



ROUNDUP® FLEX PLUS

A foliar applied translocated herbicide for the control of annual and perennial grass and broad-leaved weeds.

For use before sowing or planting of all crops, pre-emergence and pre-harvest in cereals and certain other crops, for destruction of grassland, and the control of emerged weeds 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 soluble concentrate containing 500 g/l glyphosate, present as 613 g/l (45.79% w.w.) of the potassium salt of glyphosate.

Contents **e** XX

GROUP	9	HERBICIDES
-------	---	------------

SAFETY INFORMATION

Roundup Flex Plus

A soluble concentrate containing 500 g/l glyphosate, present as 613 g/l (45.79% w.w.) of the potassium salt of glyphosate.

UFI: AK82-704C-D00T-KH2E



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 triple rinsed empty containers which can be disposed of non-hazardous waste.

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

PCS Number 07261

Freephone Tel: 1800 818534

Website: www.bayercropscience.ie

For 24-hour emergency information contact Bayer CropScience Ltd.

Telephone 00800 1020 3333

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.

BOOKLET AND BASE LABEL



ROUNDUP® FLEX PLUS

Herbicide

Authorisation holder:
Bayer CropScience Ltd.
230 Cambridge Science Park
Milton Road
Cambridge
CB4 0WB
United Kingdom

Marketing company:
Bayer CropScience Ltd
Bayer Ltd,
1st Floor, The Grange Offices
The Grange,
Brewery Road,
Stillorgan,
Co. Dublin
A94 H2K7

Freephone Tel: 1800 818534

Website: www.bayercropscience.ie

**For 24-hour emergency information contact Bayer CropScience Ltd.
Telephone 00800 1020 3333**

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).

Crop	DIRECTIONS FOR USE			
	Maximum single dose l/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,	0.96	-	0.96 L/ha/crop	Pre-emergence of crop

potato, sugar beet, swede, turnip, vining pea, wheat				
*Pre-harvest - wheat, barley, oats, triticale, rye, spelt	2.9	1	2.9 L/ha	7 days before harvest
*Pre-harvest -oilseed rape and linseed	2.9	1	2.9 L/ha	14 days before harvest
*Pre-harvest – Peas (combining)	2.9	1	2.9 L/ha/crop	7 days before harvest
Stubbles (including destruction of cover crops)	2.9	-	2.9 L/ha/year	2-5 days pre- cultivation/drilling/planting
Set-aside/fallow	2.9	-	2.9 L/ha/year	2-5 days pre- cultivation/drilling/planting
Grassland destruction	2.9	1 per year	2.9 L/ha	5 days before cutting/ grazing
Apples, pears	3.6	-	3.6 l/ha/year	Post-harvest before green cluster stage
Cherries, plums	3.6	-	3.6 l/ha/year	After leaf fall/before white-bud stage
Non-cropped areas (hard and permeable surfaces)	3.6	-	3.6 l/ha/year	-
Forestry	2.9	-	2.9 L/ha	
Specific weeds controlled: Control of a range of annual and Perennial grass and broadleaf weeds.	Other Specific restrictions: *May only be applied when crop is > BBCH 87 and grain/seed moisture < 30%			

Warnings

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 FLEX PLUS 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.

General Information

ROUNDUP FLEX PLUS herbicide is an advanced formulation containing glyphosate. ROUNDUP FLEX PLUS is a non-selective 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.

General cautions

A period without rain of at least 6 hours and preferably 24 hours must follow application of ROUNDUP FLEX PLUS.

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 can severely damage or destroy them.

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.

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

Keep stock out of treated areas for at least 5 days. TREATED POISONOUS PLANT SPECIES MUST BE REMOVED BEFORE REGRAZING OR CONSERVING.

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 dead weed. Do not include treated Ragwort in hay or silage crops.

Weeds controlled

ROUNDUP FLEX PLUS 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. DO NOT treat surviving weeds directly with another dose of glyphosate; instead destroy using other techniques e.g. destructive cultivation.

Apply ROUNDUP FLEX PLUS herbicide once grasses and broad-leaved weeds have emerged 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 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 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.

Note: The effects of treatment on the long-term control of perennial broad-leaved weeds have not been investigated.

Effects of weather

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

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

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

Weed resistance strategy

There is risk for the development of weed resistance to ROUNDUP GOLD 450.

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.

