



## **MAPP Number 21232**

GROUP 9 HERBICIDE

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

For use pre-emergence and pre-harvest in cereals and certain other crops, for destruction of grassland, and use in stubbles and orchards.

Degraded by micro-organisms/microbes in the soil.

A soluble concentrate containing 450 g/L glyphosate, present as 550 g/L (42.2% w/w) of the potassium salt of glyphosate

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

#### **ROUNDUP KLIK**

UFI: 1WS1-P03G-1006-F4ED Contains potassium salt of glyphosate and fatty alkyl ether alkyl amine ethoxylate.





#### Warning

Causes serious eye irritation.

Toxic to aquatic life with long lasting effects.

Wash hands thoroughly after handling.

Wear protective gloves/eye protection/face protection.

Keep only in original container.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

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.

15 Litres

### PROTECT FROM FROST

## Crop specific information #

CROPS OR SITUATIONS	MAXIMUM INDIVIDUAL DOSE (litres of product per hectare)	MAXIMUM TOTAL DOSE (litres of product / hectare / crop)	LATEST TIME OF APPLICATION  7 days before harvest	
Winter wheat, winter barley, winter oats, spring wheat, spring barley, spring oats, durum wheat, combining peas, field beans	3.2	3.2		
Post planting and pre-emergence of listed cereals, oilseed rape, combining peas, vining peas, field bean, potatoes, mustard, linseed, sugar beet, swede, turnip, bulb onion and leek	1.2	1.2	Pre-emergence (ensure spraying precedes ANY crop emergence)	
Oilseed rape and linseed	3.2	3.2	14 days before harvest	
Mustard	3.2	3.2	8 days before harvest.	
All edible crops (stubble), all non-edible crops (stubble)	4.0 or	4.0	5 days before drilling or planting the following crop	
	1.2	3.2	2 days before the drilling or planting of the following crop or 24 hours before cultivating	
All edible and non-edible crops (destruction, before sowing/planting).	4.0	-	-	
Grassland	4.8	4.8	5 days before harvest, grazing or drilling	
Apple and pear orchards	4.0	4.0	After harvest but before green cluster stage	
Cherry, plum and damson orchards	4.0	4.0	After harvest (post leaf fall) but before white bud stage	
Green cover on land not being used for crop production	4.8	4.8	24 hours before cultivating	

#### OTHER SPECIFIC RESTRICTIONS

When applying through rotary atomisers, the spray droplet spectra produced must be of a minimum Volume Median Diameter (VMD) of 200 microns. Weed wipers may be used in any recommended crop where the wiper or chemical does not touch the growing crop.

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

(a) Weed wiper mini

- 1:2.75 dilution with water (b) Other wipers - 1:1.5 dilution with water

#### 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 NEIGHBORING CROPS OR PLANTS. DO NOT MIX, STORE OR APPLY ROUNDUP KLIK IN GALVANISED OR UNLINED STEEL CONTAINERS OR SPRAY TANKS. DO NOT leave spray mixtures in tank for long periods and make sure tanks are WELL VENTED.

#### Restrictions

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

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

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

For the pre-crop emergence uses, ensure that spraying precedes ANY crop emergence.

Keep stock out of treated areas for at least 5 days.

Do not tank mix Roundup Klik with adjuvants, pesticides or fertilisers except as specified under Directions for Use - Compatibility.

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

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

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

- PERENNIAL GRASSES must have full emergence of healthy, green leaf. (Common Couch, for example, becomes susceptible at the onset of tillering and new rhizome growth, which usually occurs when plants have 4-5 leaves. each with 10-15 cm of new growth).
- PERENNIAL BROAD-LEAVED WEEDS are most susceptible around the flowering stage. ANNUAL GRASSES AND BROAD-LEAVED
- WEEDS should have at least 5 cm of leaf. or 2 expanded true leaves, respectively. In set-aside, annual grasses are best treated at full ear emergence, or before stem elongation. Application during stem extension phase of annual grasses e.g. Black-grass and Brome species on set-aside between the end of April and end of May, may result in poor control and require re-treatment.
- OTHER SPECIES recommendations for specific areas of use are given in the Recommendation Tables, pages 2-6.
- 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 Roundup Klik are lost permitting the drilling of crops 48 hrs after application.

