

orion AGRISCIENCE

WARNING
KEEP OUT OF REACH OF CHILDREN

Mustang[®] HERBICIDE

A herbicide for the control of blackberry, gorse, ragwort and a range of other scrub weeds in PASTURE, WASTE AREAS and in FORESTRY sites prior to planting

Active Ingredient:

600 g/Kg of metsulfuron as the methyl ester in the form of water dispersible granule

READ LABEL BEFORE USE



WARNING

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HAZARD CLASSIFICATIONS: Eye Irritant (Cat. 2), Hazardous to the Aquatic Environment Acute (Cat. 1), Hazardous to the Aquatic Environment Chronic (Cat. 1), Hazardous to Soil Organisms

WARNING

Causes serious eye irritation. Very toxic to aquatic life with long lasting effects. Very toxic to some plant species (selective herbicide).

PRECAUTIONS

Read carefully and follow all instructions. Avoid contact with eyes and skin. Do not breathe in the dust or spray mist. Wash hands thoroughly after handling.

STORAGE

Store in the original tightly closed container. When stored appropriately this product should show no significant degradation for two years from the date of manufacture. Contact your supplier for further information about the use of product that is older than this.

PROTECTIVE EQUIPMENT

When mixing or applying, wear overalls, boots, gloves, and eye protection. Wear a respirator if dust or spray mist could be inhaled.

USE

Apply with well maintained and calibrated spray equipment. Application must be by a qualified loader, contractor or person.

DISPOSAL

Dispose of this product by using it in accordance with this label. Dispose of the container via AgRecovery after triple rinsing (use the rinsate for spraying). Do not burn. Do not use the container for any other purpose.

ENVIRONMENTAL

Take all reasonable steps to ensure that this product does not cause any significant adverse effects to the environment beyond the application area. Do not apply directly into or onto water. Collect spillage.

FIRST AID

If medical advice is needed, have product container or label at hand.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

If eye irritation persists: Get medical help.

For advice, call the Poisons Centre on **0800 POISON (0800 764 766)** or a Doctor.

EMERGENCY RESPONSE

In an emergency call **111, Police or Fire Brigade**. For specialist advice in an emergency only, call **0800 CHEMCALL (0800 243 6225)** (24 hrs).

SAFETY DATA SHEET

Additional information is provided in the safety data sheet. Freephone **0800 ORIONAS (0800 674 6627)** or visit www.orionagriscience.co.nz

WARRANTY: This formulation is warranted to contain the specified active ingredient within accepted analytical tolerance when packed. The user bears the risk for damage resulting from factors beyond the manufacturers control. The manufacturer declines all liability for damage resulting from improper storage or use of the product.

Registered pursuant to the ACVM Act 1997, No. P5991

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

Approved pursuant to the HSN0 Act 1996, No. HSR000242

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

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www.orionagriscience.co.nz

*MUSTANG is a Registered Trade Mark of Orion AgriScience Ltd.

**SILMAXX is a Trade Mark of Orion AgriScience Ltd.

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ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(METSULFURON-METHYL 60%)

HAZARD CLASS 9

PACKING GROUP III

HAZCHEM CODE Z2

Net Contents: 25KG

Mustang[®]



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AGRISCIENCE

Batch No.

Date of manufacture



MUSTANG 25KG: READ LABEL BEFORE USE

BEWARE: Injury to or loss of desirable trees or other plants may result from failure to observe the following:

- Spray drift, powder or equipment contamination may cause serious damage to desirable plants. Do not allow spray drift outside the target area to occur. Do not use the same equipment to apply other chemicals to susceptible crops unless thoroughly cleaned and decontaminated.
- 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, walkways, driveways, tennis courts or similar areas.
- Application to drains and irrigation channels must only be made when these waterways are dry and at least two months is allowed to elapse before the channels are used for carrying water.
- Keep from contact with fertilizers, insecticides, fungicides and seeds.

GENERAL INFORMATION

Mustang is a herbicide for the control of certain scrub weeds in pasture, waste areas and in the preparation of forestry sites prior to planting. The formulation is a water dispersible granule that is mixed with water and applied as a foliar spray. Mustang is non-volatile, non-flammable and non-corrosive. Weeds controlled include gorse, blackberry and ragwort. Best results are obtained when product is applied to actively growing weeds from late spring through to late autumn. The use of an organosilicone penetrant/surfactant such as Silmaxx™ is essential to obtain good control of some weeds. (Refer to Weeds Controlled Table).