#

A1 February 2024
RECOMMENDATION TABLES

AREA OF USE	CROP	TARGET WEEDS / USAGE	MAXIMUM NUMBER OF APPLICATIONS	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
PRE-HARVEST ARABLE CROPS*	WHEAT, BARLEY, OATS, TRITICALE, RYE, SPELT	Common Couch, Black Bent, Creeping Bent	1	1-25 shoots/m ² Up to 75 shoots/m ² Over 75 shoots/m ²	1.44 2.16 2.9	100-250 l/ha	*May only be applied when crop is > BBCH 87 and grain/seed moisture < 30% Harvest intervals: CEREALS, PEAS, 7+ days OILSEED RAPE 14-21 days LINSEED 14-28 days Use high clearance, narrow wheeled tractors, wide booms and crop dividers. DO NOT TREAT CROPS GROWN FOR SEED. Consult grain merchant before treating crops grown on contract or intended for malt for distilling. Treated straw must not be used as a horticultural mulch. # Use higher volumes for dense canopies.
	OILSEED RAPE, LINSEED		1	Up to 75 shoots/m ² Over 75 shoots/m ²	2.16 2.9	100-250 l/ha#	
	COMBINING PEAS		1	Up to 75 shoots/m ² Over 75 shoots/m ²	2.16 2.9	100-250 l/ha	
	WHEAT, BARLEY, OATS, TRITICALE, RYE, SPELT	Perennial Broad-leaved Weeds and Other Perennial Grasses	1	All levels/species	2.9	100-250 l/ha	
	OILSEED RAPE, LINSEED		1	All levels/species	2.9	100-250 l/ha#	
	COMBINING PEAS		1	All levels/species	2.9	100-250 l/ha	
	OILSEED RAPE, LINSEED	Annual weeds, prior to direct combining	1	All levels/species	2.16	100-250 l/ha#	
	COMBINING PEAS		1	All levels/species	2.16	100-250 l/ha	

STUBBLES (INCLUDING DESTRUCTION OF COVER CROPS)	BEFORE ALL CROPS EXCEPT ORCHARDS	Common Couch, Black Bent, Creeping Bent	-	Up to 75 shoots/m ² Over 75 shoots/m ²	2.16 2.9	100-250 l/ha	Latest time of application: 2 - 5 days pre-cultivation/drilling/planting Do not cultivate immediately before spraying. For PERENNIAL weed control, allow: - 21+ days growth before spraying in spring - VOLUNTEER POTATOES to make ample top growth - 5 days before cultivating or drilling For ANNUAL weed control, allow: - 48 hours before cultivating and direct drilling Allow 7 days before planting trees
		Annual grasses; volunteer potatoes (autumn only)	-	All levels/species	2.9		
		Volunteer cereals and annual weeds	-	All levels/species	1.08		
		Perennial broad leaved weeds	-	-	2.9		
	BEFORE ORCHARD PLANTING	Pre-plant clean-up	-	-	2.9		
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	-	-	0.96	100-250 l/ha	CAUTION - Ensure that spraying precedes ANY crop emergence.
SET ASIDE / FALLOW	BEFORE or DURING REMOVAL FROM PRODUCTION	Common Couch	-	Up to 75 shoots/m ² Over 75 shoots/m ²	2.16 2.9	100-250 l/ha	Spray from mid May to late June. Where topping is not practised, spray before seed set. Before using on land taken out of production as part of a grant aided scheme, ensure compliance with the management rules of that scheme. Do not 'top' or cultivate immediately before application. For PERENNIAL weed control, allow: - 21+ days growth before spraying in spring - 5 days before cultivating or drilling. For ANNUAL weed control, allow: - 48 hours before cultivating.
		Perennial broad-leaved weeds and other perennial grasses	-	-	2.9		
		Annual weeds: - autumn/spring of year 1 only - summer of year 1 and thereafter	-	-	1.08 2.16		
	AFTER SHORT ROTATION or LONG TERM REMOVAL FROM PRODUCTION	Annual weeds only and some Perennial weeds	-	-	2.16 2.9	150-250 l/ha	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.	2.9	150-250 l/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.
APPLICATION RATE FOR GRASSLAND DESTRUCTION							
2.16 l/ha				2.9 l/ha			
Annual Meadow-grass Common Chickweed Common Mouse-ear Dock seedlings Italian Rye-grass Meadow Fescue Meadow Foxtail Rough Meadow-grass Speedwell species 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			
ORCHARDS (Top fruit)	APPLE, PEAR, PLUM, CHERRY,	Perennial grasses, broad-leaved weeds	-	All levels of most species	3.6	200-400 l/ha	Spray AFTER autumn leaf-fall and BEFORE: apples, 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.
		Root suckers	-	-	3.6		
NON-CROPPED AREAS (HARD	Including industrial sites, roadsides,	VEGETATION MANAGEMENT	-	Annual weeds	1.08		

