

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



Dow AgroSciences

Goal™

Herbicide

ACTIVE CONSTITUENT: 240 g/L OXYFLUORFEN
SOLVENTS: 108 g/L N-METHYL PYRROLIDONE
606 g/L LIQUID HYDROCARBONS

GROUP G HERBICIDE

For selective weed control of broadleaf weeds and some grasses as specified in the Directions For Use Table.

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Dow AgroSciences

DIRECTIONS FOR USE

Goal™ Herbicide can be used on weed-free soil to prevent germination of a wide variety of weeds or it can be applied to existing weeds at seedling stage especially with a tank mix partner to increase the variety of weeds controlled and/or the length of residual control. Goal Herbicide can also be added at a low rate as a “spike” to glyphosate or paraquat and diquat/paraquat herbicides to improve knockdown.

1. Goal Herbicide applied as a “spike” with glyphosate OR with either paraquat or a diquat/paraquat mixture.

RESTRAINT: DO NOT disturb weeds by cultivation or sowing for 1 day following application to annual weeds and 7 days for perennial weeds to ensure herbicide absorption, unless specified in the CRITICAL COMMENTS.

SITUATION	FOR WEEDS CONTROLLED & TIME OF APPLICATION	RATE of Goal Herbicide	CRITICAL COMMENTS
Summer and Winter Fallow - Before sowing	Refer to label of the glyphosate product (such as Ripper™ 480, Roundup®, Roundup CT®, PowerMax®, Touchdown® or Touchdown HiTech®)	75 mL/ha plus a glyphosate product at its recommended label rate	Addition of Goal Herbicide to glyphosate products will improve knockdown and increase the speed at which treated weeds develop visible symptoms of phytotoxicity (compared to results achieved with glyphosate applied alone) and give control of annual nettles, (<i>Urtica</i> spp.), barley grass, Paterson's curse, small-flowered mallow and storksbill. For rates of glyphosate, refer to the appropriate label. Read and follow all label directions. See SAFE SOWING INTERVALS section of this label.
Fruit & nut trees, vines including: Grapevines, Olive trees, Pome fruit (eg. apple, pear, nashi, quince), Stone fruit (eg. apricot, cherry, nectarine, peach, plum) Tree nuts (eg. almond, macadamia, pecan, walnut).	Refer to label of the glyphosate product (such as Ripper™ 480, Roundup®, Roundup CT®, PowerMax®, Touchdown® or Touchdown HiTech®)	75 mL/ha plus a glyphosate product at its recommended label rate	Addition of Goal Herbicide to glyphosate products will improve knockdown and increase the speed at which treated weeds develop visible symptoms of phytotoxicity (compared to results achieved with glyphosate applied alone) and give control of annual nettles, (<i>Urtica</i> spp.), barley grass, Paterson's curse, small-flowered mallow and storksbill. For rates of glyphosate, refer to the appropriate label. Read and follow all label directions. DO NOT apply the tank mix of glyphosate and Goal near trees or vines less than 3 years old unless they are effectively shielded from spray and spray drift.
	Refer to label of the paraquat or diquat/paraquat products (such as Spray.Seed® or Tryquat® 200)	250 mL/ha plus a paraquat or diquat/paraquat product at its recommended label rate	Addition of Goal Herbicide in a tank mix with a paraquat or diquat/paraquat product will improve control of small flowered mallow, evening primrose and other weeds sensitive to Goal Herbicide. For the rate of the paraquat or diquat/paraquat product, refer to the appropriate label. Read and follow all label directions.



2. Goal Herbicide applied to weed-free soil or weeds at seedling stage.

RESTRAINT: If applying to weed seedlings, **DO NOT** disturb weeds by cultivation or sowing for 1 day following application to annual weeds and 7 days for perennial weeds to ensure herbicide absorption, unless specified in the CRITICAL COMMENTS.