## Mixing and spraying

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 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 Roundup Klik. Top up the tank with water to the required level. To avoid foaming do not use top tank agitation. Use of a de-foamer 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 80 L/ha) Low volume application can be achieved by reducing pressure and appropriate nozzle selection. Low drift nozzles which produce a medium spray (BCPC definition) should be used to minimise the risk of drift.

#### b) Knapsack Sprayers

Recommended delivery range is 80-300 L/ha. Half fill the spray tank with clean water, add the correct amount of ROUNDUP KLIK and top up with water, close the top and shake gently to ensure good

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 I per 500 m<sup>2</sup>). To apply 3.2 L/ha of ROUNDUP KLIK, therefore, use a 1.6% solution, i.e. 160 ml ROUNDUP KLIK made up to 10 litres. Similarly, knapsack sprayers fitted with low volume nozzles such as HYPROAN 1.0 typically deliver approximately 100 L/ha spray volume. To apply 3.2 L/ha ROUNDUP KLIK in this case use 3.2%

#### c) Rotary Atomisers

solution.

When rotary atomisers are used to apply Roundup Klik ensure that the droplet diameter falls within the range 200-300 microns for all uses. The water volume must be 40 litres/ha.

#### d) Hand-held Wipers

Roundup Klik may be applied through the weed wiper mini. Use a concentration of 1 part Roundup Klik to 2.75 parts of water and add a scarlet dye if required. Care should be taken to avoid dripping

onto wanted vegetation.

e) Spot Gun Applicators - for treatment of individual

Apply 4 ml of spray to target weed, using a narrow cone TG-3 or TG-5 nozzle.

to contaminate groundwater.

#### Compatibility

Do not tank-mix ROUNDUP KLIK when using rotary

SOLUTION:

L/HA

68

DIAMETER

(METRES)

0.3

0.6

atomiser sprayers.

Do not tank mix Roundup Klik with adjuvants. pesticides or fertilizers except as advised by Bayer Crop Science. For up to date information on compatible products contact Bayer Crop Science.

AMOUNT OF ROUNDUP KLIK

(ML) PER 5 LITRES OF SPRAY

3.2

16 22.4 28

4.0

L/HA | L/HA

88 112

For hydraulic sprayers: maintain continuous agitation when using ROUNDUP KLIK in tank

For knapsack sprayers: mix thoroughly and use immediately when using ROUNDUP KLIK in tank

## 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

Roundup Klik is an advanced glyphosate

formulation that offers a high standard of operator safety. To maximise the intrinsic safety of Roundup Klik 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.

Roundup Klik 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. Roundup Klik is rapidly adsorbed onto particulate matter in soils and water and is quickly

degraded by the micro-organisms present in soil and aquatic bottom sediments. Upon adsorption. the herbicidal properties of Roundup Klik are lost, permitting drilling of crops within 48 hours of application. When used as directed, any water subjected to spray drift of Roundup Klik may be used immediately for irrigation purposes. Until degraded the active ingredient in Roundup Klik, glyphosate, is practically immobile in soils and is, therefore, unlikely

#### 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.

### Exclusion Times

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.

#### Weed resistance strategy There is low risk for the development of weed

resistance to Roundup Klik.

Strains of some annual weeds (e.g. Black-grass, Wild oats and Italian Ryegrass) have developed resistance to certain herbicides which may lead to poor control when using those herbicides. 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 (Bayer Crop Science).

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
- . Minimising the risk of spreading weed infestations The implementation of good spraying practice to

practices

maintain effective weed control Using the correct nozzles to maximise coverage

- Application only under appropriate weather **Trademark References**
- Monitoring performance and reporting any unexpected results to Bayer CropScience Ltd

### **General Cautions**

conditions

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

## Calibration

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

#### **Unused Spray Mixture** Once Roundup Klik 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 efficacv.

## 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

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.

