H - Herbicide MONSANTO AMENITY GLYPHOSATE XL

A foliar applied translocated herbicide for the control of emerged weeds in industrial and amenity situations, in forestry and on hard surfaces.

Degraded by micro-organisms/microbes in the soil.

A soluble concentrate containing 360 g/l glyphosate, present as 41.6 w/w of the isopropylamine salt of glyphosate

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

MAPP Number: 17997

Contents **e** 5 litres

PROTECT FROM FROST

Not for reformulation or repackaging. No licence is granted under any patent.

Imported

© Monsanto 2017 Lot number/production date:



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

MONSANTO AMENITY GLYPHOSATE

A soluble concentrate containing 360 g/l glyphosate present as (41.6% w/w) of the isopropylamine salt of glyphosate

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

IMPORTANT INFORMATION			
FOR PROFESSIONAL USE ONLY AS AN INDUSTRIAL/AMENITY/FORESTRY HERBICIDE			
Crops/situations: Natural surfaces not intended to bear vegetation, permeable surfaces overlying soil, hard surfaces; Amenity vegetation; Forest nursery, forest (weed control, stump application and chemical thinning).			
Maximum individual dose: Maximum number of treatments: Latest time of application: Other specific restrictions:	} } Full details are given in } the attached leaflet } (see Crop Specific Information - marked #)		
READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.			

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 when handling the concentrate or handling contaminated surfaces.

*WEAR SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when applying by hand-held controlled droplet application, (CDA) equipment.

*WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when applying by hand-held weed wiper.

* However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WHEN USING DO NOT EAT DRINK OR SMOKE. WASH HANDS AND EXPOSED SKIN before eating and drinking and after work.

Environmental protection

Do not contaminate water with the product or its container. 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 NON-TARGET PLANTS.

DO NOT MIX, STORE OR APPLY MONSANTO AMENITY GLYPHOSATE XL 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 of at least 6 hours and preferably 24 hours rain-free must follow application of Monsanto Amenity Glyphosate XL.

Do not spray onto weeds which are naturally senescent, or where growth is impaired by drought, high temperatures, a covering of dust, flooding or frost at, or immediately after application, otherwise poor control may result.

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

After application, large concentrations of decaying foliage, stolons, roots or rhizomes should be dispersed or buried by thorough cultivation before crop drilling.

Applications of lime, fertilizer, farmyard manure and pesticides should be delayed until 5 days after application of Monsanto Amenity Glyphosate XL.

Weeds controlled

Monsanto Amenity Glyphosate is a foliar acting herbicide which controls annual and perennial grasses and most broad-leaved weeds when used as directed. 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 Monsanto Amenity Glyphosate herbicide once grasses and broad-leaved weeds have emerged and they have ACTIVELY GROWING green leaves.

- PERENNIAL GRASSES must have a full emergence of healthy, green leaf. (Common Couch, for example, becomes susceptible at the onset of tillering and new rhizome growth commences which usually occurs when plants have 4-5 leaves, each with 10-15cm 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.
- OTHER SPECIES recommendations for specific Areas of Use are given in the Recommendation Tables, pages 6 and 7
- 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 Monsanto Amenity Glyphosate XL are lost permitting the drilling of crops 48 hours after application. Planting of trees, shrubs etc may take place 7 days after application. Grass seed may be sown from 5 days after treatment.

#Crop specific information

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

Crops/situations:	Maximum individual dose (litres product/ hectare):		
Natural surfaces not intended to bear vegetation, permeable surfaces overlaying soil, hard surfaces	5.0		
Amenity vegetation	5.0		
Forestry, forest nursery:			
Weed control	5.0		

Other specific restrictions:

The maximum individual dose must not exceed 22.5g/l glyphosate for hydraulic knapsack sprayers.

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 crop where the wiper or chemical does not touch the growing crop.

