

DANGER: SKIN IRRITANT, ECOTOXIC
Read Label Before Use: Keep out of reach of children

DONAGHYS

Grunt[®] 600

Glyphosate

A form of Glyphosate, a non-residual herbicide for non-selective control of most annual and perennial weeds and a wide range of brush weeds in agriculture, horticulture, forestry, and industrial areas.

ACTIVE INGREDIENT: contains 600g/L Glyphosate as the potassium and triethanolamine salts in the form of a soluble concentrate.



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INSTRUCTIONS - Grunt® 600

DIRECTIONS FOR USE - READ ENTIRE BOOKLET BEFORE USING

Not to be applied onto or near water unless under the personal control of an Approved Handler.

- Donaghys Grunt® 600 is a foliar absorbed and translocated herbicide for control of emerged weeds only and is not residual.
- Donaghys Grunt® 600 can be deactivated by soil particles and / or hard water containing calcium salts. In such areas the use of an appropriate surfactant is recommended, please speak to your sales representative for information.
- Plants should be actively growing, free of stress with clean foliage at the time of spraying.
- The effects of Donaghys Grunt® 600 may not be apparent for 3 - 7 days depending on the weather conditions, weed species and the herbicide rate used. Some perennial weeds may not show effects for 14 or more days.
- Animal Safety: A withholding period is not required except for ragwort. It is recommended that grazing or cultivating treated plants is delayed for 1 day for annual weeds and 3 days for perennial weeds to ensure chemical absorption. For treated ragwort, stock should be removed until treated plants brown-out.
- Resistance to this herbicide may result from excessive use.
- This product must be under control of an Approved Handler when applied onto or near water.

WITHHOLDING PERIOD: Wheat, barley and oat grain: 7 days.

REGULATORY STATEMENTS: It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residue Levels for Agricultural Compounds.

TIME OF APPLICATION:

- Rainfastness: Do not spray if rain is likely within 1 hour. The addition of Donaghys Wetter Sticker organosilicone surfactant at label specified rates reduces the rainfree period to 30 minutes.
- Do not allow spray contact with non-target plants as severe injury may occur.
- For timing application instructions refer to the accompanying weed table.

EQUIPMENT:

- Apply using accurately calibrated and maintained equipment in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409).
- All spray equipment including pumps, spray tanks, lines and nozzles, and landing gear (aircraft) should be thoroughly washed with water after each day of spraying, preferably with a chemical residue remover.

MIXING:

- Half fill spray tank with clean water, add required amount of Donaghys Grunt® 600 then fill with clean water. A surfactant, such as Donaghys Wetter-Sticker, may be added at this stage at label specified rates to increase rate of uptake.
- Agitate well before spraying.
- When tank mixing with other chemicals, add Donaghys Grunt® 600 after other water soluble

IMPORTANT NOTICE - CONDITIONS OF SALE

ACCEPTANCE AND USE OF THIS PRODUCT WILL BE DEEMED TO BE ACCEPTANCE OF THESE CONDITIONS OF SALE.

Results from the use of this product may be affected by factors beyond Donaghys control. These factors include but are not limited to mixing, use, time of application, weather, crop, crop lifecycle and resistance to the active ingredient, even though the product is reasonably fit for its stated purpose and label directions have been followed. Donaghys will replace any defective product free of charge, but to the extent permitted by law all other warranties, representations, conditions or obligations whether imposed or implied by law or otherwise, and the manufacturer's and supplier's liability for any indirect special or consequential losses or damages of any kind arising out of the supply and/or use of this product, including where it arises out of negligence, are expressly excluded. **IN ANY EVENT, TO THE EXTENT PERMITTED BY LAW, THE MANUFACTURER'S AND SUPPLIER'S LIABILITY ARISING OUT OF THE SUPPLY AND OR USE OF THIS PRODUCT IS LIMITED TO THE AMOUNT PAID FOR THE SPECIFIC PRODUCT.**

Proper Shipping Name:

ENVIRONMENTALLY HAZARDOUS

SUBSTANCE, LIQUID, N.O.S. (contains Glyphosate 600 g/L, Cocamidopropyl dimethylamine < 10%).

UN number: 3082 DG Class: 9 Packaging Group: III

Registered pursuant to the ACVM Act 1997, No P008482

See www.foodsafety.govt.nz for registration conditions.

Approved pursuant to HSNO Act 1996, Approval No. HSR101004

See www.epa.govt.nz for approval controls.

