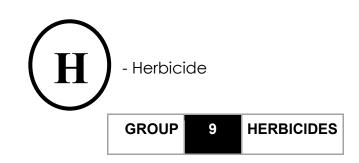
<u> 10Kg Bag Label</u>



ROUNDUP POWERMAX

- High load 720 g/Kg
- High level of efficacy
- Minimum waste
- Superior performance in challenging conditions

A foliar applied herbicide for the control of annual and perennial grass and broad-leaved weeds, before sowing or planting all crops, pre-emergence and pre-harvest in cereals and certain other crops, for destruction of grassland, and set-aside and for use in stubbles, orchards, forestry, and non-crop areas.

> Degraded by micro-organisms/microbes in the soil. For professional use only

(Size and batch number)

This product contains a water-soluble granule (SG) containing 720.0 g/kg glyphosate.

Safety Information

ROUNDUP POWERMAX

UFI: JAW1-W0QC-800Y-WSQY

Contains 720 g/kg glyphosate as glyphosate ammonium salt (790 g/kg)



Toxic to aquatic life with long lasting effects.

Keep only in original container.

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 triple rinsed empty 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.

PCS Number 06047

Bayer CropScience Ltd. 230 Cambridge Science Park Milton Road Cambridge CB4 0WB United Kingdom Bayer CropScience Ltd Bayer Ltd, 1st Floor, The Grange Offices The Grange, Brewery Road, Stillorgan, Co. Dublin A94 H2K7

Freephone: 1800 818534 For 24 hour emergency information contact Bayer CropScience Ltd. Telephone: 00800 1020 3333 Website: <u>www.bayercropscience.ie</u>

SAFETY PRECAUTIONS

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).

PROTECT FROM FROST Store in a cool, dry place.

READ CAREFULLY ALL RECOMMENDATIONS FOR USE GIVEN WITH THIS CONTAINER.

All users must ensure that they have read the recommendations for use and follow its advice before using the product.

WARNING

EXTREME CARE MUST BE TAKEN TO AVOID SPRAY DRIFT ONTO NON-CROP PLANTS OUTSIDE OF THE TARGET AREA. DO NOT MIX, STORE OR APPLY ROUNDUP POWERMAX IN GALVANISED OR UNLINED MILD STEEL CONTAINERS OR SPRAY TANKS. DO NOT leave spray mixtures in tank for long periods and make sure tanks

are WELL VENTED.

GENERAL PROPERTIES

ROUNDUP POWERMAX is a foliar-acting herbicide with broad-spectrum activity. It is translocated, after absorption, from treated green growth to underground roots, rhizomes and stolons, providing control of both annual and perennial weeds.

ROUNDUP POWERMAX is a water-soluble granule formulation with very superior handling characteristics. The free-flowing, dust-free granules dissolve rapidly and completely in water. Because the bulk density of this granular formulation is very stable, ROUNDUP POWERMAX may be

measured both by weight, or volume, as required.

DIRECTIONS FOR USE

Weed Susceptibility

All target weeds must be actively growing at spraying:

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.

BRACKEN should be treated after frond tips have unfurled.

OTHER SPECIES - recommendations for specific areas of use are given in the Recommendation Tables.

Weed resistance strategy

There is risk for the development of weed resistance to ROUNDUP POWERMAX. A strategy for preventing and managing weed resistance should be adopted. This should include integrating herbicides with a programme of cultural control measures. 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 your distributor.

Application

Method of Application

Tractor mounted/trailed horizontal boom sprayer/knapsack.

<u>Spray Quality</u>

A MEDIUM or COARSE quality spray should be applied.. This is best achieved within a pressure range of 1.5 to 2.5 bar.

Filling the Sprayer

Fill the spray tank with water until the re-circulation outlet is submerged and start agitation. Add the appropriate quantity of ROUNDUP POWERMAX. Top up the tank to the level required.

When using a chemical induction bowl or hopper, half fill the bowl with water and add ROUNDUP POWERMAX until within 2 cm (1 inch) of the surface of the water.

With the rinsing system on, open the valve to empty the bowl into the main tank. Repeat until the required amount of ROUNDUP POWERMAX has been introduced.

Sprayer Hygiene

It is essential to thoroughly clean out the entire sprayer system, using a recommended detergent cleaner, between ROUNDUP POWERMAX and other pesticides.

Tank-mixtures

Do not tank-mix ROUNDUP POWERMAX with adjuvants, pesticides or fertilisers, except as advised by manufacturer.

Ensure and maintain continuous agitation when using ROUNDUP POWERMAX in tank-mixture..