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

Weed wiper Mini Other wipers 1:2 dilution with water } Refer to weed wiper guidance under 1:1 dilution with water } 'Mixing & Spraying' section

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March 2017

RECOMMENDATION TABLES

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 SURFACES OVERLYING SOIL, RAILWAY BALLAST	Vegetation management	Including roadsides, paths, and along fences & total weed control on industrial sites	Annual weeds	1.5	Hydraulic sprayers : 80-250 I/ha or Rotary atomisers* water volumes 40 I/ha or hand-held equipment. See Mixing & Spraying section.	Use areas include: Cleaning up weedy ground prior to planting or sowing and as a directed spray in ornamental plantings. Hydraulic sprayers, rotary atomisers or weed wipers may be used. DO NOT USE IN OR ALONGSIDE HEDGEROWS. DO NOT USE UNDER POLYTHENE OR GLASS
			Perennial grasses and broad-leaved weeds	4.0 - 5.0		
Hard surfaces (excluding railway ballast)	Vegetation management	including roadsides, paths, concrete and alongside walls	Annual weeds	1.5	Hydraulic sprayers : 80-250 I/ha or Rotary atomisers* water volumes 40 I/ha or hand-held equipment.	Apply this product carefully. Ensure spraying takes place only when weeds are actively growing (normally March to October) and is confined only to visible weeds including those in the 30cm swath covering the kerb edge and road gulley – do not overspray drains
			Perennial grasses and broad-leaved weeds	4.0 - 5.0		
					See Mixing & Spraying section.	
AMENITY VEGETATION	Vegetation management	Areas of semi-natural or ornamental vegetation including trees. Areas of bare soil around ornamental plants or areas intended for ornamental planting or clearance of allotments	Annual weeds	1.5	80-400 l/ha*	Hydraulic sprayers, rotary atomisers or weed wipers may be used DO NOT USE IN OR ALONGSIDE HEDGEROWS.
			Perennial grasses and broad-leaved weeds	4.0 - 5.0		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.

Forestry weed control

Monsanto Amenity Glyphosate XL can be used for site preparation and for weed control in planted out trees.

AREA OF USE	TARGET WEEDS/USAGE	WEED INFESTATION	APPLICATION RATE L/HA.	WATER VOLUME	APPLICATION TIMING & 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 applications.	Annual/perennial grasses and broad-leaves	4.0	Knapsack: 200-250 I/ha or Weed wiper mini: apply as a concentration of 1 part Monsanto Amenity Glyphosate XL to 2 parts water (see Mixing & Spraying section)	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- August, before leaf senescence (but after new growth of crop has hardened).

Mixing and spraying

Monsanto Amenity Glyphosate XL mixes readily with water and can be applied in spray volumes ranging from 80-400 l/ha using tractor mounted, knapsack, rotary atomisers and hand-held sprayers. Specialised application equipment such as weed wipers and spot gun applicators may be used where indicated.

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

a) <u>Tractor mounted and powered sprayers</u>

These should be capable of applying accurately 80-400 l/ha within a pressure range of 1.5-2.5 bars (20-35 psi).

Half fill the spray tank with clean water, start gentle agitation, and then add the correct amount of Monsanto Amenity Glyphosate XL. Top up the tank with water to the required level. To avoid foaming do not use top tank agitation. Use of a defoamer may be necessary.

All applications using hydraulic sprayers (including knapsack sprayers) to be as 'MEDIUM' or 'COARSE' spray quality (BCPC definition).

Medium Volume application (150-300 l/ha)

Avoid high water volumes (>300 l/ha) which may lead to run-off from the treated vegetation, resulting in reduced control. Low drift nozzles such as air induction and pre-orifice types producing a medium or coarse spray (BCPC definition) should be used to minimise the risk of drift.

Low Volume Application (minimum 80 l/ha)

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

b) <u>Knapsack sprayers</u>

Recommended delivery range is 80 - 300 I/ha. Half fill the spray tank with clean water, add the correct amount of Monsanto Amenity Glyphosate XL and top up with water. Fill according to best practice as given on the CPA's Voluntary Initiative website (www.vountaryinitiative.org.uk)

When used at a walking speed of 1 m/sec to apply a swath of 1 m width, most knapsack sprayers fitted with a Hypro AN 0.6-AN2.4 or similar nozzle deliver approximately 200 l/ha spray volume (or 10 l per 500 m²). To apply 5.0 l/ha of MONSANTO AMENITY GLYPHOSATE XL, therefore, use 50ml of product for each 2 litres of spray liquid required. Similarly, knapsack sprayers fitted with low volume nozzles such as - D/0.23/1-D/0.68/1 typically deliver approximately 100 l/ha spray volume. To apply 5.0 l/ha MONSANTO AMENITY GLYPHOSATE XL in this case, use 100ml of product for each 2 litres of spray liquid required.

c) <u>Rotary Atomisers</u>

Tractor-mounted boom sprayers and hand-held machines are suitable for use in some situations to apply a minimum spray volume of 40 I/ha.

