





**Bayer Amenity** 



Improved performance



480 g/L glyphosate



Rainfast from 1 hour



Low drift formulation

For the control of annual and perennial grass and broad-leaved weeds.

A foliar applied translocated herbicide for the control of emerged weeds in industrial and amenity situations, in grassland, orchards, forestry and in aquatic areas.

Degraded by micro-organisms/microbes in the soil.

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

This product contains a soluble concentrate containing 480 g/l glyphosate, present as 588 g/l (43.8% w.w.) of the potassium salt of glyphosate.

MAPP Number 15534

PROTECT FROM FROST

GROUP

9

HERBICIDES

UFI: WYU1-T0P0-D002-AADX

Lot number/production date: see back A2 – MON30363947A e 5 Litres



(H) - Herbicide

A soluble concentrate containing 480 g/L glyphosate, present as 588 g/L (43.8% w/w) of the potassium salt of glyphosate.

MONSANTO (UK) LIMITED

230 Cambridge Science Park, Milton Road, Cambridge, CB4 0WB, UK. Telephone: 01223 226500 Website: https://cropscience.baver.co.uk For 24-hour emergency information contact Bayer CropScience Ltd.
Tel: 00800 1020 3333

### ROUNDUP PROVANTAGE

Contains 480 g/L glyphosate, present as 588 g/L (43.8% w/w) of the potassium salt of glyphosate.

Toxic to aquatic life with long lasting effects.

Wear protective gloves/protective clothing/eye protection/face protection.

Collect spillage.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

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



### IMPORTANT INFORMATION:

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL / HORTICULTURAL / INDUSTRIAL / FORESTRY / AQUATIC HERBICIDE

Crops/situations:

All edible and non-edible crops (destruction, before sowing/planting). Grassland. Natural surfaces not intended to bear vegetation; permeable surfaces overlaying soil; hard surfaces. Enclosed waters, open waters, land immediately adjacent to aquatic areas. Forest, forest nursery (weed control, stump application and chemical thinning). Apples, pears; plums, cherries, damsons. Amenity vegetation.

Maximum individual dose:
Maximum number of treatments:
Latest time of application:
Other specific restrictions:

Full details are given in the Statutory Area on the attached leaflet

(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 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 or spot gun equipment or when making cut stump treatments OR 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.

Recommendations apply to the use of this herbicide for the control of weeds growing in or by water and must be read in conjunction with the

Official Code of Practice entitled "Guidelines for the Use of Herbicides on Weeds in or near Watercourses and Lakes" obtainable from Department of Environment and Rural Affairs (DEFRA publications 08459 556000), Scottish Executive, Environment and Rural Affairs Department, Department of Agriculture and Rural Development for Northern Ireland and the National Assembly for Wales Agriculture Department.

The Water Act, 1989, The Water Resources Act 1991, the Control of Pollution Act 1974, The Northern Ireland Water Resources Act 1992 and the Control of Pollution and Local Government (Northern Ireland) Order 1978, may apply to the act of applying Roundup ProVantage for the control of weeds growing in or by reservoirs and water courses, e.g. rivers, streams, ditches, drains and ponds/lakes discharging into such water courses.

### 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. EMPTY CONTAINER COMPLETELY and dispose of safely. RINSE CONTAINER THOROUGHLY by using an integrated pressurerinsing 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.