CROP OR SITUATION	WEEDS CONTROLLED	WEED OR CROP STAGE	RATE	CRITICAL COMMENTS
Brassica Crops; Broccoli Cabbages Cauliflower	Refer to Weeds Controlled list	Weed free soil (prior to crop transplanting)	1.5 to 2 L/ha	Apply Goal Herbicide to prepared ground 4 to 7 days prior to transplanting . If soil is dry, irrigation or rainfall is required prior to transplanting for activation of Goal Herbicide. Utilise transplanting techniques which cause minimal soil disturbance. Excessive soil disturbance will lessen herbicidal activity. Use the higher rate in situations where weed pressure is known to be heavy.
Coffee (after transplanting or under established bushes)	Refer to Weeds Controlled list	Weed free soil	2 to 4 L/ha	Use the higher rate where longer residual activity (up to 4 months) is required.
		Weeds at the 2 to 4 true-leaf stage		When seedlings are present, apply as a tank mix with paraquat to give both knockdown and residual control. A non-ionic surfactant should be used in the spray mixture at its recommended rate. Apply as a directed spray to avoid contact with coffee plants. Mature, established weeds must be eliminated by mechanical or chemical means prior to application.
Duboisia (after transplanting of young seedlings or after harvest of mature plants)	Refer to Weeds Controlled list (best results are achieved when applied to moist soil free of weeds)	Weed free soil	4 or 8 L/ha	Use the higher rate where longer residual control (up to 6 months) is required. An "over-the-top" application will be tolerated.
		Weeds at the 4 to 6 true-leaf stage		Recently germinated small seedling grasses and broadleaf weeds (4 to 6 true leaves) will be controlled with these rates. Established larger weeds must be eliminated by mechanical or chemical means prior to application of Goal Herbicide. Add a non-ionic surfactant at its recommended rate to enhance activity.
Forestry Plantations: <i>Eucalyptus</i> spp. and <i>Pinus</i> spp. (either before or preferably within 4 weeks of transplanting)	Refer to Weeds Controlled list	Weed free soil (either before or preferably within 4 weeks of transplanting).	3 or 4 L/ha	Under weed-free conditions, apply as a directed or "over-the-top" spray. Disturbance of the herbicidal barrier on the soil surface at transplantation may reduce the length of weed control. If weed seedlings are present, apply as an "over-the-top" spray. In either situation, use the higher rate for longer residual control. Goal Herbicide can be applied in a tank mix with simazine to extend the spectrum and length of weed control. DO NOT use this tank mix in Eucalyptus plantations grown on sands, with no clay or organic matter. The likelihood of foliar damage to trees (especially eucalypts) will increase if applied to foliage that has not hardened off and/or if the temperature exceeds 20°C. However Goal Herbicide is generally regarded as safe to commonly planted forestry species but the sensitivity of less common species should be tested on small areas before a large-scale application is made.
		Weeds at the 4 to 6 true-leaf stage		
Forestry Trees	Broadleaf weeds and grasses	Weeds at the 4 to 6 true-leaf stage	4 L/ha or 4 mL/10 m ²	For the establishment of trees for approved farm practices such as wind breaks, erosion control, woodlots and forestry plantings. When applying as a post-plant spray, ensure spray is directed to the base of seedlings, or that seedlings are protected. Do not apply under hot or windy conditions.