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

Stir the correct amount of Monsanto Amenity Glyphosate XL to control the particular target species into the sprayer bottle half filled with clean water. Top up with water, close the top and shake gently to ensure good mixing.

Do not tank mix Monsanto Amenity Glyphosate XL when using rotary atomiser sprayers.

d) <u>Weed Wipers</u>

For ropewick applicators use a concentration of 1 part Monsanto Amenity Glyphosate XL to 2 parts of water and add a water-soluble dye if required. Care should be taken to avoid dripping onto wanted vegetation.

For new generation weed wipers, use 1 part Monsanto Amenity Glyphosate XL to 10 or 20 parts of water or as directed by manufacturer's instructions or as directed by manufacturer's instructions.

e) <u>Spot Gun Applicators</u>

Spot gun applicators are for the treatment of individual weeds. Apply 5 ml of spray to target weed, using a narrow cone TG-3 or TG-5 nozzle.

Spot Diameter (metres)	Amount of Monsanto Amenity Glyphosate XL (ml) per 5 litres spray solution for targeted dosages of:		
	3.0 l/ha	4.0 l/ha	5.0 l/ha
0.3	20	28	35
0.6	85	110	140

Compatibility

Do not tank mix Monsanto Amenity Glyphosate XL 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).

For hydraulic sprayers: maintain continuous agitation when using Monsanto Amenity Glyphosate XL in tank mixture.

For knapsack sprayers: mix thoroughly and use immediately when using Monsanto Amenity Glyphosate XL 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

Monsanto Amenity Glyphosate XL 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. Monsanto Amenity Glyphosate XL is rapidly adsorbed onto particulate matter in soils and water and is quickly degraded by the microorganisms present in soil and aquatic bottom sediments. Upon adsorption, the herbicidal properties of Monsanto Amenity Glyphosate XL are lost, permitting drilling of crops within 48 hours of application. When used as directed, any water subjected to Monsanto Amenity Glyphosate XL spray drift may be used immediately for irrigation purposes. Until degraded, the active ingredient in Monsanto Amenity Glyphosate XL, glyphosate, is practically immobile in soils and is, therefore, unlikely to contaminate groundwater. To maximise the safe use of Monsanto Amenity Glyphosate XL to operator, consumer and environment, the label recommendations and the DEFRA/HSC/NAW publication "Code of Practice for Using Plant Protection Products" of January 2006, should be adhered to.

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. **Effects of weather**

See Directions for Use (Restrictions).

Monsanto Amenity Glyphosate will remain efficacious at low but not freezing temperatures however the onset of symptoms will be delayed.

A covering of dew may reduce efficacy where run-off occurs. Reduced control is likely where weed growth is impaired by natural senescence, drought, high temperature, a covering of dust, flooding or severe/prolonged frost at, or immediately after, application.

Weed resistance strategy

There is low risk for the development of weed resistance to Monsanto Amenity Glyphosate XL. 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 herbicides which may lead to poor control. 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 a 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 (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.

After application, large concentrations of decaying foliage, stolons, roots or rhizomes should be dispersed or buried by thorough cultivation before crop drilling.

New Generation Weed Wipers

Logic Contact 2000 Carier Rollmaster Allman Ecowipe Rotowiper (UK) Ltd C-Dax™ Eliminator Weedswiper™

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. Traces of Monsanto Amenity Glyphosate XL left in the equipment may seriously damage or destroy crops sprayed later. **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 Monsanto Amenity Glyphosate XL 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.

Disposal

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

Environmental Information Sheet

An Environmental Information Sheet for this product is available from the CPA's Voluntary Initiative website (<u>www.voluntaryinitiative.org.uk</u>)

Material Safety Data Sheet

A material safety data sheet for this product is available on request (telephone 01954 717575) or can be downloaded from the Monsanto website: www.monsanto-ag.co.uk

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