Areas of Use, Rates and Timing

See Recommendation Tables.

Hand-held equipment: specific guidance

Wear suitable protective clothing (coveralls), suitable gloves and rubber boots when using hand-held equipment.

Knapsack sprayer applicators (for use in non-crop areas):

When used at a walking speed of 1 metre/second to apply a swath of 1 metre width, most knapsack sprayers deliver 200 I/ha spray volume (or 10 litres per 500m2).

To apply 2.5 kg/ha of ROUNDUP POWERMAX, therefore, use 20 g product for each 2 litres of spray liquid required.

GENERAL CAUTIONS

Applications of lime, fertiliser, farmyard manure and pesticides should be delayed until 5 days after application of ROUNDUP POWERMAX.

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.

Take extreme care when using near or alongside hedgerows.

A rain-free period of at least 6 hours should follow application.

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

USAGE INSTRUCTIONS

Standard sprayer:

1. Fill the spray tank with 2/3 of the required quantity of water.

2. Switch on the agitation and re-circulation.

3. Add the granules "progressively" and when completed add the remaining water. Continue agitation for a minimum of 5 minutes.

(Alternatively, a re-circulation washed sieve on top of the tank may be used if available. First fill the tank with required volume of water and slowly add granules to the sieve as they dissolve).

Sprayers with induction hoppers:

Follow Stages 1 and 2.

3. Half fill the bowl with water.

4. Add product until within 2 cm of the water's surface.

5 + 6. Open the value to empty the bowl into the main tank and close when all the contents have emptied. Do not leave the induction value permanently open or excessive air entrapment will occur. Repeat until the required amount of product has been introduced.

Crop specific information

Crop	Maximum single dose (kg / ha):	Maximum number of applications	Maximum total dose	Latest time of application:
Post-planting & pre- crop emergence: Barley, bulb onion, combining pea, durum wheat, field bean, leek, linseed, mustard, oats, oilseed rape, potato, sugar beet, swede, turnip, vining pea, wheat	0.67	-	0.67 kg/ha/cro p	Pre-emergence of crop
*Pre-harvest - Wheat, barley, Oats, triticale, rye, spelt	2.0	1	2.0 kg/ha	7 days before harvest
*Pre-harvest - Oilseed rape and linseed	2.0	1	2.0 kg/ha	14 days before harvest
*Pre-harvest – Peas (combining)	2.0	1	2.0 kg/ha	7 days before harvest
Asparagus	2.5	-	2.5 Kg/ha/year	Before crop emergence
Stubbles (including destruction of cover crops)	2.0 Or 0.75	-	2.0 Kg/ha/year	2-5 days pre- cultivation/drilling /planting Or Annual weeds. 2 days before drilling or 6 hours before cultivating.
Set-aside/fallow	2.0	-	2.0 Kg/ha/year	2-5 days pre- cultivation/drilling /planting or Annual weeds 24 hours before cultivating

Grassland	2.0	1 per year	2.0 kg/ha	5 days before			
destruction				cutting/ grazing			
Apples, pears	2.5	-	2.5	Post-harvest			
			kg/ha/yea	before green			
			r	cluster stage			
Cherries, plums	2.5	-	2.5	After leaf			
			kg/ha/yea	fall/before			
			r	white-bud			
				stage			
Forestry (Pre and	2.0	-	2.0 kg/ha	-			
post planting)							
Non-cropped areas	2.5	-	2.5	-			
(hard and			kg/ha/yea				
permeable surfaces)			r				
Specific weeds contro	olled: Control						
of a range of an	nual and						
Perennialgrass and	broadleaf						
weeds.							
Other Specific restricti	ons:						
*May only be applied	*May only be applied when crop is > BBCH 87 and grain/seed moisture < 30%						

<u>Booklet</u>

Herbicide

ROUNDUP POWERMAX

First aid inform	ation in the event of accidental exposure or ingestion
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician or poison control center immediately.
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Advice to doctors	This product is not an inhibitor of cholinesterase. For 24-hour emergency information contact: 00800 1020 3333 or for information/to report a poisoning incident contact The National Poisons Information Centre, Beaumont Hospital, Dublin. (01-8092166), retain the label for reference.
Antidote	Treatment with atropine and oximes is not indicated.

