

# **RODEO**

A foliar applied translocated herbicide for the control of annual and perennial grass and broad-leaved weeds before sowing or planting of all crops.

For use pre-emergence and pre-harvest in cereals and certain other crops, for destruction of grassland, and use in stubbles and orchards, and non-crop areas. For control of emerged weeds in forestry situations.

Degraded by micro-organisms/microbes in the soil.

A soluble concentrate containing 360 g/l glyphosate, present as 441g/l (35.3% w/w) of the potassium salt of glyphosate

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work

Contents **e** 20 litres

MAPP Number 16242

PROTECT FROM FROST

**Imported** 

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Lot number/production date:



The Voluntary Initiative

This label has been produced according to the Crop Protection Association Voluntary Initiative (VI) guidance

RODEO UK full label POCKET LABEL

MONSANTO UK LIMITED,

Po Box 663, Cambridge CB1 0LD

Tel: 01954 717550

Tel: 01954 717575- Technical Enquiries E-mail: technical.helpline.uk@monsanto.com

Website: www.monsanto-ag.co.uk

In case of emergency day or night, telephone

National Chemical Emergency Centre: (01865) 407333



#### **WARNING**

# Causes serious eye irritation

Wash hands thoroughly after handling. Wear protective eye protection

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention. Do not contaminate water with the product or its container

To avoid risks to human health and the environment, comply with the instructions for use

# COMPLIANCE WITH THE FOLLOWING CONDITIONS OF USE AND ALL SAFETY PRECAUTIONS MARKED\* IS A LEGAL REQUIREMENT

FOR USE ON FARMS ONLY AS AN AGRICULTURAL/HORTICULTURAL/ FORESTRY/ HERBICIDE

#### Crops/situations:

Wheat, (including Durum wheat), barley, oats, combining pea, vining pea, field bean:

Oilseed rape, mustard, linseed;

Sugar beet, swede, turnip, bulb onion, leek;

All edible crops (stubble), all non-edible crops (stubble);

All edible and non-edible crops (destruction, before sowing/planting);

Grassland;

Apple, pear; plum, cherry damson;

Green cover on land not being used for crop production;

Farm non-crop areas including natural surfaces not intended to bear vegetation,

permeable surfaces overlying soil, hard surfaces;

Forest nursery, forest (weed control, stump application and chemical thinning).

Maximum individual dose: }

**Maximum number of treatments:** } Full details are given in Statutory

Area

**Latest time of application:** ) on the attached leaflet

Other specific restrictions: \(\) (Crop Specific Information – marked \(\#\))

# READ ALL OTHER SAFETY PRECAUTIONS AND DIRECTIONS FOR USE BEFORE

**USE** 

# SAFETY PRECAUTIONS

## Operator protection

- \* Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:
- \*WEAR SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate and when handling contaminated surfaces.
- \*WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when using hand-held sprayers, hand-held rotary atomisers, weed wiper equipment, spot gun equipment or when making cut stump treatments.
- \*WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION (FACESHIELD) when using stem injection equipment.
- \* However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WASH HANDS AND EXPOSED SKIN before eating and drinking and after work.

## **Environmental protection**

Do not contaminate water with the product or its container except when used as directed. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

## Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
KEEP OUT OF REACH OF CHILDREN.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
RINSE CONTAINER THOROUGHLY by using an integrated pressure-rinsing device or manually rinse three times. Add washings to sprayer at time of filling and dispose of safely. Triple rinsed containers may be disposed of as non-hazardous waste.

#### Medical advice

Medical guidance is available on a 24 hour basis by telephoning the National Chemical Emergency Centre on 01865 407333 or for doctors, from the National Poisons Information Service on 08448920111

# **DIRECTIONS FOR USE**

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

#### Warnings

EXTREME CARE SHOULD BE TAKEN TO AVOID SPRAY DRIFT AS THIS CAN SEVERELY DAMAGE NEIGHBOURING CROPS OR PLANTS.

DO NOT MIX, STORE OR APPLY RODEO IN GALVANISED OR UNLINED STEEL CONTAINERS OR SPRAY TANKS.

DO NOT leave spray mixtures in tank for long periods and make sure tanks are WELL VENTED.

#### Restrictions

A period without rain of at least 6 hours, and preferably 24 hours, must follow application of RODEO herbicide.

Do not spray on to weeds suffering from drought, water-logging, heat or frost, otherwise poor control may result.