# RECOMMENDATION TABLES

AREA OF USE	CROP/ SITUATION	TARGET WEEDS/USAGE	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
ALL EDIBLE AND NON-EDIBLE CROPS (DESTRUCTION, BEFORE SOWING/PLANTING)	Vegetation management	-	Annual weeds Perennial grasses Perennial broad-leaved weeds	1.0 3.0 3.75	80-250 L/ha* or hand-held equipment section	*Rotary atomisers may be used at a water volume of 10-40 L/ha. Ensure droplet diameter falls within the range 200-300 microns  Do not use in or alongside hedgerows
GRASSLAND - DESTRUCTION	ESTRUCTION Ryegr longe perma		ASS Short rotation Ryegrass, longer leys and permanent pasture  Short rotation Ryegrass with annual weeds Leys 2-4 years old with perennial grass weeds  Long leys 4-7 years old with perennial broad-leaved weeds	2.25 3.0 3.75	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 regrowth after grazing/mowing.  Select the application rate which controls/destroys the least susceptible weed and grass species present 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 4.5	If Ragwort is present, the guidance in the DIRECTIONS FOR USE must be followed.  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 3.75 L/HA 2.25 L/HA 3.0 L/HA 4.5 L/HA Annual Meadow-grass Nardus (Mat grass) Common Chickweed Meadow Foxtail Broad-leaved Dock Common Sorrel Red Fescue Curled Dock Common Mouse-ear Rough Meadow-grass White Clover\* Sheep's Sorrel Perennial Rye-grass Dock Seedlings Speedwell species Common Bent Creeping Buttercup\* Soft Rush Jointed Rush Yellow Rattle Italian Rye-grass Plantains Molinia (Purple Moor-grass) Sheep's Fescue Timothy Common Couch Creeping Thistle Spear Thistle Soft Brome Mayweed species Tufted Hairgrass Dwarf Thistle Yarrow Perennial Sow-thistle

\* White clover is best cut in June and sprayed one month later \*\* At full frond expansion

AREA OF USE	CROP/SITUATION	TARGET WEEDS/ USAGE	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
NATURAL SURFACES NOT INTENDED	Vegetation	Including roadsides,	Annual weeds	1.0	Hydraulic sprayers (boom and knapsack) at water	Do not use under polythene or glass.
TO BEAR VEGETATION, PERMEABLE SURFACES OVERLYING SOIL, RAILWAY BALLAST	management	paths and along fences	Perennial grasses and broad-leaved weeds			
HARD SURFACES	Vegetation	including roadsides,	Annual weeds	1.0	Hydraulic sprayers (boom and knapsack) at water	Apply this product carefully. Ensure spraying takes place only when
(EXCLUDING RAILWAY BALLAST)	management	paths, concrete and alongside walls	Perennial grasses and broad-leaved weeds	3.75	volumes 80-250 L/ha or Rotary atomisers* or hand-held equipment. See Mixing & Spraying section.	weeds are actively growing (normally March to October) and is confined only to visible weeds including those in the 30 cm swath covering the kerb edge and road gulley – do not overspray drains
AMENITY VEGETATION	Vegetation	Ornamental areas	Annual weeds	1.0	Hydraulic sprayers (boom and knapsack) at water	Do not use under polythene or glass.
	management		Perennial grasses and broad-leaved weeds	3.75	volumes 80-400 L/ha or Rotary atomisers*at water volumes 10-40 L/ha or hand-held equipment. See Mixing & Spraying section.	*Rotary atomisers may be used at a water volume of 10-40 L/ha. Ensure droplet diameter falls within the range 200-300 microns

# Japanese Knotweed control

Japanese Knotweed is an invasive alien species reducing biodiversity in areas where it become established and propagating from tiny fragments of root, often spreading along watercourses. It is scheduled under the Wildlife and Countryside Act 1981 and all parts of the plant must be treated as Controlled Waste under the Environmental Protection Act 1990.

Roundup ProVantage can be used alone as part of an eradication programme or as part of an integrated programme in conjunction with soil disturbance or removal. Dormant rhizomes will not be controlled by Roundup ProVantage, but may be stimulated to grow by soil disturbance and then sprayed. It is particularly suitable for use near water. Sites must be monitored for at least three years and re-treated as necessary.