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

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

A full Material Safety Data Sheet is available on

Download from https://cropscience.bayer.co.uk/ or Telephone: 01223 226500.

## Safety Data Sheet

For 24-hour emergency information contact Bayer CropScience Ltd. Telephone: 0330 678 3382 (24 hr) National Poisons Information Centre UK: 0344 892 0111

(medical professionals only)

National Poisons Information Centre Dublin: +353 1 809 2166

A soluble concentrate containing 450 g/L glyphosate. present as 550 g/L (42.2% w/w) of the potassium salt of glyphosate

IMPORTANT INFORMATION: FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Wheat, (including Durum wheat), barley, oats, combining peas, vining peas, field beans; Oilseed rape, mustard, linseed:

Potatoes; Sugar beet, swedes, turnips, bulb onions, leeks;

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

Green cover on land not being used for crop production.

Apples, pears; plums, cherries, damsons;

Maximum individual dose:

Full details are given in the Statutory Area Maximum number of treatments: } on the attached leaflet Latest time of application: }

Other specific restrictions: } (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

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS). KEEP OUT OF REACH OF CHILDREN. SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe when using hand-held sprayers, hand-held rotary atomisers, weed wiper equipment or spot gun equipment. RINSE CONTAINER THOROUGHLY by using an integrated However, engineering controls may replace personal pressure-rinsing device or manually rinse three times. protective equipment if a COSHH assessment shows they Add washings to sprayer at time of filling and dispose of provide an equal or higher standard of protection WASH HANDS AND EXPOSED SKIN before eating and non-hazardous waste. drinking and after work.

#### Environmental protection

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

#### Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL **FEEDINGSTUFFS** 

safely. Triple rinsed containers may be disposed of as

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## RECOMMENDATION TABLES

AREA OF USE	TARGET WEEDS/USAGE	CROP OR SITUATIONS	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE			
PRE-HARVEST ARABLE CROPS	Common Couch	WINTER and SPRING WHEAT, DURUM WHEAT, WINTER and SPRING BARLEY and WINTER and SPRING OATS	1-25 shoots/m² Up to 75 shoots/m² Over 75 shoots/m²	1.6 2.4 3.2	80-250 L/ha*	Grain/seed moisture must not exceed 30% at spraying. Harvest intervals: CEREALS, PEAS, BEANS 7+ days			
		OILSEED RAPE MUSTARDS	Up to 75 shoots/m² Over 75 shoots/m²	2.4 3.2	100-250 L/ha#	OILSEED RAPE       14-21 days         LINSEED       14-28 days         MUSTARDS       8-10 days			
		COMBINING PEAS FIELD BEANS	Up to 75 shoots/m² Over 75 shoots/m²	2.4 3.2	80-250 L/ha*	Use high clearance, narrow wheeled tractors, wide booms and crop dividers.  DO NOT TREAT CROPS GROWN FOR SEED.			
		LINSEED	Up to 75 shoots/m² Over 75 shoots/m²	2.4 3.2	80-250 L/ha	Where desiccating crops, check susceptibility of any weeds present. Do not attempt to desiccate Oll.SEED RAPE or MUSTARD crops with significant secondary growth, uneven maturity, disease or stress. Desiccate LINSEED when seeds are light brown and capsules brown; stems/leaves may be yellow/green.  Effects on brewing and baking have not been tested.  Consult grain merchant or processor before use.  # Use higher volumes for dense canopies.  At harvest management rates, ANNUAL NETTLE, VOLUNTEER POTATO ROSEBAY WILLOW HERB and POLYGONUM WEEDS will not be susceptible. WHEAT crops, WHEAT VOLUNTEERS and BROAD-LEAVED WEEDS may require up to 14 days before harvest.  Treated straw must not be used as a horticultural mulch.			
	Perennial broad-leaved weeds and other perennial grasses	WINTER and SPRING WHEAT, DURUM WHEAT, WINTER and SPRING BARLEY and WINTER and SPRING OATS	All levels/species	3.2	80-250 L/ha*				
		OILSEED RAPE MUSTARDS	All levels/species	3.2	200-250 L/ha				
		COMBINING PEAS FIELD BEANS	All levels/species	3.2	80-250 L/ha*				
		LINSEED	All levels/species	3.2	80-250 L/ha	* Rotary atomisers may be used at a water volume of 40 L/ha. Ensure droplet diameter falls within the range 200-300 microns			
	Harvest management	WINTER and SPRING WHEAT, DURUM WHEAT, WINTER and SPRING BARLEY and WINTER and SPRING OATS	Annual grasses, crop stems and leaves	0.8	80-250 L/ha*	aropiet diameter fails within the range 200-300 microns			
			Annual broad-leaved weeds	1.2					
	Crop desiccation and annual weeds, prior to direct combining	OILSEED RAPE MUSTARDS	All levels/species	2.4	100-250 L/ha#				
		LINSEED	All levels/species	2.4	80-250 L/ha				
STUBBLES, PRE-SOWING and PRE-PLANTING	Common Couch	BEFORE ALL CROPS EXCEPT ORCHARDS	Up to 75 shoots/m² Over 75 shoots/m²	2.4 3.2	80-250 L/ha*	Do not cultivate immediately before spraying. For PERENNIAL weed control, allow:			
	Other perennial grasses; volunteer potatoes (autumn only)	_	All levels/species	3.2	-	- 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:			
	Perennial broad-leaved weeds	1	All levels/species	4.0					
	Volunteer cereals and annual weeds		All levels/species	1.2		- 24 hours before cultivating - 48 hours before direct drilling			
	Perennial grasses and broad-leaved weeds	BEFORE ORCHARD PLANTING	Arable weeds Pasture weeds	3.2 4.0	80-250 L/ha*	Allow 7 days before planting trees  * Rotary atomisers may be used at a water volume of 40 L/ha. Ensure droplet diameter falls within the range 200-300 microns.			