Do not spray in windy conditions as drift onto desired plants or crops could severely damage or destroy them.

Do not tank mix RODEO with adjuvants, pesticides or fertilisers except as specified under Directions for Use – Compatibility.

Applications of lime, fertiliser, farmyard manure and pesticides should be delayed until 5 days after application of RODEO unless cultivation and drilling of the next crop has taken place.

TREATED POISONOUS PLANT SPECIES MUST BE REMOVED BEFORE REGRAZING OR CONSERVING.

# Weeds controlled

RODEO herbicide controls most emerged grasses and broad-leaved weeds. It is important that all weeds are at the correct growth stage when treated, otherwise some re-growth may occur and this will need re-treatment

Apply RODEO herbicide where there is full emergence of grasses and broad-leaved weeds and they have ACTIVELY GROWING green leaves

 PERENNIAL GRASSES must have full emergence of healthy, green leaf. (Common Couch, for example, becomes susceptible at the onset of tillering and new rhizome growth, which usually occurs when plants have 4-5 leaves, each with 10-15 cm of new growth). • PERENNIAL BROAD-LEAVED WEEDS are most susceptible around the flowering stage.

- ANNUAL GRASSES AND BROAD-LEAVED WEEDS should have at least 5 cm of leaf, or 2
  expanded true leaves, respectively. In set-aside, annual grasses are best treated at
  full ear emergence, or before stem elongation. Application during stem extension
  phase of annual grasses e.g. Black-grass and Brome species on set-aside between
  the end of April and end of May, may result in poor control and require re-treatment.
- BRACKEN should be treated after frond tips are unfurled, but pre-senescence.
- OTHER SPECIES recommendations for specific areas of use are given in the Recommendation Tables
- This product will not give an acceptable level of control of Horsetails (*Equisetum arvense*) repeat treatment will be necessary.

# Following crops

Upon soil adsorption the herbicidal properties of RODEO are lost permitting the drilling of crops 48 hrs after application.

# **Crop Specific Information #**

COMPLIANCE WITH THE I	FOLLOWING CO		
Crops/situations:	Maximum individual dose (litres product/ hectare):	Maximum total dose (litres of product/ hectare/crop/ annum):	Latest time of application:
Winter wheat, winter barley, winter oats, spring wheat, spring barley, spring oats, durum wheat, combining pea, field bean	4.0	4.0	7 days before harvest
Post planting and pre- emergence of listed cereals, oilseed rape, combining peas, vining peas, field beans, mustard, linseed, sugar beet, swede, turnip, bulb onion and leek	1.5	1.5	Pre-emergence
Oilseed rape and linseed	4.0	4.0	14 days before harvest
Mustard	4.0	4.0	8 days before harvest.
All edible crops (stubble), all non-edible crops (stubble)	5.0 or 1.5	5.0	5 days before drilling or planting the following crop.  2 days before the drilling or planting of the
			following crop or 24 hours before cultivating
All edible and non-edible crops (destruction, before sowing/planting).	5.0	-	-
Grassland	6.0	6.0	5 days before harvest, grazing or drilling
Apple and pear orchards	5.0	5.0	After harvest but before green cluster stage
Cherry, plum and damson orchards	5.0	5.0	After harvest (post leaf fall)but before white bud stage
Green cover on land not being used for crop production	6.0	6.0	24 hours before cultivating
Non-crop including natural surfaces not intended to bear vegetation, permeable surfaces overlying soil, hard surfaces	5.0	-	-

Crops/situations:	Maximum individual dose (litres product/ hectare):	Maximum total dose (litres of product/ hectare/crop/ annum):	Latest time of application:
Forest nursery, farm forest:  • weed control	10.0	-	-
stump application	200ml/litre of water (20% solution of product in water	-	-
chemical thinning (by injection)	2.0ml per 10cm diameter (or less) of tree	-	-

# Other Specific Restrictions

When applying through rotary atomisers, the spray droplet spectra produced must be of a minimum Volume Median Diameter (VMD) of 200 microns.

Weed wipers may be used in any recommended crop where the wiper or chemical does not touch the growing crop.

For weed wiper applications, the maximum concentrations must not exceed the following:

- (a) Weed wiper mini 1:2 dilution with water
- (b) Other wipers 1:1 dilution with water

For stump application, the maximum concentration must not exceed 200 ml of product per litre of water (i.e. a 20% solution).