REA OF USE	TARGET WEED	METHOD	APPLICATION RATE / Water volume		<u> </u>			
nenity vegetation; Forestry; atural surfaces not intended bear vegetation, permeable	Japanese Knotweed	Foliar application	3.75 L/ha Hydraulic sprayers 80-250 L/ha	For best results apply after the onset of flowering (usually August/September) but before dieback. Use specialist extending hand lances for stands 2-3 m tall. Good coverage is essential; spray the underside as well as the upper surface of the leaves.  Or  Only as part of an integrated programme, spray when stems are 1-1.5 m high (Usually at end of May) and repeat once regrowth reaches 1-1.5 m again later in same season or the following year. (More re-growth will occur from this timing.)			orest Roundup	
rfaces overlying soil, hard	Stem		or hand-held equipment				AREA OI	
rfaces; iclosed waters, open waters,							Forestry:	
nd immediately adjacent to uatic area			Stem filling technique	10 ml of 15% solution per stem	See National Trust Methodology for full details*. Cut stems approx. 200mm above base of cane & 40mm above node. Rupture the central stem tissue with a screwdriver and use a spot gun to insert Roundup ProVantage into the hollow stem within 15 minutes of cutting.	Use where overall spraying is not desirable, especially near watercourses or among desirable plants. Timing: After mid-August but before	or F	Forestry: - Post-pl
		Stem injection technique	1.5 ml of neat solution per stem	Using specialist stem injection equipment, inject directly into individual stems.	leaf fall. Stems must be >8 mm diameter	Col	Conners	
		Hand-held weed wiper	1 part Roundup ProVantage to 3 parts water	Use where overall spraying is not desirable or target plants are small or unsuitat re-treatment following foliar spraying.	ole for stem filling, (< 8 mm) e.g. in			

AREA OF USE	CROP/SITUATION	TARGET WEEDS/USAGE	WEED INFESTATION	APPLICATION Rate L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
ORCHARDS	APPLE, PEAR, PLUM, CHERRY, DAMSON	Perennial grasses, broad-leaved weeds	All levels of most species	3.75	200-400 L/ha	Spray AFTER autumn leaf-fall and BEFORE: Apples, pears - green cluster stage
		Root suckers	-	3.75		Stone fruit - white bud stage Treat root suckers in late spring only. Trees must have been established 2+ years. Avoid contact with tree 30+ cm above ground.
ENCLOSED WATERS, OPEN WATERS, LAND IMMEDIATELY ADJACENT TO AQUATIC AREAS	-	Emerged Weeds - Reeds, Rushes, Sedges, Grasses and Watercress	All levels/species	3.75	200-400 L/ha Optimum 250 L/ha or hand-held equipment (p.12)	Consult appropriate Environment Agency regional office before use.  On water-lilies it is preferable to use a tractor or boat-mounted sprayer. During spraying do not exceed a pressure of 2.0 bars (30 p.s.i.). When using a tractor mounted sprayer do not exceed 8 kph (5 mph).
AQUATIO AILAO		Floating Weeds - White water-lily - Yellow water-lily	All levels	4.5	100-200 L/ha or hand- held equipment (p.12)	Use boat-mounted sprayers at slowest practical speed. Always apply against direction of any current. When disturbed by wash, WATER-LILIES may require re-treatment.

AREA OF USE	CROP/SITUATION	TARGET WEEDS/USAGE	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
GRASSLAND, PLANT FREE AREAS, ORNAMENTAL PLANTINGS, AMENITY VEGETATION	-	Individual weeds	All levels	1:2 dilution dry o For 'new g consult the	with water for wick- veed wipers  OR with water in hot, conditions. eneration' wipers manufacturer for uidance.	Weeds must be 10+ cm taller, and wiper 5+ cm higher, than desired vegetation. Contact Monsanto or your distributor for specific recommended weed wiper applicators.  Treated POISONOUS WEEDS must be removed or allowed to completely degenerate before grazing or conserving. If Ragwort is present, the guidance in the 'DIRECTIONS FOR USE' must be followed.

### stry weed control

dup ProVantage 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 GUIDANCE
Forestry: - Pre-planting	Arable land, planting, replanting, & grassland areas	Arable weeds Grassland weeds	3.0 3.75	Hydraulic sprayers: 80-250 L/ha or rotary atomizers: 40 L/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	Clean-up around trees with knapsack applications.	Annual/perennial grasses and broad-leaves	3.0	Knapsack sprayers: 200-250 L/ha or	It is ESSENTIAL to use a TREE GUARD for all applications made in the growing season.
conifers & broad-leaved trees		Woody weeds: Bracken/Beech Brush/Brambles Sycamore/Oak Hazel/Willow/Ash	2.25	Weed wiper mini: 1 part ROUNDUP PROVANTAGE to 3 parts water	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 (bu after new growth of crop has hardened).
		Heather (peat soils) 3.0 Heather (mineral soils) 4.5			
		Rhododendron (*)	7.5	250 L/ha	Cut back and treat regrowth when at least 1 metre in height throughout the entire coppice.

