 WDG herbicide is a member of the Triazines group of herbicides. Nufarm GRUNT 750 WDG has the inhibitors of photosynthesis at photosystem II mode-of-action. For weed resistance management Nufarm GRUNT 750 WDG is a Group C Herbicide. Some naturally-occurring weed biotypes resistant to Nufarm GRUNT 750 WDG and other Group C herbicides may exist through 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 Nufarm GRUNT 750 WDG or other Group C herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Nufarm Australia Limited accepts no liability for any losses that may result from the failure of Nufarm GRUNT 750 WDG to control resistant weeds. Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be made to prevent seed set of the survivors. DO NOT make more than one application of a Group C herbicide in the same season.

If the user suspects that a Group C resistant weed is present, GRUNT 750 WDG or other Group C herbicides 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 Nufarm representative.

EQUIPMENT AND APPLICATION

Nufarm GRUNT 750 WDG Herbicide is a wettable granule formulation. The product is mixed with water and applied at recommended rates with either ground or aerial equipment (dependent on use pattern).

Partially fill the spray tank with water and add the correct amount of the product for the area to be sprayed with the agitation system engaged. Top up the correct volume with water, and for best results keep the spray solution agitated while spraying. THE MATERIAL MUST BE KEPT IN SUSPENSION AT ALL TIMES BY CONTINUOUS AGITATION. To prevent nozzle blockage, strainer and nozzle screens should be 50 mesh or coarser.

Pinus Radiata

Ground Application - Apply in 100 to 400 L/ha with a properly calibrated boom.

Forestry Spotgun - see Directions for Use - Critical comments.

Aerial Application - Apply a minimum of 20 litres water for every 1 kg of product used, eg. 5 kg in 100 litres of water per hectare.

Use a surfactant/wetting agent for pre-planting applications only, by either ground or aerial equipment. DO NOT add a surfactant if the spray is to be applied over the top of *Pinus radiata* trees.

A non-ionic surfactant/wetting agent (such as Chemwet 1000) may be added at the rate of 250-500 mL/100L of spray (for a surfactant containing 100% active constituent) for improved wetting.

INDUSTRIAL WEED CONTROL

Ground Application only - Apply in 100 to 400 L/ha with a properly calibrated boom or 2000-4000 L/ha with hand spray equipment.

A non-ionic surfactant/wetting agent (such as Chemwet 1000) may be added at the rate of 250-500 mL/100L of spray (for a surfactant containing 100% active constituent) for improved wetting.

CROP SAFETY

Because death or injury to trees may result, DO NOT apply after planting in the following situations:-

- a) On trees which show poor to vigour due to disease, or environmental factors such as drought, moisture stress or waterlogging;
- b) On poorly drained soils;
- c) On gravelly or rocky soils, and exposed subsoils.

EQUIPMENT CLEANUP

Thoroughly clean all traces Nufarm GRUNT 750 WDG Herbicide from application equipment immediately after use. Failure to remove residues may result in damage to sensitive plants in subsequent treated areas.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

The product may kill many trees and other desirable plants if not correctly applied.

DO NOT apply on or near desirable trees or other plants, or on areas where their roots may extend. As guidance this is two times their height, or more depending on the species and other conditions.

DO NOT apply in areas where a surface flow of water could wash the chemical into areas where roots of desirable trees or plants may extend.

DO NOT drain or flush spray equipment near desirable trees or in areas where their roots may extend.

DO NOT apply under windy conditions and in areas where spray drift could damage valuable plants.

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

PROTECTION OF LIVESTOCK

Keep stock away from treated areas.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

DO NOT apply within 25 m of a recognized waterway, or further if native riverbank vegetation may be damaged (see Protection of Native and other Non-target Plants).

STORAGE AND DISPOSAL

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