ZPLAB838 SEP22 PN-030962-2 VER2

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REGISTERED TO AND MANUFACTURED BY:
DONAGHYS LTD.
PO BOX 20 449, CHRISTCHURCH NEW ZEALAND.
FREEPHONE: 0800 942 006, WWW.DONAGHYS.COM



GRUNT® 600

APPLICATION:

Boom equipment: Donaghys Grunt® 600 can be applied in spray volumes of up to 200 litres of diluted product per hectare using fan nozzles at pressures in the range of 200 - 280 kPa. Boom height should be set so a double overlap of nozzle pattern is achieved at the top of the target plant.

Aerial equipment: (Forest and non crop areas only) Donaghys Grunt® 600 can be applied by aircraft in spray volumes of up to 100 litres of diluted product per hectare. Increase spray volumes in hilly terrain to ensure maximum target contact. DO NOT use in intensive horticultural cropping areas.

Handgun and Knapsack: Ensure a fine spray pattern to give complete coverage. Use the minimum volume necessary to give complete and uniform coverage. Refer to weed control tables for use rates.

Wiper equipment: Mix only enough for immediate use, mixing 1 part Donaghys Grunt® 600 with 2 parts clean water. Plants must be clean and dry and the wiper fully saturated. Apply up and down slopes for effective applications. High weed density: reduce speed and apply twice in opposing directions.

USE SITUATIONS

SITUATION	CROP	COMMENTS
Drains and Waterways		Do not spray until 75% of the weed is above the water level. Do not allow submergences for 6 hours post spraying.
Forestry. For control of all listed weeds prior to planting of forest or nursery or around established trees.		Treat weeds as per Weed Table. Do not allow spray contact with established trees.
Industrial. As a knockdown or selective in spot spraying.		Treat weeds as per Weed Table.
Market Gardens. As a knock down prior to seeding, transplanting and after harvest clean-up	All vegetables	For best results do not disturb weeds by grazing or cultivation for 1 day post spraying of annual weeds and 10 days post spraying of perennial weeds. Cultivate within 21 days of spraying to ensure control. Do not sow until a satisfactory seed bed has been prepared. An appropriate residual herbicide can be used as a tank mix with Donaghys Grunt® 600.
Minimum Tillage. For total weed control prior to seeding	Cereal, pasture & Leguminous crops	For best results do not disturb weeds by grazing or cultivation for 1 day post spraying of annual weeds and 10 days post spraying perennial weeds. To ensure control and avoid respraying of newly germinated weeds, work sprayed area by full cultivation or the seeding operation within 3 weeks of spraying. Do not sow until a satisfactory seed bed has been prepared. For improved control of clover tank mix with an appropriate herbicide containing dicamba. Refer to the appropriate label for management considerations.

SITUATION	CROP	COMMENTS
Orchards and Vineyards: As a knockdown prior to establishment or where plants are 3 years old or over.	Apple, Citrus, Grapevines, Kiwifruit, Pear and Stonefruit	Use a directed or shielded spray. Spray before bloom stage of crop. DO NOT let spray contact any green foliage or new growth. Donaghys Grunt® 600 can be tank mixed with an appropriate herbicide for residual control.
Pasture seedhead suppression (unimproved pastures only)	Unimproved / native pastures	Use to delay the onset of reproductive growth, and maintain unimproved pasture in a vegetative growth phase. Treat in spring at early grass seedhead emergence, using rates of no more than 145mL/ha of Donaghys Grunt® 600. Ensure accurate sprayer calibration is achieved and DO NOT add any penetrant or surfactant. DO NOT USE ON RYEGRASS BASED OR OTHER IMPROVED PASTURE TYPES AS YIELD SUPPRESSION MAY OCCUR. MAXIMUM SUGGESTED TREATMENT AREA SHOULD NOT EXCEED 10-15% OF FARM AREA IN ANY ONE YEAR. DO NOT USE IN DRY CONDITIONS UNFAVOURABLE FOR GROWTH FOLLOWING APPLICATION.
Pasture - spot treatment		Refer to weed control table for use rates. Ensure product does not contact desirable plants. Selective wiper application may be used to control erect weeds. Follow-up treatment and/or pasture improvement may be required to control seedling re-establishment.
Pasture - renovation		May be used to control weeds prior to reseeding the pasture or sowing other crops.
Pre-Harvest Weed Control	Wheat, Barley, Oats	Wheat / Barley / Oats: apply 7-12 days prior to harvest when grain moisture content is less than 30%. Do not harvest within 7 days of application to ensure full herbicide translocation into roots. Do not apply to undersown crops including clovers as they may be severely damaged. DO NOT APPLY TO CROPS WHICH WILL BE HARVESTED FOR SEED. Use rates up to 1.2L/ha dependant on specific targeted weeds. Avoid treating drought stressed plants.
Pre-cutting Silage crops	Silage Crops	Application of Donaghys Grunt® 600 may be made to silage paddocks pre-rotation into cropping. Use 1.25-1.7L/ha with 100mL/100L of Donaghys Wetter Sticker organosilicone surfactant, at water rate of 100-200L/ha. Use high rate on perennial ryegrass, or if silage lodged or rank. Post spray application, wait 2 days minimum for cutting annual ryegrass, or 4 days minimum for cutting perennial ryegrass. Maximum time before cutting should not exceed 10 days.