(\*) For improved control of Rhododendron add Mixture B (ADJ AO570) at a concentration of 2% final water volume to 6.0 L/ha of Roundup ProVantage. Application using the weed wiper is not suitable.

AREA OF USE	TARGET WEEDS/USAGE	WEED INFESTATION	APPLICATION RATE L/HA.	WATER VOLUME	APPLICATION GUIDANCE
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 All levels of all species	1.0 1.5 1.5 1.5 2.25	Hydraulic sprayers: 200-250 L/ha or Hand-held equipment - see 'Mixing and Spraying' section	Species safe to spray when fully dormant and leader growth has hardened: Corsican, Lodgepole and Scots Pines, 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.
Forestry: - Stump application for chemical thinning	Deciduous trees  Coniferous trees	All species All species	7.5% solution of Roundup ProVantage in water 15% solution of Roundup ProVantage in water		Apply the solution to saturate the rim of the newly cut surface, with a suitable 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	-	1.5 ml neat Roundup ProVantage per cut per 10 cm diameter (or less) tree		Use a hatchet to cut one notch in trees up to 10 cm diameter and apply 1.5 ml of the solution to each cut. Use two or three notches in trees over 10 cm diameter. Do not treat in the period of active sap

flow in the spring/early summer.

# Crop specific information

	MAXIMUM INDIVIDUAL DOSE	MAXIMUM TOTAL DOSE		AMENITY, INDUST
CROPS OR SITUATIONS	(kg product per hectare)	(kg product / hectare / crop)	LATEST TIME OF APPLICATION	Exclusion Times People, pets and wildlif
Permanent grassland (destruction), rotational grassland (destruction).	4.5	4.5 L/ha/year	5 days before harvest, grazing or drilling	where the spray is still vother foliage. Once the
Apple and pear orchards.	3.75	3.75 L/ha/year	After harvest (post leaf-fall)	Area of Use
			but before green cluster stage	Roundup ProVantage is re weeds in non-crop areas
Cherry, plum and damson orchards.	3.75	3.75 L/ha/year	After harvest (post leaf-fall) but before white bud stage	weed control. Roundup P orchards and for spot tree growth on hard surfaces
All edible and non-edible crops (destruction before sowing/planting)	3.75	3.75 L/ha/year	-	Application Rate
Natural surfaces not intended to bear vegetation, permeable surfaces overlaying soil, hard surfaces	3.75 litres/hectare	-	-	1.0 to 7.5 litres/ha – refe
Enclosed waters, open waters, land immediately adjacent to aquatic area.	4.5 litres/hectare	-	-	IMPORTANT: This informat of the Product Label. All ins
Forestry: Weed control	7.5 litres/hectare	-	-	section must be read caref safe and successful use of
Stump application	150 ml/litre of water (15% solution of product in water)	-	-	Warnings EXTREME CARE SHOULD
Chemical thinning (by injection)	1.5 ml per 10 cm diameter (or less)	-	-	SPRAY DRIFT AS THIS CA NEIGHBOURING CROPS (
Amenity vegetation	of tree 3.75 litres/hectare	-	-	DO NOT MIX, STORE OR A ProVantage IN GALVANISE CONTAINERS OR SPRAY

## OTHER SPECIFIC RESTRICTIONS:

Weed wipers may be used in any recommended Jsers must consult the appropriate water regulatory oody (Environment Agency/Scottish Environmental Protection Agency/Natural Resources Wales) before using the product near water and must obtain their agreement before using this product to control aquatic Weed wiper Mini weeds. The maximum concentration of active substance Other Winers in treated water should not exceed 0.2 ppm. When applying through rotary atomisers, the spray droplet spectra produced must be of a minimum Volume Median Diameter (VMD) of 200 microns.

crop where the wiper or chemical does not touch the When using weed wipers, the maximum concentrations used must not exceed the following: 1:3 dilution with water 1:2 dilution with water For stump application the maximum concentration must not exceed 150 ml product per 1.0 litre water.