READ ALL OTHER SAFETY PRECAUTIONS AND DIRECTIONS FOR USE BEFORE USE

# **RECOMMENDATION TABLES**

AREA OF USE	TARGET WEEDS/USAGE	CROP	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
PRE-HARVEST ARABLE CROPS	Common	WINTER and SPRING WHEAT, DURUM WHEAT, WINTER and SPRING BARLEY and WINTER and SPRING OATS	1-25 shoots/m² Up to 75 shoots/m² Over 75 shoots/m²	2.0 3.0 4.0	80-250 l/ha*	Grain/seed moisture must not exceed 30% at spraying.  Harvest intervals: CEREALS, PEAS, BEANS OILSEED RAPE 14-21 days LINSEED 14-28 days MUSTARDS 8-10 days  Use high clearance, narrow wheeled tractors, wide booms and crop dividers.  DO NOT TREAT CROPS GROWN FOR SEED.  Where desiccating crops, check susceptibility of any weeds present.  Do not attempt to desiccate OILSEED RAPE or MUSTARD crops with significant secondary growth, uneven maturity, disease or stress.  Desiccate LINSEED when seeds are light brown and capsules brown; stems/leaves may be yellow/green.  Effects on brewing and baking have not been tested. Consult grain merchant or processor before use.  *Rotary atomisers may be used at a water volume of 40 I/ha. Ensure droplet diameter falls within the range 200-300 microns.

AREA OF USE	TARGET WEEDS/USAGE	CROP	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
PRE-HARVEST ARABLE CROPS (continued)	Common Couch	OILSEED RAPE MUSTARDS	Up to 75 shoots/m <sup>2</sup> Over 75 shoots/m <sup>2</sup>	3.0 4.0	100-250 l/ha#	# Use higher volumes for dense canopies.
		COMBINING PEAS FIELD BEANS	Up to 75 shoots/m <sup>2</sup> Over 75	3.0	80-250 l/ha*	* Rotary atomisers may be used at a water volume of 40 l/ha. Ensure droplet diameter falls within the range 200-300 microns.
		LINSEED	shoots/m <sup>2</sup> Up to 75 shoots/m <sup>2</sup> Over 75	3.0	80-250 l/ha	
	Perennial broad-leaved weeds and other perennial grasses	WINTER and SPRING WHEAT, DURUM WHEAT, WINTER and SPRING BARLEY and WINTER and SPRING OATS	shoots/m²  All levels/species	4.0	80-250 l/ha*	
		OILSEED RAPE MUSTARDS	All levels/species	4.0	200-250 l/ha	
		COMBINING PEAS FIELD BEANS	All levels/species	4.0	80-250 l/ha*	
		LINSEED	All levels/species	4.0	80-250 l/ha	

AREA OF USE	TARGET WEEDS/USAGE	CROP	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
PRE-HARVEST ARABLE CROPS (continued)	Harvest management	WINTER and SPRING WHEAT, DURUM WHEAT, WINTER and SPRING BARLEY and WINTER and SPRING OATS	Annual grasses, crop stems and leaves  Annual broad-leaved weeds	1.0	80-250 l/ha*	At harvest management rates, ANNUAL NETTLE, VOLUNTEER POTATO, ROSEBAY WILLOW HERB and POLYGONUM WEEDS will not be susceptible. WHEAT crops, WHEAT VOLUNTEERS and BROAD-LEAVED WEEDS may require up to 14 days before harvest.  Treated straw must not be used as a horticultural mulch.
	Crop desiccation	OILSEED RAPE MUSTARDS	All levels/species	3.0	100-250 l/ha#	# Use higher volumes for dense canopies.
	and annual weeds, prior to direct combining	LINSEED	All levels/species	3.0	80-250 l/ha	* Rotary atomisers may be used at a water volume of 40 l/ha. Ensure droplet diameter falls within the range 200-300 microns.

