

Kernel

A water-soluble non-selective non-residual herbicide for control of most annual and perennial grasses and broad-leaved weeds

Contains 480 g/l of glyphosate present as 640 g/l of the isopropylamine salt

Description: A herbicide for the control of weeds pre-harvest, in stubbles of edible and non-edible crops and pre-cultivated land, grassland destruction, natural surfaces not intended to bear vegetation, permeable surfaces overlying soil, hard surfaces, land prior to cultivation, green cover on land not being used for crop production (set-aside), in orchards, in forestry and in aquatic situations.

Crops: Numerous – see text

Pack size: 20 litres

Packs/pallet: 48 x 20 litres

Introduction: Kernel is absorbed by the foliage and translocated throughout the plant and root systems. Visible symptoms, such as gradual wilting and yellowing, are usually obvious within 3-7 days of application to annual weeds but not for 14-21 days on perennial weeds. Complete browning and root deterioration may require 20-30 days. This process will take longer in cooler weather.

Kernel is inactivated in contact with the soil and is rapidly degraded by micro-organism activity.

Directions for Use:

Timing of

Applications The efficacy of this product is increased if the leaf surface for absorption is large. Common Couch is particularly susceptible at the 4-5 leaf stage when there is 10-15 cms of new growth, when tillering or when rhizome growth is starting.

It is important when treating perennial weeds that there is full emergence of healthy green foliage and active growth at the time of application. Most perennial broad-leaved weeds are particularly susceptible to treatment when they are actively growing and shortly before flowering.

Annual weeds should be growing actively at the time of treatment. Grasses should have at least 5 cms of growth. Broad-leaved weeds should have at least 2 sizeable true leaves.

Under conditions of drought, flooding, frosts or very high temperatures, disease or insect attack or weeds heavily covered with dust, where plant growth is restricted, the efficacy of Kernel will be reduced.

Mixing and

Application: **DO NOT STORE, MIX OR APPLY THIS PRODUCT FROM AN UNLINED OR GALVANISED STEEL TANK.** Do not leave mixtures

in spray tanks over long periods and Ensure that spray tanks are always thoroughly ventilated.

**Product
Degradation
and Following
Crops**

Kernel is inactivated on contact with the soil by binding with soil particles. All crops may be planted or sown at specified intervals after treatment with Kernel. A slight retardation in growth following germination may be seen if seeds are sown by direct drilling into decaying vegetation, roots, rhizomes or stolons.

**Associated
Farming
Practices**

Lime, chemical or natural fertilisers or other pesticides should not be applied at least 5 days before or after treatment with Kernel.

Weather

For best results, a rain-free period of 6 hours and preferably 24 hours is required after application of this product. Treating weeds which are suffering from drought stress may reduce efficacy. Extreme care should be taken to avoid spray drift as this can severely damage or destroy neighbouring crops or plants.

The action of Kernel will be slower in cooler weather. The product should not be used under frosty conditions while weed growth is reduced by natural senescence.

Notes on Use Kernel may be applied to all areas which will be planted with food or feed crops, pre-harvest on wheat and oats intended for milling and on barley intended for brewing. Consult processor before use on crops intended for processing.

To improve efficacy when Kernel is used at rates of 1.5 l/ha or less, a suitable authorised adjuvant should be added to the spray tank.

NEVER apply pre-harvest treatments to crops grown for seed. Barley intended for brewing and crops grown under contract should only be treated following approval of the grain merchant.

ARABLE APPLICATION, stubbles of all crops and pre-cultivated land

Area of use	Target weeds	Extent of weed infestation	Application rate in l/ha	Water volume	Application details

Pre-harvest wheat (including Durum wheat), barley and oats	Common Couch	<25 shoots/m ²	1.50	Hydraulic sprayers 80-250 l/ha or rotary atomisers at 40 l/ha*	Apply when the moisture content of the crop grains is less than 30%, and at least 7 days before harvest. Use high clearance tractors with narrow wheels and crop dividers. NEVER TREAT CROPS WHICH ARE GROWN FOR SEED. Treated straw should not be used for horticultural mulch but may be used for all other applications. Following harvest, incorporate or remove straw as required. Treated area may be used for further cultivation after straw clearance.
		26 to 75 shoots/m ²	2.25		
		>75 shoots/m ² in direct drilled crops	3.0		
	Perennial broad-leaved weeds, and other perennial grasses	All species at all levels of infestation	3.0		