RECOMMENDATION TABLES

AREA OF USE	CROP	TARGET WEEDS / USAGE	MAXIMUM NUMBER OF APPLICATIONS	WEED INFESTATION	APPLICATION RATE KG/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE	
	WHEAT, BARLEY, OATS, TRITICALE, RYE, SPELT		1	1-25 shoots/m ² Up to 75 shoots/m ² Over 75 shoots/m ²	1.0 1.5 2.0	100-250 I/ha	*May only be applied when crop is > BBCH 87 and grain/seed moisture < 30%	
	OILSEED RAPE, LINSEED	Common Couch, Black Bent, Creeping Bent Perennial Broad-leaved	Bent,	1	Up to 75 shoots/m ² Over 75 shoots/m ²	1.5 2.0	100-250 I/ha#	Harvest intervals: CEREALS, PEAS, 7+ days OILSEED RAPE 14-21 days LINSEED 14-28 days
	COMBINING PEAS		1	Up to 75 shoots/m ² Over 75 shoots/m ²	1.5 2.0	100-250 I/ha	Use high clearance, narrow wheeled tractors, wide booms and crop dividers.	
PRE-HARVEST ARABLE CROPS*	WHEAT, BARLEY, OATS, TRITICALE, RYE, SPELT		1	All levels/species	2	100-250 l/ha	DO NOT TREAT CROPS GROWN FOR SEED. Consult grain merchant	
	OILSEED RAPE, LINSEED	Weeds and Other Perennial Grasses	1	All levels/species	2	100-250 l/ha#	before treating crops grown on contract or	
	COMBINING PEAS		1	All levels/species	2	100-250 I/ha	intended for malt for distilling.	
	OILSEED RAPE, LINSEED		1	All levels/species	1.5	100-250 l/ha#	Treated straw must not be used as a horticultural	
	COMBINING PEAS	Annual weeds, prior to direct combining	1	All levels/species	1.5	100-250 l/ha	mulch. # Use higher volumes for dense canopies.	
STUBBLES (INCLUDING DESTRUCTION OF COVER CROPS)	BEFORE ALL CROPS EXCEPT	Common Couch, Black Bent, Creeping Bent	-	Up to 75 shoots/m ² Over 75 shoots/m ²	1.5 2.0	100-250 I/ha	Latest time of application: 2 - 5 days pre- cultivation/drilling/planting Do not cultivate	
	ORCHARDS	Annual grasses; volunteer potatoes (autumn only)	-	All levels/species	2.0		immediately before spraying.	

		Volunteer cereals and annual weeds	-	All levels/species	0.75		For PERENNIAL weed control, allow:
		Perennial broad leaved weeds	-	-	2		 - 21+ days growth before spraying in spring - VOLUNTEER POTATOES to
	BEFORE ORCHARD PLANTING	Pre-plant clean-up	-	-	2		 volumeter point locs to make ample top growth 5 days before cultivating or drilling For ANNUAL weed control, allow: 6 hours before cultivating. 48 hours before direct drilling Allow 7 days before planting trees
POST-PLANTING & PRE-CROP EMERGENCE	BARLEY, BULB ONION, COMBINING PEAR, DURUM WHEAT, FIELD BEAN, LEEK, LINSEED, MUTARD, OATS, OILSEED RAPE, POTATO, SUGAR BEET, SWEDE, TURNIP, VINING PEA, WHEAT	Volunteer cereals and annual weeds	-	-	0.67	100-250 I/ha	CAUTION - Ensure that spraying precedes ANY crop emergence.
	ASPARAGUS	Annual weeds Perennial grasses Perennial broad-leaved weeds	-	-	0.75 2.0 2.5		CAUTION - Ensure that spraying precedes ANY new spear emergence
		Common Couch	-	Up to 75 shoots/m ² Over 75 shoots/m ²	1.5 2.0		Spray from mid May to late June. Where topping is not
SET ASIDE / FALLOW	BEFORE or DURING REMOVAL	Perennial broad-leaved weeds and other perennial grasses	-	-	2.0	100-250 I/ha	practised, spray before seed set. Before using on land taken out of production as part of a grant aided scheme,
	FROM PRODUCTION	Annual weeds: - autumn/spring of year 1 only - summer of year 1 and thereafter	-	-	0.75 1.5		ensure compliance with the management rules of that scheme. Do not 'top' or cultivate immediately before application.