AREA OF USE	TARGET WEEDS/ USAGE	CROP/ SITUATION	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
STUBBLES, PRE-SOWING and PRE-PLANTING.	Common Couch	BEFORE ALL CROPS EXCEPT ORCHARDS	Up to 75 shoots/m <sup>2</sup> Over 75 shoots/m <sup>2</sup>	3.0	80-250 l/ha*	Do not cultivate immediately before spraying.  For PERENNIAL weed control, allow:
				4.0		<ul> <li>- 21+ days growth before spraying in spring</li> <li>- VOLUNTEER POTATOES to make ample top growth</li> <li>- 5 days before cultivating or drilling</li> </ul>
	Other perennial grasses; volunteer potatoes (autumn only)		All levels/species	4.0		For ANNUAL weed control, allow: - 24 hours before cultivating - 48 hours before direct drilling
	Perennial broad-leaved weeds		All levels/species	5.0		Allow 7 days before planting trees  * Rotary atomisers may be used at a water volume of
	Volunteer cereals and annual weeds		All levels/species	1.5		40 I/ha. Ensure droplet diameter falls within the range 200-300 microns.
	Perennial	BEFORE	Arable weeds	4.0		
	grasses and broad-leaved weeds	ORCHARD PLANTING	Pasture weeds	5.0		
POST SOWING/ PLANTING, PRE-EMERGENCE OF THE CROP	Volunteer cereals and annual weeds	LISTED CEREALS OILSEED RAPE, MUSTARD, LINSEED, PEAS, FIELD BEANS, SUGAR BEET, SWEDE, TURNIP, ONION and LEEK	All levels/species	1.5	80-250 l/ha*	CAUTION - Ensure that spraying precedes ANY crop emergence.  * Rotary atomisers may be used at a water volume of 40 l/ha. Ensure droplet diameter falls within the range 200-300 microns.

AREA OF USE	TARGET WEEDS/ USAGE	CROP/ SITUATION	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
GREEN COVER ON LAND NOT BEING USED	Common Couch	BEFORE OF DURING REMOVAL FROM	Up to 75 shoots/m <sup>2</sup> Over 75 shoots/m <sup>2</sup>	3.0 4.0	80-250 l/ha*	Before using on land taken out of production as part of a grant aided scheme, ensure compliance with the management rules of that scheme.
FOR CROP PRODUCTION EG "SET ASIDE"	Perennial broad- leaved weeds and other	PRODUCTION	All levels/species	4.0	hand-held equipment	Do not 'top' or cultivate immediately before application.
	Annual weeds:  • early autumn/spring		All levels/species	1.5	tractor mounted weed wiper	For PERENNIAL weed control, allow: - 21+ days growth before spraying in spring - 5 days before cultivating or drilling.  For ANNUAL weed control, allow:
	late spring/ summer		All levels/species	3.0		- 24 hours before cultivating.  Do not direct drill after set aside.
						* Rotary atomisers may be used at a water volume of 40 I/ha. Ensure droplet diameter falls within the range 200-300 microns.
						Avoid applications during stem elongation as reduced control and re-spray is likely.
ALL EDIBLE AND NON-EDIBLE CROPS (DESTRUCTION, BEFORE SOWING/PLANTING)	Vegetation management	-	Annual weeds  Perennial grasses  Perennial broad- leaved weeds	1.5 4.0 5.0	80-250 I/ha* or hand- held equipment (See mixing and spraying section)	Do not use under polythene or glass.  *Rotary atomisers may be used at a water volume of 40 l/ha. Ensure droplet diameter falls within the range 200-300 microns  Apply the annual weed dose at least 2 days before sowing/planting.  Apply at perennial weed doses at least 5 days before sowing/planting.
						Do not use in or alongside hedgerows

AREA OF USE	TARGET WEEDS/ USAGE	CROP/ SITUATION	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
GREEN COVER ON LAND TEMPORARILY OUT OF PRODUCTION EG "SET ASIDE"	Natural regeneration and cover crop destruction	AFTER SHORT ROTATION or LONG TERM REMOVAL FROM PRODUCTION	Annual weeds only Perennial grasses Perennial broad- leaved weeds	3.0 4.0 5.0	150-250 I/ha  or  hand held equipment	Best control of annual grasses is achieved between full ear emergence and senescence.
(continued)			Perennial broad- leaved weeds as listed below.	6.0+	or tractor mounted weed wiper	+Only for weeds listed as per grassland destruction application rate table below.
GRASSLAND - DESTRUCTION	Short rotation Ryegrass, longer leys and permanent pasture	GRASS	Short rotation Ryegrass with annual weeds Leys 2-4 years old with perennial	3.0	150-250 l/ha	Treat EITHER before grazing/mowing in June-Oct, when growth is 30-60 cm, not dense and lacking mature seeds, OR re-growth after grazing/mowing.  Select the application rate which controls/destroys the least susceptible weed and grass species present
			grass weeds  Long leys 4-7 years old with perennial broad-leaved weeds	5.0		in the sward.  Grass may be conserved or grazed by cattle, dairy cows or sheep 5+ days after spraying. REMOVE POISONOUS PLANTS BEFORE GRAZING/MOWING.
			Permanent pasture  See Weed Table below.	6.0		ONLY direct drill grass and clover EITHER into 1-2 year leys without mat, 5+ days after spraying, OR long leys with some mat, in the spring following autumn application.