DIRECTIONS FOR USE

REFER TO THE WEEDS CONTROLLED TABLE FOR SPECIFIC WEEDS AND RATES.

APPLICATION METHODS

Boom equipment: Application can be made in spray volumes up to 400 litres/ha using fan nozzles at pressures in the range of 200-280kPa. Boom height should be set so a double overlap of nozzle pattern is achieved at the top of the target plants.

Aerial equipment: Forest and non-crop areas. Can be applied by aircraft in spray volumes of up to 400 litres/ha. Always use Silmaxx penetrant when indicated on the Weeds Controlled Table at the rates recommended. Increase spray volumes in hilly terrain to ensure maximum target contact. **DO NOT USE NEAR INTENSIVE HORTICULTURAL CROPPING AREAS.**

Handgun and Knapsack: Ensure a fine spray pattern to give complete coverage. For handguns, use pressures of 1000-2000kPa and No.4 to No.6 spray tips. Apply no less than 1000 litres of spray mix per hectare. Only use a knapsack on small bushes where full coverage can be obtained.

Mistblower: Spray to achieve good coverage of the foliage and stems ensuring good penetration into the bush. Use the largest setting for ULV attachments.

Foaming nozzle system: Apply a minimum of 200 – 300 litres of water per hectare as a double overlap application of 100 – 150 litres per hectare.

Wiper equipment: Pre-mix 1 gram Mustang in 1 litre of clean water. Ensure wipers are wet before starting application. Mix only enough for immediate use. Plants must be clean and dry and the wiper fully saturated. Apply up and down slopes for effective applications. For high weed density, reduce speed and apply twice in opposite directions. Weeds controlled include Ragwort, Buttercup and the following thistles: Scotch, Californian, Winged and Nodding.

Stump swabbing: Mix 5 g of Mustang per litre of water and using a brush or knapsack, liberally apply to freshly cut stumps as close as possible to the ground. Weeds controlled include gorse and barberry.

Stem injection: Mix 20 g of Mustang per litre of water and inject 2ml of solution into holes or cuts made at 10 cm intervals around the stem of the tree. Weeds controlled include poplars, willows, privet and pines. Control of large willow trees may be variable.

Weeds Controlled Table

WEED	HANDGUN RATE/ 100 LITRES	KNAPSACK RATE/ 10 LITRES	MISTBLOWER RATE/ 10 LITRES	BROADCAST AERIAL OR GROUND BOOM RATE/ HECTARE	APPLICATION COMMENTS
Barberry	35g	5g	10g		Apply from November to May. Optimum results are achieved treating single bushes less than 3 metres in height.
Blackberry	20-35g	5g	10g	200-300g	The high rate should be used on hard to kill blackberry types occurring in some Northland areas and on the east coast of the North Island. Mustang may be applied from November to June and preferably from January to May. Apply prior to leaf discoloration. Best results are obtained by using ground application equipment. Crushing, slashing or burning of treated bushes is recommended to aid in control and should be carried out whenever canes are brittle enough. Intensive stocking with sheep or goats and oversowing will minimise the amount of regrowth in treated areas. Some regrowth may require follow-up treatment two years after spraying.
Bracken	35g	5g	10g	170g	Apply when fronds are unfurled, usually January to June but before frost browning. Best results can be obtained when bracken plants are burnt and frond regrowth is sprayed.
Broom	35g	5g	10g	-	Apply from November to May to actively growing bushes. Ensure the addition of a penetrant such as Silmaxx at 100 ml per 100 litres.
Fennel and Broadleaf Weeds	5g	1g	2g	50g	Can be applied when weeds are actively growing.
Gorse	15g	5g	10g	Seedling gorse 170g Established gorse 500g	Apply at any time of the year. Handgun, knapsack, mistblower applications: The addition of Silmaxx penetrant or an equivalent organosilicone penetrant at 100ml/100 litres (1 ml/litre) is essential. Aerial and broadcast applications: Use at least 400 litres water per hectare with at least 1.6 litres per hectare of Silmaxx penetrant or an equivalent organosilicone penetrant. Aerial treatments may require follow-up applications. Following aerial application, it is essential to start a program of follow-up spraying and/or management practices including slashing, burning or crushing and the oversowing of improved pasture species.
Hawthorn	35g	5g	10g	-	Apply from November to March. Best results are achieved treating single bushes less than 3 metres in height.
Horehound	-	-	-	75g	Apply when actively growing. Use only in waste areas or sheep camps where pasture damage can be tolerated.
Inkweed	25g	5g	10g	50g	Apply when weeds are actively growing.
Kanuka Manuka	30g	5g	10g	-	Ensure complete coverage of tall growing bushes. Apply when actively growing. Ensure the addition of a penetrant at 2 litres per hectare. Aerial application onto scrub with mixed canopy height may lead to variable results due to shielding of the smaller scrub and follow up treatments may be necessary. Following aerial application, it is essential to start a program of follow-up spraying and/or management practices including slashing, burning or crushing and the oversowing of improved pasture species.
Matagouri	25g	5g	10g	170g	Apply when bushes are actively growing, generally December – April.
Old Mans Beard	35g	5g	-	170g	Apply from November to May. Add Silmaxx penetrant or an equivalent organosilicone penetrant at 100ml/100 litres.
Privet	35g	5g	10g	-	Apply when privet is actively growing during the spring or autumn.
Ragwort/ Thistles	2.5-5g	1g	-	-	Application can be made to ragwort from rosette stage to late flowering. Application at the rosette stage is preferable. The higher rate must be used on multicrown plants. Spray the centre of plant. Seed from treated flowering plants will not form viable seeds providing application is made before senescence (flowers discolour). CAUTION: Stock should be removed until the treated plants die as ragwort plants may become more palatable after treatment.
Sweet Briar	35g	5g	10g	170g	Apply from November to April. Ensure complete coverage of trees.
Tauhinu	-	-	-	300g	Apply when weed is actively growing. The addition of Silmaxx penetrant or an equivalent organosilicone penetrant is recommended. Larger bushes may be less well controlled.
Tutu	25g	5g	10g	-	Apply when weeds are actively growing.
Wild Ginger	25g	5g	10g	-	Apply from spring to late autumn.
Willows	35g	5g	10g	-	Apply from November to April. Ensure complete coverage of trees.