Area of use	Target weeds	Extent of weed infestation	Application rate in l/ha	Water volume	Application details
Pre-harvest in cereals for harvest management to gain harvesting benefits resulting from the reduction of green material in the crop.	Annual grasses, cereal stems and leaves, annual broad-leaved weeds	All species at all levels**	1.125	Hydraulic sprayers 80-250 l/ha or rotary atomisers at 40 l/ha*	Apply when the moisture content of the crop grains is less than 30% , and at least 7 days before harvest and up to 14 days before harvest. Use high clearance tractors with narrow wheels and crop dividers. DO NOT TREAT CROPS WHICH ARE GROWN FOR SEED. Treated straw should not be used for horticultural mulch but may be used for all other applications. Following harvest, incorporate or remove straw as required. Treated area may be used for further cultivation after straw clearance.
Pre-harvest of oilseed rape	Crop desiccation prior to combine harvesting	–	2.25	Use only hydraulic sprayers at 200-250 l/ha	Apply when seeds contain less than 30% moisture. Apply to standing crop 14-21 days before harvest. Use high clearance tractors with narrow wheels and crop dividers. Do not treat crops which are grown for seed. For effective combining do not treat crops with a significant amount of secondary growth nor treat areas of crop with delayed maturing caused from damage by poor drainage or birds. Extreme heat, drought or disease may cause crops to mature unevenly after treatment. After treatment straw should be incorporated or removed. Following this process normal cultivation may resume.
	Common Couch	< 75 shoots/m ²	2.25		
	Annual weeds	All species at all levels			
	Common Couch	>75 shoots/m ²	3.0		
	Perennial broad-leaved weeds, other perennial grasses	All species at all levels			

Pre-harvest use on combining peas and field beans	Common Couch	<75 shoots/m ²	2.25	Hydraulic sprayers 80-250 l/ha or rotary atomisers at 40 l/ha*	Apply at least 7 days before harvest to crop seeds containing less than 30% moisture. DO NOT TREAT CROPS WHICH ARE GROWN FOR SEED. This treatment must not be used for crop desiccation, Use high clearance tractors with narrow wheels and crop dividers
	Common Couch	>75 shoots/m ²	3.0		
	Perennial broad-leaved weeds, other perennial grasses	All species at all levels	3.0		
Pre-harvest use on linseed	Common Couch	< 75 shoots/m ²	2.25	Use only hydraulic sprayers 80-250 l/ha	Apply at least 7 days before harvest to crop seeds containing less than 30% moisture. A period of 28 days may be necessary before combine harvesting. DO NOT TREAT CROPS WHICH ARE GROWN FOR SEED
	Common Couch	>75 shoots/m ²	3.0		
	Perennial broad-leaved weeds, other perennial grasses	All species at all levels	3.0		

* Droplet size should be within 200-300 microns.

** Some weeds such as Annual Nettle, Volunteer Potato, Polygonums and Rose-bay Willow-herb may not be controlled when using low harvest management rates.

A pre-harvest interval of 14 days should be observed during dull weather conditions.

Area of Use	Target weeds	Extent of weed infestation	Application rate in l/ha	Water volume	Application details
Autumn and spring application to stubbles of all crops	Common Couch	<75 shoots/m ²	2.25	Hydraulic sprayers 80-250 l/ha or rotary atomisers at 40 l/ha*.	Drilling, direct drilling or cultivation may take place 5 days after spraying. For best results allow sufficient weed growth before spraying. In spring a period of at least 21 days of weed growth should be allowed prior to
	Common Couch	>75 shoots/m ²	3.0		
	Perennial broad-leaved weeds, other perennial grasses	All species at all levels	3.0		

					treatment. NEVER CULTIVATE BEFORE SPRAYING
Stubbles of all crops and land prior to cultivation	Volunteer cereals, other annual grasses, annual broad-leaved weeds	All species at all levels	1.125	Hydraulic sprayers 80-250 l/ha or rotary atomisers at 40 l/ha*.	Direct drilling or cultivation may take place 5 days after spraying. NEVER CULTIVATE BEFORE SPRAYING

* Droplet size should be within 200-300 microns

***) Some weeds such as Annual Nettle, Volunteer Potato, Polygonums, Rosebay Willowherb may not be controlled when using low harvest management rates.

A pre-harvest interval of 14 days should be observed during dull weather conditions.

GRASSLAND

KERNEL should be applied at a maximum rate of 4.5 l/ha once per year at least 5 days before harvest, grazing or drilling.