AND PERMEABLE SURFACES)	paths, hard surfaces and along fences and walls and field edges			Perennial grasses Perennial Broad-leaved weeds	3.6	100– 250 l/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 gully – do not overspray drains.
FORESTRY – PRE-PLANTING		Arable land, Planting, Replanting & Grassland areas	-	Arable Weeds	2.9	Hydraulic sprayers 100-250l/ha	All tree species may be planted 7 days or more after treatment.
FORESTRY – POST-PLANTING (DIRECTED) APPLICATION	ALL SPECIES	Annual/perennial grasses and broadleaved weeds	-	-	2.9	Knapsack sprayers: 200-250 l/ha	It is ESSENTIAL to use a TREE GUARD for all applications made in the growing season.
		Woody weeds, including Bracken, Beech, brush, Brambles, Sycamore, Oak, Hazel, Willow and Ash	-	-	2.16		Treat BRACKEN after frond tips are unfurled but before senescence.
		Heather (peat soils)	-	-	2.9		Treat HEATHER from late August to end September. Treat WOODY WEEDS from June to August, before leaf senescence, but after new crop growth has hardened. 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.

<p>FORESTRY – POST- PLANTING (OVERALL DORMANT SEASON IN CERTAIN CONIFERS)</p>		<p>Grass weeds</p> <p>Bracken, Beech & Birch Brambles (Only moderate control can be expected in this situation)</p>	<p>-</p>	<p>-</p>	<p>1.08</p> <p>2.16</p>	<p>Hydraulic sprayers 200- 250l/ha</p> <p>Or</p> <p>Hand-held equipment</p>	<p>DO NOT OVERALL SPRAY trees being grown for ORNAMENTAL PURPOSES, including CHRISTMAS TREES.</p> <p>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.</p> <p>These recommended application rates refer to Forestry usage only. Inadequate control may result if used in other areas.</p> <p>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.</p>
---	--	---	----------	----------	-------------------------	---	--

Mixing and spraying

ROUNDUP FLEX PLUS mixes readily with water and can be applied in spray volumes ranging from 100-400 l/ha using tractor mounted, knapsack and hand-held sprayers.

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

a) Tractor mounted and powered hydraulic sprayers

These should be capable of applying accurately 100-400 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 ROUNDUP FLEX PLUS. 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.

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 100 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) Knapsack sprayers

Recommended delivery range is 100 - 300 l/ha. Half fill the spray tank with clean water, add the correct amount of ROUNDUP FLEX PLUS and top up with water.

When used at a walking speed of 1 metre/second to apply a swath of 1 metre width, most knapsack sprayers fitted with a Hypro AN 2.0 or similar nozzle deliver approximately 200 l/ha spray volume (or 10 l per 500 m²). To apply 3.0 l/ha of ROUNDUP FLEX PLUS, therefore, use a 1.5% solution, i.e. 150ml ROUNDUP FLEX PLUS made up to 10 litres. Similarly, knapsack sprayers fitted with low volume nozzles such as Hypro DT 1.5 typically deliver approximately 100 l/ha spray volume. To apply 3.0 l/ha ROUNDUP FLEX PLUS in this case use 3.0% solution.

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.

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.

Caution

1. Always wash out the sprayer thoroughly before and after use.
2. Do not mix or apply in galvanised or mild steel containers, such as old steel drums or galvanised watering cans.

Compatibility

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

For hydraulic sprayers: maintain continuous agitation when using ROUNDUP FLEX PLUS in tank mixture.

For knapsack sprayers: mix thoroughly and use immediately when using ROUNDUP FLEX PLUS in tank mixture.

Metric conversion tables for ROUNDUP Flex Plus (15 litre pack)

Rate l/ha	Area treated by the pack	
	Hectares	Acres
0.96	15.63	38.6
2.9	5.2	12.8
3.6	4.2	10.3

First aid information 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. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Get medical attention if irritation develops and persists.
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 or 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.

Disposal

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.

Material Safety Data Sheet

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

(Acknowledgments & Trademarks)