Forestry prior to planting Pinus radiata: Use only as a pre-plant treatment not less than 2 months prior to planting. Use 170 g per hectare to control bracken, blackberry and seedling gorse. Use within the 2 month pre-planting interval will result in damage to the pine trees. Use Silmaxx penetrant or an equivalent organosilicone at 100ml per 100 litres of water or as specified in the Weeds Controlled Table.

MIXING: Fill the clean spray tank with half the amount of clean water. Pre-mix Mustang in a small quantity of water as required and then add to the half full spray tank before adding the remaining water. If penetrant is required, add this last to the full spray tank to minimise foaming. Continuous agitation is required to keep product in suspension.

ADDITIVES: Where indicated under recommendations in the Weeds Controlled Table, an organosilicone penetrant/surfactant such as Silmaxx or an equivalent must be used.

COMPATIBILITY: MUSTANG is compatible with commonly used herbicides.

CLEANING APPLICATION EQUIPMENT: To avoid damage to subsequent crops, immediately remove all traces of Mustang from the mixing and spray equipment by the following procedure:

- Drain tank and flush the entire system including booms and hoses for at least 10 minutes with clean water and empty.
- Fill the tank with clean water and add sodium hypochlorite (3% chlorine bleach) at 1 litre per 100 litres water. Flush the entire system with active agitation, then drain.
- Repeat previous step.
- Remove nozzles and screens and clean separately. Finally, rinse the system again with clean water to remove chlorine bleach residues.

WITHOLDING PERIOD

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.

Do **NOT** graze dairy cows on treated areas for at least 3 days after application. Other livestock may be grazed after 1 day. Poisonous plants, such as ragwort, may become more palatable to stock after spraying, and livestock should be kept away until plants have died down.

RE-ESTABLISHING PASTURE

Mustang is damaging to clover and ryegrass. Soil residues of metsulfuron can prevent early re-establishment of clovers and ryegrass. Soil residues will vary according to climate, soil type and the initial use rate. A time of at least three months should pass before oversowing treated areas with clovers and ryegrass. Where a new pasture needs to be established quickly, less sensitive grasses such as browntop or cocksfoot can be oversown. Small areas of clover or ryegrass may be oversown 1 – 2 months prior to establishing new pastures to check for possible harmful residues.

RESISTANCE MANAGEMENT

GROUP 2 HERBICIDE

Mustang belongs to the sulfonylurea chemical group. Some naturally occurring weeds may become resistant when excessive use of the same herbicide occurs. To prevent or delay the development of resistance, use in tank mixes and/or rotate use with herbicides with a different mode of action. Consult <http://resistance.nzpps.org/index.php> for alternative modes of action and details of resistance management strategies (if any) for the crops listed on the label.