# AMENITY, INDUSTRIAL AND GENERAL WEED CONTROL

People, pets and wildlife need not be kept out of treated areas. It is best not to walk in areas where the spray is still wet as transfer to other vegetation may lead to unwanted damage to other foliage. Once the spray is dry this cannot occur.

# Area of Use

Roundup ProVantage is recommended for control of annual and perennial grasses and broad-leaved weeds in non-crop areas, for cleaning up weedy ground prior to planting or sowing and for aquatic weed control. Roundup ProVantage may also be used as a directed spray in ornamental plantings. orchards and for spot treating in grassland. Roundup ProVantage must be targeted only at weed growth on hard surfaces such as roadsides and paths, (see recommendation table for details).

# Application Rate

1.0 to 7.5 litres/ha - refer to Recommendation Tables pages 2-9

## **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.

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

OO NOT MIX. STORE OR APPLY ROUNDUP ProVantage 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.

A period without rain of at least 6 hours and preferably 24 hours must follow application of Roundup ProVantage.

Do not spray onto weeds which are naturally senescent, or where growth is impaired by drought, high temperature, 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 can severely damage or destroy them

Do not tank-mix Roundup ProVantage with adjuvants, pesticides or fertilisers, except as specified in the Compatibility section.

- 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
  - PERENNIAL BROAD-LEAVED WEEDS are most

  - BRACKEN should be treated after frond tips are unfurled, but pre-senescence.
  - This product will not give an acceptable level of

# Keep stock out of treated areas for at least 5

MUST BE REMOVED BEFORE REGRAZING OR Where Ragwort is present users should consult the

Code of Practice on How to Prevent the Spread of Ragwort, Ragwort plants sprayed with this herbicide are more palatable and contain higher levels of toxins. Animals should be excluded from treated areas until any ragwort has completely recovered or died and there is no visible sign of the

After application, large concentrations of decaying

dispersed or buried by thorough cultivation before

and pesticides should be delayed until 5 days after

foliage, stolons, roots or rhizomes should be

Applications of lime, fertiliser, farmyard manure

application of Roundup ProVantage.

Weeds controlled Upon soil adsorption the herbicidal properties of Roundup ProVantage herbicide controls most Roundup ProVantage are lost permitting the drilling Avoid high water volumes (>300 L/ha) which may emerged grasses and broadleaved weeds. It is lead to run-off from the treated vegetation, resulting of crops 48 hrs after application. Planting of trees. important that all weeds are at the correct growth stage when treated, otherwise some re-growth

may occur and this will need re-treatment.

and they have ACTIVELY GROWING green leaves.

# 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

10-15 cm of new growth).

set-aside, annual grasses are best treated at full ear emergence, or before stem elongation. Application during the 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 Roundup ProVantage can also be applied using re-treatment. rotary atomisers and weed wipers. See 'Mixing and

- Areas of Use are given in the Recommendation

Roundup ProVantage herbicide controls emerged days, TREATED POISONOUS PLANT SPECIES and floating aquatic weeds including Common Reed, Reed Sweet-grass, Reed Canary-grass and conditions prior to application.

> Treat when the weeds are actively growing with full emergence of green leaf, at flowering and before dieback. Best results are obtained from applications (20–35 psi). in the periods from mid-July to mid-August on Water-lilies and mid- August to mid-September on

treatment will be necessary.

# dead weed. Do not include treated Ragwort in hay (Subsequent land use following application of

Roundup ProVantage) shrubs, etc. may take place 7 days after application. in reduced control. Low drift nozzles such as air induction and pre-orifice types producing a

Apply Roundup ProVantage herbicide once grasses and broad-leaved weeds have emerged

For more details of suitable nozzles see 'Mixing and spraying' section.

PERENNIAL GRASSES must have full emergence HYDRAULIC SPRAYERS

(200 L/HA)\* Boom sprayer 3.75 litres 3.75 litres in 200 litres in 100 litres water covers | water covers 1 ha 1 ha

VOLUME

# OTHER SPECIES - recommendations for specific Mixing and spraying

Roundup ProVantage mixes readily with water and can be applied in spray volumes ranging from 10-400 L/ha using tractor mounted, knapsack, rotary control of Horsetails (Equisetum arvense)-repeat atomisers and hand-held sprayers. Specialised application equipment such as weed wipers, stem injection and spot gun applicators may be used

Correctly calibrate all sprayers under field or use

# a) Tractor mounted and powered hydraulic sprayers These should be capable of applying accurately

spray volume of 10-40 L/ha. 80-400 L/ha within a pressure range of 1.5-2.5 bars

Half fill the spray tank with clean water, start gentle all uses. Roundup ProVantage may be applied neat through

the required level. To avoid foaming do not use top specialised ULV applicators which have drift through conventional rotary atomisers.