WEED CONTROL TABLES

Annual Weeds:	Rate			Comments
	Boom/aerial L/ha	Handgun L/100 L	Knapsack ml/10L	
Annual weeds, undesirable grasses and Sub. clover	0.40 - 0.80	0.1	8.1	Apply at the higher rate for larger weeds. May be tank mixed with residual herbicides. Wiper: 33% solution.
Cleavers	0.65	0.20	20	
Perennial Weeds:				
Australian sedge	2.5	0.40	40	Apply from Nov-Mar. Do not disturb for 4 weeks post treatment. Wiper 33% solution.
Browntop	2.5	0.40	40	Apply when plants 5-10cm high and actively growing.
Californian thistle	1.7	0.40	40	Spray after the development of flower buds but before autumn browning. Mowing 10 days after treatment may improve control. Re-treatment the following summer may also be necessary to prevent re-infestation from seed.
Couch	1.25 - 2.5	0.40	40	Autumn treatment is preferable. Use higher rate in late spring. Apply to actively growing plants at least 10cm high.
Dock	1.7 - 3.75	0.40	40	Spray actively growing plants before seedheads have formed. Use higher rate for mature plants.
Floating and Reed sweet grass	2.5	0.40	40	Apply at early seedhead stage to actively growing, unstressed plants.
Indian doab	3.75	0.40	40	Apply at early seedhead stage.
Johnson grass, Kikuyu and Mercer grass (non-aquatic)	2.5	0.40	40	Best results when applied at early seedhead stage with active growth conditions.
Nodding thistle	2.5	0.40	40	For wiper application use 33% solution and apply to actively growing plants when at least 10cm of the thistle can be wiped. A double pass may be necessary in heavy infestations. Follow up spot treatments may also be required.
Paspalum spp.	1.7 - 2.5	0.40	40	Use lower rate when plants are at early seedhead stage and higher rate when it has formed established clumps.
Potato (volunteer)	1.25	0.20	20	
Prairie grass	0.65	-	-	
Ragwort	2.5	0.40	40	Apply to actively growing plants with sufficient leaf on multicrown plants for herbicide uptake. Use a wiper when plants are 10-15cm above the pasture with a double pass in heavy infestations. Do not add surfactants. Caution: Ragwort may become more palatable following spraying and stock should be removed until brown-out of treated plants.

WEED CONTROL TABLES - (CONT)

Annual Weeds:	Rate			Comments
	Boom/aerial L/ha	Handgun L/100 L	Knapsack ml/10L	
Ratstail	2.1	-	-	Apply to actively growing plants (Mar-Apr), in dry conditions delay spraying until sufficient green foliage present.
Rautahi (Cutty grass)	2.5	0.40	40	Apply to actively growing plants (Jan-Mar). Burning or slashing may take place after brownout, usually one month after treatment.
Rushes	2.5	0.40	-	
Perennial ryegrass	1.7	0.40	40	Apply any time plants are actively growing and 3-10cm tall. Use low rate Jan-Jul when cultivation is to follow spraying. Use 1.7L/ha Aug-Sep. Add 100mL Donaghys Wetter Sticker organosilicone surfactant per 100L for boom/aerial/handgun applications and 10mL per 10L for knapsack applications.
Tall fescue	2.5	0.40	40	Apply to actively growing plants Jan-Mar.
Yarrow	1.3 - 2.6	-	-	Apply to plants with 5-10cm of leaf. For best results cultivate after treatment. Use lower rate when a competitive crop to yarrow is to be drilled. Use higher rate when crop to be drilled is a poor competitor.
Scrub weeds:				
Barberry	-	0.40	40	Apply from flowering to late fruit (Jan-Apr). Re-growth should reach 1.5m before spraying.
Blackberry	3.75 -8.0	0.35 - 0.65	40	Apply from flowering to fruiting stage (Dec-Apr) before frosts occur. Early treatment may be preferable in drought prone areas (Dec-Jan). Allow 6-10 weeks before slashing/ burning or oversowing. Use higher rate for hard to kill blackberry, aerial applications and where no follow up treatment is planned. Where treatment is carried out under marginal conditions, re-growth can be expected with 1-2 years.
Boxthorn	-	0.50	-	Apply to actively growing plants (Nov-Apr). Ensure complete coverage of dense thickets Do not add surfactants or spray salt damaged plants.
Bracken	3.75	0.40	40	Apply after fronds unfurl but before frost browning (Jan-Jun). Add 250mL Donaghys Wetter Sticker organosilicone surfactant per 100L for boom/aerial/handgun applications and 20mL per 10L for knapsack applications.
Broom	3.75	0.40	40	Best aerial results are obtained when plants are in full leaf, handgun application may be made at any time. Add 250mL Donaghys Wetter Sticker organosilicone surfactant per 100L for boom/aerial/handgun applications and 20mL per 10L for knapsack applications.