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AREA OF USE	TARGET WEEDS/USAGE	CROP/SITUATION	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
POST SOWING/ PLANTING, PRE- EMERGENCE OF THE CROP	Volunteer cereals and annual weeds	LISTED CEREALS OILSEED RAPE, POTATOES, MUSTARD, LINSEED, PEAS, FIELD BEANS, SUGAR BEET, SWEDE, TURNIP, ONION & LEEK	All levels/species	1.2	80-250 L/ha*	CAUTION - Ensure that spraying precedes ANY crop emergence.  * Rotary atomisers may be used at a water volume of 40 L/ha. Ensure droplet diameter falls within the range 200-300 microns.
ALL EDIBLE AND	Vegetation management	-	Annual weeds	1.2	80-250 L/ha*	Do not use under polythene or glass.
NON-EDIBLE CROPS (DESTRUCTION,			Perennial grasses	3.2	or hand-held	Do not use in or alongside hedgerows
BEFORE SOWING/ PLANTING			Perennial broad-leaved weeds	4.0	equipment (p. 10)	*Rotary atomisers may be used at a water volume of 40 L/ha. Ensure droplet diameter falls within the range 200-300 microns
GREEN COVER ON	Common Couch	BEFORE or DURING REMOVAL FROM PRODUCTION	Up to 75 shoots/m²	2.4	80-250 L/ha*	Before using on land taken out of production as part of a grant aided
LAND NOT BEING USED FOR CROP			Over 75 shoots/m <sup>2</sup>	3.2	or	scheme, ensure compliance with the management rules of that scheme.
PRODUCTION EG "SET	Perennial broad-leaved		All levels/species	3.2	hand-held equipment or	Do not 'top' or cultivate immediately before application.
ASIDE"	weeds and other perennial grasses					For PERENNIAL weed control, allow:-
		nnual weeds: early autumn/spring			tractor mounted	- 21+ days growth before spraying in spring - 5 days before cultivating or drilling.
	- early autumn/spring		All levels/species	1.2	weed wiper	For ANNUAL weed control, allow:
'	- late spring/ summer		All levels/species	2.4		- 24 hours before cultivating.  Do not direct drill after set aside.
						Not orrect only after set aside.     Rotary atomisers may be used at a water volume of 40 L/ha. Ensure droplet diameter falls within the range 200-300 microns.  Avoid applications during stem elongation as reduced control and
						re-spray is likely.
	Natural regeneration and	AFTER SHORT ROTATION or LONG TERM REMOVAL FROM PRODUCTION	Annual weeds only	2.4	150-250 L/ha	Best control of annual grasses is achieved between full ear
	cover crop destruction		Perennial grasses	3.2	hond hold	emergence and senescence. +Only for weeds listed as per grassland destruction application ra
			Perennial broad-leaved weeds	4.0		table below.
			Perennial broad-leaved weeds as listed below	4.8+		
- DESTRUCTION	Short rotation Ryegrass, longer leys and permanent pasture	onger leys and permanent	Short rotation Ryegrass with annual weeds	2.4	150-250 L/ha	Treat EITHER before grazing/mowing in June-Oct, when growth is 30-60 cm, not dense and lacking mature seeds, OR re-growth after
			Leys 2-4 years old with perennial grass weeds	3.2		grazing/mowing.  Select the application rate which controls/destroys the least susceptible weed and grass species present in the sward.
			Long leys 4-7 years old with perennial broad-leaved weeds	4.0		Grass may be conserved or grazed by cattle, dairy cows or sheep 5+ days after spraying. REMOVE POISONOUS PLANTS BEFORE
			Permanent pasture See Weed Table below.	4.8		GRAZÍNG/MOWING.  If Ragwort is present, the guidance in the 'DIRECTIONS FOR USI
			see weed table below.			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 sprin following autumn application.