APPLICATION RATE FOR GRASSLAND DESTRUCTION							
3.0l/ha	4.0l/ha		5.0l/ha		6.0l/ha		
Annual Meadow-grass Meadow Fescue Common Chickweed Meadow Foxtail Common Mouse-ear Rough Meadow-grass Dock Seedlings Speedwell species Italian Rye-grass Timothy Mayweed species	Black-bent Broad-leaved Dock Cock's-foot Common Bent Common Couch Creeping Bent	Creeping Soft-grass Curled Dock Perennial Rye-grass Plantains Soft Brome Yorkshire Fog	Common Sorrel	Red Clover Sedges Sheep's Sorrel Soft Rush Spear Thistle Tufted Hairgrass Yarrow	Common Ragwort Hard Rush Heath Rush Jointed Rush Molinia (Purple Moor-grass)	Nardus (Mat grass) Red Fescue White Clover* Yellow Rattle Sheep's Fescue	

<sup>\*</sup> White Clover is best cut in June and sprayed one month later.
\*\* At full frond expansion

AREA OF USE	TARGET WEEDS/ USAGE	CROP/ SITUATION	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
ORCHARDS	Perennial grasses, broad-leaved weeds	APPLE, PEAR, PLUM, CHERRY, DAMSON	All levels of most species	5.0	Hydraulic sprayers including hand held	Spray AFTER autumn leaf-fall and BEFORE: Apples, pears - green cluster stage Stone fruit - white bud stage
	Root suckers		-	5.0	200-400 I/ha or	Treat root suckers in late spring only.  Trees must have been established 2+ years.
					Rotary atomizers at 40 l/ha	Avoid contact with tree 30+ cm above ground.
IN-CROP (TRACTOR- MOUNTED WEED WIPER APPLICATION)	Bolters, weed beet, other weeds	ARABLE CROPS AND GRASSLAND SET ASIDE	All levels	1:1 dilution wi OR 1:2 dilution with w dry cond For 'new genera consult the man guidan	water in hot, litions. Ition' wipers nufacturer for	Weeds must be 10+ cm taller, and wiper 5+ cm higher, than desired vegetation.  Wipe dense populations twice, in opposite directions. BOLTING BEET requires three applications, 2 weeks apart, from early July to early August.  Contact Monsanto or your distributor for specific recommended weed wiper applicators.  POISONOUS WEEDS and grazing/mowing interval - See GRASSLAND section.

AREA OF USE	TARGET WEEDS/ USAGE	CROP/ SITUATION	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION, PERMEABLE	and along fences and walls at water volumes 80-40	sprayers (boom and knapsack) at water volumes 80-400 I/ha or	To not use under polythene or glass.  * Where rotary atomisers are used their droplet diameter must fall within the range 200-300µm.			
SURFACES OVERLYING SOIL. ALL SITUATIONS (DESTRUCTION, BEFORE PLANTING).			Perennial grasses and broad- leaved weeds	4.0-5.0 rotary atom wate 40 l/h held ment See N	rotary atomisers*at water volumes 40 I/ha or hand- held equip- ment. See Mixing & Spraying section.	
HARD SURFACES	Vegetation management	Including farmyards roadsides, paths, hard surfaces and along fences and walls	Annual weeds	1.5	Hydraulic sprayers (boom and knapsack) at water volumes 80-400	sprayers (boom and knapsack) at water  Apply this product carefully. Ensure spraying takes place only when weeds are actively growing (normally March to
		vvans	Perennial grasses and broad- leaved weeds	4.0-5.0	I/ha or rotary atomisers*at water volumes 40 I/ha or hand- held equip- ment.	weeds including those in the 30cm swath covering the kerb edge and road gulley – do not overspray drains
					See Mixing & Spraying section.	