Application Guidance Use the following guidance when spraying at a rate used to minimise the risk of drift. of 3.75 L/ha.

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.

Recommended delivery range is 80-300 L/ha. Half fill the spray tank with clean water, add the correct amount of Roundup ProVantage and top up with water.

sprayers fitted with a Hypro AN 1.2 or similar nozzle deliver approximately 200 L/ha spray volume (or 10 L per 500 m2). To apply 3.75 L/ha of Roundup ProVantage, therefore, use a 1.9% solution, i.e. 190 ml Roundup ProVantage made up to 10 litres. Similarly, knapsack sprayers fitted with low volume

to apply a swath of 1 metre width, most knapsack

nozzles such as Hypro DT 1.5 typically deliver

suitable for use in amenity, industrial, forestry,

orchards and aquatic areas situations to apply a

For ropewick applicators use a concentration of 1

part Roundup ProVantage to 3 parts of water and

of this label.

add a water-soluble dve if required. Care should be

approximately 100 L/ha spray volume. To apply 3.75 L/ha Roundup ProVantage in this case use 3.75% c) Rotary Atomisers Hand-held machines can be used to apply a spray where indicated. volume of 10-40 L/ha, e.g. Herbi and Herbaflex.

SPRAYING WITH 3.75 L/HA

STANDARD LOW VOLUME

188 ml in 375 ml in

10 litres water 10 litres water

covers 500 m<sup>2</sup> | covers 1000 m<sup>2</sup>

(100 L/HA)

agitation, and then add the correct amount of Roundup ProVantage. Top up the tank with water to

tank agitation. Use of a defoamer may be necessary. Medium Volume application (150-300 L/ha)

medium or coarse spray (BCPC definition) should be

# b) Knapsack Sprayers

When used at a walking speed of 1 metre/second

# g) Spot Gun Applicators

cone TG-3 or TG-5 nozzle.

	AMOUNT OF ROUNDUP PROVANTAGE (ML) PER 5 LITRES SPRAY SOLUTION FOR TARGETED DOSAGES OF:						
ETER RES)	2.25 L/HA	3.0 L/HA	3.75 L/HA	P to p			
3	16	21	27	gı P			
6	64	85	107	m			

Tractor-mounted rotary atomiser boom sprayers are When used in paddocks keep livestock out of treated area until treated Ragwort or other poisonous weeds have either been removed or died down completely.

# Boat mounted sprayers

When conventional rotary atomisers are used to apply Roundup ProVantage ensure that the droplet diameter falls within the range 200-300 microns for

# reducing systems or at a spray volume of 10-40 L/ha Compatibility

Roundup ProVantage is physically compatible with Protection Products" of January 2006, should be some other pesticides. For up to date information on adhered to compatible products contact Monsanto UK Limited Symptoms on the weeds (Telephone: 01223 226500 or visit Symptoms of treatment are generally first seen 7 https://cropscience.bayer.co.uk/

Roundup ProVantage is compatible with Mixture taken to avoid dripping onto wanted vegetation. B NF (ADJ 0570). Where conventional hydraulic For new generation weed wipers, use 1part Roundup sprayers are being used Mixture B NF may be added ProVantage to 10 or 20 parts of water or as directed to the spray tank solution, at a rate of 2% of the by manufacturer's instructions. A list of machines is final water volume, for all pre-plant and post-plant included in the Company Advisory section at the end directed sprays only.

# f) Stem injection

Knotweed and Giant Hogweed.

Apply 4 ml of spray to target weed, using a narrow

to contaminate groundwater.

Roundup ProVantage is a glyphosate formulation

which, having no hazard classification, offers a

high standard of operator safety. To maximise

operator, consumer and environment, the label

publication "Code of Practice for the Using Plant

14 days, or longer, if growth is slow after spraying.