	AFTER SHORT ROTATION or LONG TERM REMOVAL FROM PRODUCTION	Annual weeds only and some Perennial weeds	-	-	1.5 2.0	150-250 I/ha	For PERENNIAL weed control, allow: - 21+ days growth before spraying in spring - 5 days before cultivating or drilling. For ANNUAL weed control, allow: - 24 hours before cultivating Do not direct drill after set- aside.
GRASSLAND -DESTRUCTION	GRASS	See Table	1	At these rates control may vary, depending on conditions at the time of application.	2.0	150-250 I/ha	Pre-cut, silage ground: treat 5 days before 2nd or 3rd cut. Consume in normal manner. Post-cut, silage ground and permanent pasture: allow adequate re-growth of grasses and especially broad-leaved weeds prior to application. Grass may be conserved or grazed by cattle, dairy cows or sheep 5+ days after spraying. REMOVE POISONOUS PLANTS BEFORE GRAZING/MOWING.
	AF	PLICATION RATE FOR	GRASSLAND DE	STRUCTION			
	1.5 kg/ha			2.0 kg/ha			
Annual Meadow-grass Common Chickweed Common Mouse-ear Dock seedlings Italian Rye-grass Meadow Fescue Meadow Fostail Rough Meadow-grass Speedwell species Timothy Mayweed species					Broad-lea Cock Comm Comma Creeping Curlea Perennia Plar Soft B	k-bent aved Dock d's-foot ion Bent on Couch ng Bent g Soft-grass d Dock l Rye-grass d Dock l Rye-grass stains Brome hire Fog	

		Perennial grasses, broad-leaved weeds	-	All levels of most species	2.5		Spray AFTER autumn leaf- fall and BEFORE: apples,
ORCHARDS (Top fruit)	APPLE, PEAR, PLUM, CHERRY,	Root suckers	-	-	2.5	200-400 I/ha	pears: green cluster stage 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.
				Annual weeds	0.75		
NON-CROPPED AREAS (HARD AND PERMEABLE SURFACES)	Including industrial sites, roadsides, paths, hard surfaces and along fences and along fences and walls and field edges	VEGETATION MANAGEMENT	-	Perennial grasses Perennial Broad- leaved weeds	2.5	100– 250 I/ha Or Hand-held equipment	Do not use under polythene or glass. 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.
FORESTRY – PRE-PLANTING		Arable land, Planting, Replanting & Grassland areas	-	Arable Weeds	2.0	Hydraulic sprayers 100-250l/ha	All tree species may be planted 7 days or more after treatment.
		Annual/perennial grasses and broadleaved weeds	-	-	2	Knapsack sprayers:	It is ESSENTIAL to use a TREE GUARD for all applications made in the
FORESTRY – POST-PLANTING (DIRECTED) APPLICATION	ALL SPECIES	Woody weeds, including Bracken, Beech, brush, Brambles, Sycamore, Oak, Hazel, Willow and Ash	-	-	1.5	200-250 I/ha	growing season. Treat BRACKEN after frond tips are unfurled but before senescence. Treat HEATHER from late
		Heather (peat soils)	-	-	2		August to end September. Treat WOODY WEEDS from June to August, before leaf senescence, but after new crop growth has hardened.

1	1	1	1		1	1 1
						Treat HEATHER from late
						August
						While moderate control in
						the current season will be
						observed on summer
						treated woody weeds,
						benefits
						of autumn treated weeds
						will only be achieved in the
						following season.
						DO NOT OVERALL SPRAY
						trees being grown for
						ORNAMENTAL PURPOSES,
						including CHRISTMAS
						TREES.
						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.
FORESTRY – POST-PLANTING (OVERALL DORMANT		_	_	1.0		These recommended
SEASON IN CERTAIN CONIFERS)				1.0		application rates refer to
						Forestry
						usage only. Inadequate
				1.5		control may result if used
				1.5		in other
						areas.
						The timing of hardening of
						leader growth varies
						considerably between
					Hydraulic	locations and between
					sprayers	seasons. It may occur as
	Grass weeds				200-250l/ha	early as the end of July or
						be delayed to October or
	Bracken, Beech & Birch				Or	later. To avoid damage to
	Brambles (Only moderate					Lammas growth, sprays
	control can be expected in				Hand-held	should be directed away
	this situation)				equipment	from leaders.

GENERAL INFORMATION Metric Conversion Tables

Rate kg / ha	Area treated by this pack				
	Hectares	Acres			
0.5	20	49.4			
0.75	13.3	32.9			
1.0	10	24.7			
1.5	6.7	16.6			
2.0	5	12.3			
2.5	4	9.9			

Rate kg / ha	Product required to treat 1 acre			
	Lb	kg		
0.5	0.4	0.2		
0.75	0.6	0.3		
1.0	0.9	0.4		
1.5	1.3	0.6		
2.0	1.8	0.8		
2.5	2.2	1.0		

Material Safety Data Sheet

A material safety data sheet for this product is available on request: <u>www.bayercropscience.ie</u> or 1800 818534.

(Acknowledgements and Trademarks etc)