# FORESTRY/FARM FORESTRY WEED CONTROL

RODEO can be used for site preparation and for weed control in planted out trees

AREA OF USE	TARGET WEEDS/ USAGE	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
FORESTRY: - PRE-PLANTING	Arable land, planting, replanting, & grassland areas	Arable weeds Grassland weeds	4.0 5.0	Hydraulic sprayers: 80-250 I/ha or rotary atomisers: 40 I/ha*	All tree species may be planted 7 days or more after treatment.  *Where rotary atomisers are used their droplet diameter must fall within the range 200-300µm.
FORESTRY: - POST-PLANTING (DIRECTED) IN CONIFERS & BROAD-LEAVED TREES	Clean-up around trees with knapsack applicators	and broad-leaved weeds  Woody weeds: Bracken/Beech Brush/Brambles Sycamore/Oak Hazel/Willow/ Ash (excluding Rhododendron  Heather (peat soils)	4.0 3.0 4.0 6.0	Hand held equipment.  Knapsack: Apply as a 2% concentration or  Weed wiper mini: apply as a concentration of 1 part RODEO to 2	It is ESSENTIAL to use a TREE GUARD for all applications made in the growing season.  Treat bracken after frond tips are unfurled but before senescence.  Treat heather late August to end September.  All other woody weeds are treated June to August, before leaf senescence but after new growth of crop has hardened.  (*) For improved control of Rhododendron apply 6.4 I/ha RODEO, adding Mixture B (ADJ AO161) at 2% of spray volume. Application using a weed wiper is not suitable.
		Heather (mineral soils)  Rhododendron (*)	10.0	parts water (see Mixing & Spraying section)	

FORESTRY: - POST-PLANTING (OVERALL DORMANT SEASON IN CERTAIN CONIFERS – CONIFER RELEASE)	Grass weeds: -Lowland areas -Upland areas  Bracken  Beech & Birch  Brambles	Black Bent, Cock's- foot, Common Couch, Creeping Soft-grass, False Oat-grass, Fescues, Meadow- grasses, other Bent species, Purple Moor-grass, Sweet Vernal-grass, Tufted Hair-grass, Wavy Hair-grass, Wood Small-reed (Bush grass)  All levels of all species  All levels of all species	1.5 2.0 2.0 2.0 3.0	Hydraulic sprayers: 200-250 I/ha or hand-held equipment - see 'Mixing and Spraying' section	DO NOT OVERALL SPRAY trees being grown for ORNAMENTAL PURPOSES, including CHRISTMAS TREES.  Species safe to spray when fully dormant and leader growth has hardened:  Corsican, Lodgepole and Scots Pine, Norway Spruce, Sitka Spruce, Lawson Cypress, Western Red Cedar.  Douglas Fir and Noble Fir - safe to spray when fully dormant and leader growth has hardened but NOT in spring.  If overall application takes place after the optimum timing weed control may be reduced. It is advisable to spray a limited area of forest to test crop safety under local conditions before widespread overall application in subsequent years. These recommended application rates refer to forestry usage only.  Inadequate control may result if used in other areas.  Caution: The timing of hardening of leader growth varies considerably between locations and between seasons. It may occur as early as the end of July or be delayed to October or later. To avoid damage to Lammas growth, sprays should be directed away from leaders.
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AREA OF USE	TARGET WEEDS/ USAGE	WEED INFESTATION	APPLICATION RATE I/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
FORESTRY: - STUMP APPLICATION FOR CHEMICAL THINNING	Deciduous trees  Coniferous trees	All species All species	10% solution of RODEO in water 20% solution of RODEO in water		Apply the solution to saturate the rim of the newly cut surface, with a suitably adapted clearing saw, spot gun or paintbrush. Treat as soon as possible after felling, in the period November to March/April. Do not apply in the period of active sap flow in the spring/early summer. Do not cut trenches or drill holes and fill with the solution or use undiluted product.  Note: for ease of identification of treated areas a suitable, commercially available, water-soluble dye may be added to the prepared spray solution.
FORESTRY: - CHEMICAL THINNING BY INJECTION OF TREE STEMS	Coniferous and deciduous species	-	2 ml neat RODE cm diameter (c	O per cut per 10 or less) of tree	Use a hatchet to cut one notch in trees up to 10cm diameter and apply 2 ml of the solution to each cut. Use two or three notches in trees over 10cm diameter. Do not treat in the period of active sap flow in the spring/early summer.