Leaf symptoms take the form of a reddening

broadleaved weeds. Reaction of nettle is slow.

the intrinsic safety of Roundup ProVantage to

recommendations and the DEFRA/HSC/NAW

(ML) PER 5 L	ROUNDUP PR LITRES SPRAY ED DOSAGES	General I Roundup Pro formulation	
2.25 L/HA	3.0 L/HA	3.75 L/HA	ProVantage to undergro providing co
16	21	27	grasses and

For use in aquatic situations. Prepare sprayer as for knapsack sprayers (Section b above), Calibrate and spray at the lowest speed possible.

Always apply against the direction of any current.

CROPS, GRASSLAND OR AQUATIC WEEDS. For cut stump treatment an Enso attachment to rotary saws may be used. This technique is specific Do not tank-mix Roundup ProVantage when using to scrub clearance in forestry. A suitable water rotary atomiser sprayers. soluble dye may be used. N.B. Maintain continuous agitation when using

Use a hatchet to cut one notch in trees up to 10 cm For knapsack sprayers: mix thoroughly and use diameter and two to three notches in trees above immediately when using Roundup ProVantage in 10 cm diameter. Use 1.5 ml of undiluted Roundup tank mixture. ProVantage per notch. Specialist stem injection Always consult manufacturers' recommendations equipment can be used to inject 1.5 mls Roundup before use ProVantage into hollow stems such as Japanese

### COMPANY ADVISORY INFORMATION A covering of dew may reduce efficacy where run-off

This section is not part of the Product Label under the Plant Protection Products Regulations 1995 and Reduced control is likely where weed growth is provides additional advice on the product. impaired by natural senescence, drought, high

DO NOT APPLY WITH MIXTURE B NF TO EDIBLE

Roundup ProVantage in a tank-mixture.

### Information roVantage herbicide is an advanced

Weed resistance strategy containing glyphosate. Roundup e is taken up by foliage and translocated Glyphosate, the active ingredient in Roundup ound roots, rhizomes and stolons, ProVantage is a Group G herbicide based on the control of both annual and perennial mode of action classification system of the Herbicide nd broad-leaved weeds. Roundup Resistance Action Committee oVantage is rapidly adsorbed onto particulate Under Best Practice there is a low risk for the matter in soils and water and is quickly degraded development of weed resistance to Roundup by the micro-organisms present in soil and aquatic ProVantage. There are no known cases of weed bottom sediments. Until degraded, the active resistance to glyphosate in UK. ingredient in Roundup ProVantage, glyphosate, is

practically immobile in soils and is, therefore, unlikely Strains of some annual weeds have developed resistance to glyphosate in some parts of the world leading to poor control. A strategy for

For aquatic weed control, on reeds and grasses

leaf symptoms usually appear within 14-21 days

desiccation usually occurs 30-40 days after

occur in the season following spraying.

See Directions for Use (Restrictions).

Effects of weather

symptoms will be delayed.

of spraying in the early autumn. Complete foliage

spraying. At this stage the reeds can be cut and

removed. During cold conditions leaf symptoms may

Roundup ProVantage will remain efficacious at low

but not freezing temperatures however the onset of

temperature, a covering of dust, flooding or severe/

prolonged frost at, or immediately after application.

not appear before natural dieback but no growth will

preventing and managing such resistance should be adopted. This should include integrating herbicides with a programme of cultural control measures and / or active ingredients with a different mode of action. Users are encouraged to implement a weed

resistance strategy based on (a) Good Agricultural Practices and (b) Good Plant Protection Practices Following label recommendations on rates and

# The adoption of Integrated Weed Management

- Minimising the risk of spreading weed infestations
- then yellowing of the foliage and are first seen The implementation of good spraying practice to on the grass weeds but take longer to appear on 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 (Telephone: 00 800 1214 9451).

# 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.

### New generation weedwipers

- Logic Contact 2000 Carier Rollmaster
- Allman Ecowipe · Rotowiper (UK) Ltd
- C-Dax™ Eliminator Weedswiper<sup>TM</sup>

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.

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.