2. Goal Herbicide applied to weed-free soil or weeds at seedling stage. *(continued)*

CROP OR SITUATION	WEEDS CONTROLLED	WEED OR CROP STAGE	RATE	CRITICAL COMMENTS
Pyrethrum; - as bare rooted transplants or seedlings	Refer to Weeds Controlled list (except chickweed)	Pre-plant incorporated into weed free soil worked to a fine tilth	4 or 6 L/ha	Apply prior to final soil preparation. The preferred implements for final soil preparation would be either a multiple tyne cultivator or rotary harrows. Use the 6 L/ha rate for heavy black clay soils only (as found in the Derwent and Coal River Valleys, Tasmania). Goal Herbicide will not provide consistent control of chickweed.
- more than 4 leaf stage	Blackberry nightsshade, Cleavers, Field bindweed, Fumitory, Groundsel, Sorrel, Volunteer potato, Wireweed	Emergent weeds present	100-150 mL/ha	Apply when pyrethrum is > 10 cm rosettes. Apply rates of more than 1 L/ha ONLY between 1st of February and 31st of March. DO NOT apply later than 25 weeks before harvest.
- established crops, >1 yr old	as above, plus Sow thistle, Spear thistle		200 mL to 4 L/ha	
Tobacco	Refer to Weeds Controlled list	Weed free soil	4 L/ha	Use to control weeds along spray lines only. DO NOT apply to tobacco crop. Apply to soil after solid-set irrigation system has been laid out in the field. Goal Herbicide should be applied to a moist soil. Where very small weeds (2-3 leaf) emerge prior to spraying, the addition of a non-ionic surfactant to the spray mixture is necessary for effective control. Should the weeds be more advanced, the addition of 2 L/ha of Tryquat 200 is required. Avoid spray drift.
Trees (Fruit & Nut) and Vines at least 3 years old as a dormant application, including: Grapevines, Olive trees, Pome fruit (eg. apple, pear, nashi, quince), Stone fruit (eg. apricot, cherry, nectarine, peach, plum), Tree nuts (eg. almond, macadamia, pecan, walnut).	Refer to Weeds Controlled list	Weed free soil	3 or 4 L/ha	DO NOT apply Goal Herbicide once bud swell has occurred. Apply to freshly cultivated weed free soil. Use the higher rate when longer residual control is required (up to 4 months). Where grass weeds are expected to be a major problem, or when control of a wider weed spectrum is required, mix the lower rate with 4.5 L/ha of an oryzalin (500 g/L) product or 4.5 kg/ha of a napropamide (500 g/kg) product. Refer to product labels for crops, rates, states and weeds controlled and follow all label directions.
		Emergent weeds present (4-6 leaf stage)		DO NOT apply Goal Herbicide once bud swell has occurred. Use the higher rate when longer residual control is required (up to 4 months). When young seedling grasses and/or broadleaf weeds are present, apply as a tank mix with glyphosate or paraquat or diquat/paraquat to obtain both knockdown and residual control. A non-ionic surfactant such as BS-1000 should be used at 0.1%v/v. Read and follow all label directions. Where weed growth is large and dense, weeds must be eliminated prior to application of Goal Herbicide, using chemical or mechanical means. Macadamias: Apply in 250 to 500 L water/ha. Apply after harvest to prevent spray contacting nuts. Avoid spray contact with the foliage and stem. DO NOT apply to nuts on the ground.



2. Goal Herbicide applied to weed-free soil or weeds at seedling stage. (continued)

CROP OR SITUATION	WEEDS CONTROLLED	WEED OR CROP STAGE	RATE	CRITICAL COMMENTS
Tropical and sub-tropical fruit crops (inedible peel), including; Avocado, Cherimoya, Custard apple, Durian, Feijoa, Guava, Jackfruit, Kiwifruit, Longan, Lychee, Mango, Mangosteen, Papaya, Passionfruit, Persimmon, Rambutan, Star apple.	Refer to Weeds Controlled list	Weed free soil	4 L/ha	Best results are obtained when applied to moist weed free soil and followed by rainfall or irrigation.
		Emerged weeds present		If weeds are present, Goal Herbicide should be applied as a tank mix with recommended rates of glyphosate or paraquat or diquat/paraquat. Read and follow all label directions.

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

WITHHOLDING PERIODS:

GRAZING: DO NOT ALLOW LIVESTOCK TO GRAZE TREATED WEEDS.

HARVEST: NOT REQUIRED WHEN USED AS DIRECTED.



Weeds Controlled List:

BEFORE GERMINATION

Amsinckia (*Amsinckia* spp.)
Barley grass (*Hordeum leporinum*)
Barnyard grass (*Echinochloa* spp.)
Blackberry nightshade (*Solanum nigrum*)
Bladder ketmia (*Hibiscus trionum*)
Burrgrass (*Cenchrus australis*)
Caltrop (*Tribulus terrestris*)
Capeweed (*Arctotheca calendula*)
Chickweed (*Stellaria media*)
Crowsfoot grass (*Eleusine indica*)
Deadnettle (*Lamium amplexicaule*)
Fat hen (*Chenopodium album*)
Giant pigweed (*Trianthema portulacastrum*)
Liverseed grass (*Urochloa panicoides*)
Lovegrass (*Eragrostis* spp.)
Pigeon grass (*Setaria* spp.)
Pigweed (*Portulaca oleracea*)
Prickly lettuce (*Lactuca* spp.)
Red Natal grass (*Rhynchelytrum repens*)
Redshank (*Amaranthus cruentus*)
Ryegrass (*Lolium* spp.)
Sesbania pea (*Sesbania cannabina*)
Shepherd's purse (*Capsella bursa-pastoris*)
Small flowered mallow (*Malva parviflora*)
Soursob (*Oxalis pes-caprae*)
Sow thistle (*Sonchus oleraceus*)
Starburr (*Acanthospermum hispidum*)
Stinkgrass (*Eragrostis cilianensis*)
Summer grass (*Digitaria* spp.)
Thornapple (*Datura stramonium*)
White eye (*Richardia brasiliensis*)
Wild mustard (*Sisymbrium* spp.)
Wild radish (*Raphanus raphanistrum*)
Wireweed/Hogweed (*Polygonum aviculare*)