#### Mixing and spraying

Correctly calibrate all sprayers under field or use conditions prior to application.

# a) Conventional Hydraulic Sprayers

Knapsack sprayers and tractor mounted or powered sprayers may be used. These should be capable of applying accurately 80-400 I/ha within a pressure range of 1.5-2.5 bars (20-35 psi).

#### Medium Volume Application (150-300 I/ha)

Avoid high water volumes (> 300 l/ha) which may lead to run-off from the treated vegetation, resulting in reduced control. Nozzles producing a medium or coarse spray (BCPC definition) should be used to minimise the risk of drift:

eg. Knapsack Hypro AN 2.0, AN 4.0

Cooper Pegler Floodjet green, red

Tractor Hypro 04-F110, 08-F110

Tee Jet 11004, 11008

# Low Volume Application (minimum 80 l/ha)

Low volume application can be achieved by reducing pressure and appropriate nozzle selection. Low drift nozzles which produce a medium spray (BCPC definition) should be used to minimise the risk of drift,

eg. Knapsack Cooper Pegler VLV 100

Hypro AN 1.0

Tractor Hypro Lo Drift

## Filling the Sprayer

Knapsack Half fill the spray tank with clean water, add the correct amount of

RODEO and top up with water. Mix thoroughly.

• Tractor Mounted To avoid foaming do not use top tank agitation. Half fill the spray

tank with clean water, start gentle agitation, then add the correct amount of RODEO. Top up the tank with water to the required level.

Use of a defoamer may be necessary.

#### b) Rotary Atomisers – for use in orchards

When rotary atomisers are used to apply RODEO ensure that the droplet diameter falls within the range 200-300 microns for all uses.

#### c) Hand-held Wipers

RODEO may be applied through the weed wiper mini. Use a concentration of 1 part RODEO to 2 parts of water and add a scarlet dye if required. Care should be taken to avoid dripping onto wanted vegetation.

# d) Cut Stump Application

Enso attachment to rotary saws:

This technique is specific to scrub clearance in forestry. A water-soluble dye may be added to RODEO to help identify treated stumps.

#### HAND-HELD EQUIPMENT: SPECIFIC GUIDANCE

### e) Knapsack Sprayer Applicators

When used at a walking speed of 1 m/sec to apply a swath of 1 m width, most knapsack sprayers deliver 200 l/ha spray volume (or 10 litres per 500 m²). To apply 4.0l/ha of RODEO, therefore, use a 2% solution (e.g. 200 ml RODEO made up to 10 litres).

When used as above, knapsack sprayers fitted with low volume nozzles typically deliver 100 l/ha spray volume (or 10 litres per 1000 m²). To apply 4.0l/ha RODEO in this case, use a 4% solution.

# Filling the sprayer - hand-held machines

Stir the correct amount of RODEO into the sprayer half filled with clean water. Top up with water, close the top and shake gently to ensure good mixing.

#### f) Spot Gun Applicators – for treatment of individual weeds

Apply 5 ml of spray to target weed, using a narrow cone TG-3 or TG-5 nozzle.

Spot Diameter	Amount of RODEO				
(metres)	(ml) per 5 litres of spray solution				
	3.0l/ha	4.0 l/ha	5.0l/ha		
0.3	20	28	35		
0.6	85	110	140		

#### Compatibility

Do not tank mix Rodeo with adjuvants, pesticides or fertilisers except as advised by Monsanto. For up to date information on compatible products contact Monsanto UK Limited (tel: 01954 717575).

RODEO is compatible with Mixture B (ADJ 0161). Where conventional hydraulic sprayers are being used Mixture B may be added to the spray tank solution, at a rate of 2% of the final water volume, for all pre-plant and post-plant directed sprays only.

DO NOT APPLY WITH MIXTURE B TO EDIBLE CROPS, OR GRASSLAND WEEDS.

Do not tank-mix RODEO when using rotary atomiser sprayers.

For hydraulic sprayers: maintain continuous agitation when using RODEO in tank mixture.

For knapsack sprayers: mix thoroughly and use immediately when using RODEO in tank mixture.

# COMPANY ADVISORY INFORMATION

This section is not part of the Product Label under the Plant Protection Products Regulations 1995 and provides additional advice on the product.