APPLICATION RATE FOR GRASSLAND DESTRUCTION									
2.4 L/HA	3.2 L/HA		4.0 L/HA		4.8 L/HA				
Annual Meadow-grass Meadow Fescue Common Chickweed Meadow Foxtail Common Mouse-ear Rough Meadow-grass Dock Seedlings Speedwell species Italian Rye-grass Timothy  Mayweed species	Black-bent Broad-leaved Dock Cock's-foot Common Bent Common Couch Creeping Bent	Creeping Soft-grass Curled Dock Perennial Rye-grass Plantains Soft Brome Yorkshire Fog	Bracken** Common Sorrel Common Nettle Creeping Buttercup* Creeping Thistle Daisy Dwarf Thistle Perennial Sow-thistle	Red Clover Sedges Sheep's Sorrel Soft Rush Spear Thistle Tufted Hairgrass Yarrow	Common Ragwort Hard Rush Heath Rush Jointed Rush <i>Molinia</i> (Purple Moor-grass)	Nardus (Mat grass) Red Fescue White Clover* Yellow Rattle Sheep's Fescue			

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

AREA OF USE	TARGET WEEDS/ USAGE	CROP/SITUATION	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
ORCHARDS	Perennial grasses, broad-leaved weeds	APPLE, PEAR, PLUM, CHERRY, DAMSON	All levels of most species	4.0	Hydraulic sprayers including hand held 200-400 L/ha	Spray AFTER autumn leaf-fall and BEFORE: Apples, pears - green cluster stage Stone fruit - white bud stage
	Root suckers		-	4.0	or Rotary atomisers at 40 L/ha	Treat root suckers in late spring only. Trees must have been established 2+ years. Avoid contact with tree 30+ cm above ground.
IN-CROP (TRACTOR-MOUNTED WEED WIPER APPLICATION)	Bolters, weed beet, other weeds	ARABLE CROPS AND GRASSLAND SET ASIDE	All levels	1:1.5 dilution with water  OR  1:2.75 dilution with water in hot, dry conditions.  For 'new generation' wipers consult the manufacturer for guidance.		Weeds must be 10+ cm taller, and wiper 5+ cm higher, than desired vegetation.  Wipe dense populations twice, in opposite directions. BOLTING BEET requires three applications, 2 weeks apart, from early July to early August.  Contact Monsanto or your distributor for specific recommended weed wiper applicators.  POISONOUS WEEDS and grazing/mowing interval - See GRASSLAND section