SEEDLINGS

Amsinckia (*Amsinckia* spp.)
Barley grass (*Hordeum glaucum*, *H. leporinum*)*
Bellvine (*Ipomoea* spp.)
Capeweed (*Arctotheca calendula*)
Common cotula (*Cotula australis*)
Crowsfoot grass (*Eleusine indica*)
Deadnettle (*Lamium amplexicaule*)
Groundsel (*Senecio vulgaris*)
Liverseed grass (*Urochloa panicoides*)
Paterson's curse (*Echium plantagineum*)*
Pigweed (*Portulaca oleracea*)
Potato weed (*Galinsoga parviflora*)
Redshank (*Amaranthus cruentus*)
Shepherd's purse (*Capsella bursa-pastoris*)
Sow thistle (*Sonchus oleraceus*)
Small flowered mallow (*Malva parviflora*)*
Stinging nettle (*Urtica urens*)
Stinkgrass (*Eragrostis cilianensis*)
Storksbill (*Erodium* spp.)*
Wild radish (*Raphanus raphanistrum*)

* When mixed with a glyphosate product at its recommended rate.



GENERAL INSTRUCTIONS

Goal Herbicide is a selective herbicide for the control of certain annual grasses and broadleaf weeds in dormant apples, grapes, peaches, pears, plums, apricots, almonds, macadamia, duboisia, tobacco, coffee, pyrethrum, winter cereals, topical/subtropical crops, brassicas, onions, *Eucalyptus* and *Pinus* spp. and other forestry trees, applied either to weed free soil or to seedling weeds up to the 4-6 true-leaf stage.

Goal Herbicide applied to well prepared, weed free soil should not be disturbed or incorporated after application. Weed control for up to 6 months can be expected with high label rates, but spot treatment of escape weeds or perennial grasses may be necessary with knockdown herbicides. When Goal Herbicide is applied to seedling weeds at the 4 to 6 leaf stage, a non-ionic surfactant such as BS-1000® should be added at recommended rates to improve activity, where suggested in the CRITICAL COMMENTS. Goal Herbicide can also be used at low rates as a "spike" to improve the weed spectrum of knockdown herbicides such as glyphosate and paraquat or diquat/paraquat mixtures.

RESISTANT WEEDS WARNING

GROUP G HERBICIDE

Goal Herbicide is a member of the diphenyl ether group of herbicides. The mode of action of Goal Herbicide is to inhibit protoporphyrinogen oxidase. For weed resistance management, Goal Herbicide is a Group G herbicide. Some naturally-occurring weed biotypes resistant to Goal Herbicide and other inhibitors of Group G 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 weeds will not be controlled by Goal Herbicide or other inhibitors or Group G herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Dow AgroSciences accepts no liability for any losses that may result from the failure of Goal Herbicide to control resistant weeds.

TIMING

Residual control

For optimum residual weed control, Goal Herbicide should be applied to the soil surface prior to weed emergence after all other agricultural operations, such as mechanical cultivation and re-shaping of irrigation furrows, have been completed. The area should be left undisturbed during the time period of desired weed control. When applied to seedling weeds, they should be young and actively growing. Weed control for up to 6 months can be expected with high label rates, but spot treatment of escape or perennial grasses may be necessary with knockdown herbicides.

Post-emergence weed control

For optimum post-emergence weed control, Goal Herbicide + glyphosate tank mixes should be applied to small seedling weeds up to 4-6 true-leaf stage. Use of a non-ionic surfactant such as BS-1000 is recommended to improve activity. Weeds should be actively growing and free from environmental stress (drought, cold, insect attack, nutrient deficiency). Cultivation after treatment and prior to or at planting is beneficial for final fallow weed control.

MIXING

Shake well before use. When using Goal Herbicide alone, fill the spray tank at least 1/3 full with clean water and add the recommended amount of Goal Herbicide while the pump and agitator are running, then complete filling the spray tank. A non-ionic surfactant, if required by label directions, should be added near the end of the filling process to minimise foaming. If tank mixing with oryzalin (500 g/L) or napropamide, add the product to a 1/3 filled tank and then add Goal Herbicide during the filling operation. Maintain agitation during mixing and until spraying is completed. When tank mixing with glyphosate formulations, paraquat, diquat or paraquat/diquat, add these after Goal Herbicide during the filling operation.