#### **General Information**

RODEO is an advanced glyphosate formulation which, having no hazard classification, offers a high standard of operator safety. To maximise the intrinsic safety of RODEO to operator, consumer and environment, the label recommendations and the DEFRA/HSC publication "Code of Practice for using Plant Protection Products, 2006'should be adhered to.

RODEO herbicide is a foliar-acting herbicide with broad-spectrum activity. It is taken up by foliage and translocated to underground roots, rhizomes and stolons, providing control of both annual and perennial grasses and broad-leaved weeds. RODEO is rapidly adsorbed onto particulate matter in soils and water and is quickly degraded by the micro-organisms present in soil and aquatic bottom sediments. Upon adsorption, the herbicidal properties of RODEO are lost, permitting drilling of crops within 48 hours of application. When used as directed, any water subjected to RODEO spray drift may be used immediately for irrigation purposes. Until degraded, the active ingredient in RODEO, glyphosate, is practically immobile in soils and is, therefore, unlikely to contaminate groundwater.

RODEO is recommended for control of annual and perennial weeds in non-crop areas such as roadsides, paths, hard surfaces and along fences and walls. It is recommended for cleaning up weedy ground prior to planting or sowing. RODEO may also be used as a directed spray in ornamental plantings, and in forestry for site preparation and post-planting treatments.

# Symptoms on the weeds

Symptoms of treatment are generally first seen 7-10 days, or longer (if growth is slow), after spraying. These take the form of leaf reddening followed by yellowing and are usually quicker to appear on grasses than on broad-leaved weeds. Reaction of nettles is slow.

#### Weed resistance strategy

There is low risk for the development of weed resistance to RODEO. There are no known cases of weed resistance to glyphosate in UK. Strains of some annual weeds (e.g. Black-grass, Wild oats and Italian Ryegrass) have developed resistance to certain herbicides which may lead to poor control using those products. A strategy for preventing and managing such resistance should be adopted. This should include integrating herbicides with a programme of cultural control measures. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer (Monsanto).

Growers are encouraged to implement an anti-weed resistance strategy based on (a) good agricultural practices and (b) good plant protection practices by:

- Following label recommendations
- The adoption of complimentary weed control practices
- Minimising the risk of spreading weed infestations
- The implementation of good spraying practice to maintain effective weed control
- Using the correct nozzles to maximise coverage
- Application only under appropriate weather conditions
- Monitoring performance and reporting any unexpected results to Monsanto UK Ltd (Tel: 01954 717575)

#### **General Cautions**

Take extreme care to avoid drift, particularly when using near or alongside hedgerows. The use of low drift nozzles such as 'air induction' and 'pre-orifice' nozzles are recommended.

#### Calibration

All sprayers should always be calibrated before use. This is essential when nozzles are changed or if a different dose of product is to be applied.

#### **Unused Spray Mixture**

Once RODEO has been diluted in the spray tank, it should be used as soon as possible. However, if unexpected delays occur the diluted spray can be safely stored. Agitate well before use. Storage for longer than 3 days may result in reduced efficacy.

## **Sprayer Maintenance**

Ensure the sprayer is in good working order and replace damaged, worn or malfunctioning parts before use. Carry out maintenance according to the instructions of the sprayer manufacturer.

# Sprayer Hygiene

It is essential to thoroughly clean-out spray tanks, pumps and pipelines and nozzle or disc assemblies, with a recommended detergent cleaner, between applying this product and other pesticides to avoid contamination from pesticide residues.

## Disposal

Follow the guidance on the disposal of surplus spray solution, tank washings, concentrate and containers as given in Section 5 of DEFRA/HSC publication "Code of Practice for using Plant Protection Products, 2006

#### **Trade Mark References**

Monsanto<sup>™</sup> and the vine symbol are registered trade marks of Monsanto Technology LLC.

All other brand names referred to are trade marks of other manufacturers in which proprietary rights may exist.

Monsanto does not warrant that the purchase or use of equipment mentioned in this document will not infringe any patent or trade mark registration.

# **SAFETY DATA SHEET**

Following the instructions on this Product Label for the specified uses should ensure that the product is used safely and efficaciously for those uses.

A full Material Safety Data Sheet is available on request. Telephone Monsanto Technical Helpline on 01954 717575 or download from <a href="https://www.monsanto-ag.co.uk">www.monsanto-ag.co.uk</a>.