WEED CONTROL TABLES

Scrub Weeds: (cont)	Rate			Comments
	Boom/aerial L/ha	Handgun L/100 L	Knapsack ml/10L	
Buddleja	3.75	0.40	40	Aerial application should be made in Feb-Apr when plants are up to 2m high using a No. 4 or 6 tip and 1500-2000kPa. Handgun applications may be made at any time to actively growing plants.
Gorse	-	0.40	-	Ensure complete coverage. Apply at any time of the year as long as plants are not stressed, using No 4-8 spray tips and 1500-2000kPa. Burning/slashing 40-60 days after treatment may improve control levels. Add 200mL/100L Donaghys Wetter Sticker organosilicone surfactant.
Old Man's Beard	-	0.40 - 0.85	80	Apply before leaf senescence (Nov-Mar). Use lower rate for small vines. If complete coverage is not possible vines should be cut to ground level in winter or spring and re-growth sprayed at the higher rate in March when at least 50cm long. Follow-up treatment is recommended to control seedlings.
Pampas Grass / Toetoe	-	0.40	40	Apply spring-autumn and ensure complete coverage. Reduced control may occur if plants are in flower at time of spraying.
Ring fern	0.45 - 1.25	0.15	15	Use 1.3L/ha Jan-Apr and 0.45-0.9L/ha for pasture manipulation in Dec-Apr. Use higher rate for heavy infestations. Burn 4-6 weeks after spraying and oversow with pasture.
Sweet Brier	5	0.40	40	Spray from late flowering to early leaf yellowing. Ensure full coverage. Add 250mL Donaghys Wetter Sticker surfactant per 100L for boom/aerial/handgun applications and 20mL per 10L for knapsack applications.
Willow	5.6 - 7.5	0.40	-	Spray Jan-Apr before leaf fall begins. Ensure complete coverage. Add 250mL Donaghys Wetter Sticker surfactant per 100L.

GRUNT® 600

DANGER: Read label before use. Harmful if swallowed may cause severe skin burns and serious eye damage.

PERSONAL PROTECTION: Wash hands thoroughly after handling. Do not eat, drink or smoke whilst using this product.

STORAGE: Store in original container tightly closed and in a locked, dry cool, well-ventilated area, away from foodstuffs. When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Contact the proprietor for further information about the use of this product if it is older than this.

SPILLS AND DISPOSAL: When dealing with spills wear personal protective clothing and equipment. Contain and collect spillage, absorb with suitable inert absorbent material and store in properly labelled, sealed drums for safe disposal. If spray mixture is spilled absorb and collect in drums as above. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

PRODUCT DISPOSAL: If possible dispose of the product by using according to the label, otherwise dispose of in an approved landfill or bury below 50 cm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

CONTAINER DISPOSAL: Triple rinse container and add residue to mixture. If circumstances permit, especially wind direction, the empty container may be burned, otherwise bury in a suitable land fill. Where possible triple rinse container and deliver to an Agrecovery Collection point for recycling or disposal.

ENVIRONMENT: Toxic to aquatic life with long lasting effects. Avoid release to the environment. Collect spillage. Handle and apply with care, spray drift may cause severe damage to desirable plants.

SAFETY DATA SHEET: A safety data sheet is available from Donaghys Ltd. Visit www.donaghys.com, or call customer service Toll Free on 0800 942 006.

FIRST AID

Call a POISON CENTRE (0800 764 766) for doctor/physician if you feel unwell. If medical advice is needed, have product container or label at hand.

IF SWALLOWED: Do NOT induce vomiting. Rinse mouth thoroughly. If unwell, get medical advice or attention.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms develop, get medical advice or attention.

IF IN EYES: Rinse eyes cautiously for 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing. If irritation persists get medical advice or attention.

IF ON SKIN: Remove and wash contaminated clothing. Wash affected areas thoroughly with soap and water. If skin irritation persists, get medical advice or attention.

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Proper Shipping Name:
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SUBSTANCE, LIQUID, N.O.S. (contains Glyphosate 600 g/L, Cocamidopropyl dimethylamine < 10%).
UN number: 3082
DG Class: 9 Packaging Group: III

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DONAGHYS LTD.
PO BOX 20 449, CHRISTCHURCH, NEW ZEALAND
FREEPHONE: 0800 942 006
WWW.DONAGHYS.COM