Goal Herbicide + Glyphosate tank mixes

Ensure thorough agitation when mixing, filling the spray tank and during application, irrespective of glyphosate formulation used. Follow recommended order and directions for tank mixing Goal and glyphosate. Use all spray mix immediately after preparation.

- DO NOT tank mix Goal Herbicide and glyphosate without agitation.
- DO NOT allow mix to stand unagitated.
- DO NOT store Goal Herbicide and glyphosate tank mixes.
- DO NOT mix other agrochemical products with Goal and Roundup PowerMax tank mixtures.

APPLICATION

Spray equipment should be calibrated carefully before use. Goal Herbicide should be applied uniformly with an accurately calibrated, low pressure herbicide sprayer, as a directed treatment to the base of tree and vine crops using flat fan or hollow cone nozzles. Complete coverage of seedling weeds is required for maximum knockdown effect. Ensure both weed foliage and the soil surface are sprayed.

Apply using a vehicle mounted boom, calibrate to deliver a droplet spectrum classification defined as medium by ASABE Standard S572, using water volume of 250 to 500 litres per hectare for bare soil or 100 to 1350 litres per hectare when seedling weeds (4 to 6 leaf stage) are treated. Use the higher volumes where weed density is high.

Tank mixtures of 75 mL/ha of Goal Herbicide with glyphosate herbicides should be applied in 30 to 200 litres spray volume per hectare. For maximum residual control, Goal Herbicide should NOT be incorporated or disturbed after application.

CROP SAFETY

Goal Herbicide may be applied as a directed and/or shielded spray around dormant peach, plum, apricot, almond, apple and pear trees and grapevines of all ages when applied at rates of less than 1 L/ha. When applied at 3 L/ha and above, the trees and grapevines should be at least 3 years of age. DO NOT apply Goal Herbicide once bud swell has occurred when using rates greater than 1 L/ha.

Duboisia seedlings and mature plants will tolerate "over-the-top" applications of Goal Herbicide.



SAFE SOWING INTERVALS

Goal Herbicide at up to 75 mL/ha may be safely applied 1 day prior to planting broadacre crops such as cereals (wheat, barley, oats, triticale), canola, pulses (lupins, faba beans, field peas) and undersown pastures (lucerne, clover, medics, ryegrass, phalaris, cocksfoot) and 7 days minimum prior to planting cotton or soybeans, provided minimum tillage planting equipment is used with minimal soil disturbance. Inversion, mixing of surface soil with that in the

planting zone or covering seed with treated soil may result in injury to emerging crop seedlings. **Avoid covering the seed with soil treated with Goal Herbicide during the planting operation to minimise crop injury.**

Goal Herbicide has residual soil activity, especially when applied at rates greater than 75 mL/ha and on small-seeded horticultural crops. Plant back intervals in the following table for horticultural crops must be observed if more than 75 mL/ha Goal Herbicide has been applied.

Safe Sowing Intervals for Horticultural Crops (Days)

Goal Herbicide rate	Up to 75 mL/ha	1 L/ha
Beans	7	60
Brassicas	14	90
Capsicums	14	90
Carrots	14	90
Cucurbits	14	60
Lettuce	14	90
Potatoes	7	60
Tomatoes	14	60

COMPATIBILITY

Goal Herbicide is compatible with glyphosate products (with agitation), oryzalin (500 g/L), diquat, paraquat, paraquat/diquat and Basta®.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET 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

Use with care when applying in areas frequented by stock.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

This product is highly toxic to wildlife and fish. **DO NOT** contaminate streams, rivers or waterways with the chemical or used containers. Use care when applying in areas frequented by wildlife or adjacent to any body of water. **DO NOT** apply when weather conditions favour drift from target areas.

STORAGE AND DISPOSAL

The method of disposal of the container depends on the container type. Read the STORAGE AND DISPOSAL instructions on the label that is attached to the container.

SAFETY DIRECTIONS

- Will damage the eyes and irritate the skin.
- Avoid contact with eyes and skin.
- When opening the container and preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length butyl rubber gloves and goggles.
- If product on skin, immediately wash area with soap and water.
- If product in eyes wash it out immediately with water.
- Wash hands after use.
- 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.

MATERIAL SAFETY DATA SHEET

Additional information is listed on the Material Safety Data Sheet for **GOAL™ HERBICIDE** which is available from Dow AgroSciences on request. Call Customer Service Toll Free on 1-800 700 096 or visit www.dowagrosciences.com.au

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