# rademark References

Roundup ProVantage ® is a Registered Trademark of Monsanto Technology LLC.

Monsanto® and the Vine symbol are registered trademarks of Monsanto Technology LLC.

All other brand names referred to are trademarks of other manufacturers in which proprietary rights may

Monsanto does not warrant that the purchase or use

of equipment mentioned in this document will not

infringe any patent or trademark registration.

# Material Safety Data Sheet

specified uses should ensure that the product is used safely and efficaciously for those uses.

# (Telephone: 01223 226500) or can be downloaded from the Monsanto website:

### Following the instructions on this Product Label for the

A Material Safety Data Sheet is available on request

https://cropscience.bayer.co.uk/our-products/amenit

ROUNDUP PROVANTAGE

Wear protective gloves/protective clothing/eye protection/face protection.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

# IMPORTANT INFORMATION:

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL / HORTICULTURAL / INDUSTRIAL / FORESTRY / AQUATIC HERBICIDE

All edible and non-edible crops (destruction, before sowing/planting). Grassland. Natural surfaces not intended to bear vegetation; permeable surfaces overlaving soil; hard surfaces. Enclosed waters, open waters, land immediately adiacent to aquatic areas. Forest,

Maximum individual dose:

Latest time of application: Other specific restrictions:

Operator protection

- \* Engineering control of operator exposure must be used where
- \* WEAR SUITABLE PROTECTIVE GLOVES when handling the
- and the National Assembly for Wales Agriculture Department. concentrate and when handling contaminated surfaces.
- sprayers, hand-held rotary atomisers, weed wiper equipment or spot Order 1978, may apply to the act of applying Roundup ProVantage for gun equipment or when making cut stump treatments OR WHEN the control of weeds growing in or by reservoirs and water courses,
- e.g. rivers, streams, ditches, drains and ponds/lakes discharging into such water courses equipment if a COSHH assessment shows they provide an equal or Storage and disposal
- KEEP AWAY FROM FOOD DRINK AND ANIMAL FEEDINGSTLIFES. KEEP OUT OF REACH OF CHILDREN.

### Environmental protection

Do not contaminate water with the product or its container except when RINSE CONTAINER THOROUGHLY by using an integrated pressure

Recommendations apply to the use of this herbicide for the control of disposed of as non-hazardous waste.



For 24-hour emergency information 230 Cambridge Science Park, Milton Road, Cambridge, CB4 OWB, UK. contact Baver CropScience Ltd. Tel: 00800 1020 3333 Website: https://cropscience.baver.co.uk

Telephone: 01223 226500

Contains 480 g/L glyphosate, present as 588 g/L (43.8% w/w) of the potassium salt of glyphosate. Toxic to aquatic life with long lasting effects.

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

forest nursery (weed control, stump application and chemical thinning). Apples, pears; plums, cherries, damsons. Amenity vegetation.

Full details are given in the Statutory Area Maximum number of treatments:

(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.

Official Code of Practice entitled "Guidelines for the Use of Herbicides or

Weeds in or near Watercourses and Lakes" obtainable from Department

of Environment and Rural Affairs (DEFRA publications 08459 556000).

Department of Agriculture and Rural Development for Northern Ireland

Scottish Executive, Environment and Rural Affairs Department.

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place

at time of filling and dispose of safely. Triple rinsed containers may be

EMPTY CONTAINER COMPLETELY and dispose of safely.

# FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS. SAFETY PRECAUTIONS

- reasonably practicable in addition to the following personal
- protective equipment:
- The Water Act, 1989. The Water Resources Act 1991, the Control of \* WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE Pollution Act 1974. The Northern Ireland Water Resources Act 1992 PROTECTIVE GLOVES AND RUBBER BOOTS when using hand-held and the Control of Pollution and Local Government (Northern Ireland)
- USING STEM INJECTION EQUIPMENT. \* However, engineering controls may replace personal protective
- higher standard of protection. \* WASH HANDS AND EXPOSED SKIN before eating and drinking and after work.

used as directed. Do not clean application equipment near surface water. rinsing device or manually rinse three times. Add washings to sprayer Avoid contamination via drains from farmyards and roads.

weeds growing in or by water and must be read in conjunction with the