Area of use	Target weeds	Extent of weed infestation	Application rate in l/ha	Water volume	Application details
Grassland - destruction and control of associated weeds	Short rotation rye-grass with annual weeds	Application rates should be adjusted to control the least susceptible weeds present. See the following table for dose rates.	2.25	Hydraulic sprayers 150-250 l/ha	Do not apply lime, chemical or natural fertilisers or other pesticides before treatment, or to treated areas within 5 days of Kernel application.
	Perennial grasses in leys of 2-4 years		3.0		
	Perennial broad-leaved weeds in long leys of 4-7 years		3.75		
	Permanent pasture		4.50		

					<p>next crop. Remove poisonous plants before grazing / mowing.</p> <p>Grass and clover may be direct drilled after treatment of 1-2 year leys without mat, with all surface vegetation removed before drilling, 14 days after spraying. Long leys with some mat should be sprayed in the autumn and not direct drilled until the following spring</p>
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DOSE RATES FOR CONTROLLING WEED SPECIES IN GRASSLAND

Application Rate 2.5 l/ha		
Annual Meadow-grass	Creeping Bent	Italian Rye-grass
Smooth Meadow-grass	Yorkshire-fog	Perennial Rye-grass
Application Rate 3.0 l/ha		
Red Fescue	Bracken	Broad-leaved Dock
Creeping Soft-grass	Plantains	Common Couch
Creeping Buttercup	Common Ragwort	Cock's-foot
Application Rate 4.5 l/ha		
Yarrow	Creeping Thistle	Perennial Sow-thistle
Common Nettle		

Strains of blackgrass have developed resistance to many blackgrass herbicides, this may lead to poor control.

NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION, PERMEABLE SURFACES OVERLYING SOIL, HARD SURFACES, LAND PRIOR TO

CULTIVATION

Kernel should be applied at a maximum rate of 4.5 l/ha on land not intended for cropping.

Area of use	Target weeds	Extent of weed infestation	Application rate in l/ha	Water volume	Application details
Natural surfaces not intended to bear vegetation, permeable surfaces overlying soil, hard surfaces, land prior to cultivation	Annual weeds	All species at all levels	1.125	Hydraulic sprayers 80-250 l/ha, Rotary atomisers at 40 l/ha* , or knapsack sprayer (see "Spray Application Techniques and Equipment").	DO NOT USE IN OR ALONG HEDGEROWS. DO NOT USE UNDER GLASS OR POLYTHENE. For use for weed control; <ul style="list-style-type: none"> - in fence lines, around buildings and storage areas, along roads, paths and ditch edges. - for clearance of land prior to sowing; allow 7 days before planting trees shrubs and other crops. - To control re-growth in root crop storage areas.
	Perennial grasses	All species at all levels	3.0		
	Perennial broad-leaved weeds	All species at all levels	4.5		

* Droplet size should be within 200-300 microns

GREEN COVER ON LAND NOT BEING USED FOR PRODUCTION e.g. SET-ASIDE

Before using on land temporarily taken out of production as part of a grant aided scheme, ensure compliance with the management rules of that scheme.

Area of use	Target weeds	Extent of weed infestation	Application rate in l/ha	Water volume	Application details
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Green cover on land not being used for crop production e.g. set-aside	Annual weeds including Volunteer and Wild-oats, Blackgrass Brome	Germinating seedlings	1.125	Hydraulic sprayers 80-250 l/ha, rotary atomisers 40l/ha* or knapsack sprayer (see "Spray Application Techniques and Equipment")	When green cover crop is predominantly grass, refer to the recommendations and application details in the "Grassland" section above.
	Various perennial grasses.	<75 shoots/m ²	2.25		
		> 75 shoots/m ²	3.0		
	Annual and perennial broad-leaved weeds	All species at all levels	3.0		

*Droplet size should be within 200-300 microns.

ORCHARDS

KERNEL should be applied at a maximum rate of 4.5 l/ha once per year.

Area of use	Target weeds	Extent of weed infestation	Application rate in l/ha	Water volume	Application details
Apple, pear, plum, cherry and damson orchards pre-planting	Perennial grasses and broad-leaved weeds in - arable stubbles - pastures	All species at all levels	3.0 3.75	Hydraulic sprayers 200-250 l/ha or rotary atomisers 40 l/ha*.	Allow 7 days after spraying before planting top fruit crops.
Within orchards containing apples, pears, plums, cherries and damsons	Perennial grasses and broad-leaved weeds	All species at all levels	3.75	Hydraulic sprayers 200-400 l/ha (optimum 250 l/ha) or knapsack sprayer (see "Spray Application Techniques and Equipment")	Fruit trees should be established for at least two years before treatment. AVOID CONTACT WITH BRANCHES AND TRUNKS 30 CM ABOVE GROUND LEVEL. Treat after trees have lost their leaves in autumn or for apples and pears in spring before green cluster and before white bud stage for stone fruit.

*Droplet size should be within 200-300 microns

AQUATIC USE

Kernel may be used against aquatic weeds in and along waterways and irrigation ditches at a maximum rate of 4.5 l/ha.

Area of use	Target weeds	Extent of weed infestation	Application rate in l/ha	Water volume	Application details
Aquatic emergent weeds	Common Reed, Soft Rush, Reed Canary-grass, Bulrush, Reed Sweet-grass, Sedges, Watercress, Whorl-grass,	All species at all levels	3.75	Hydraulic sprayers 200- 400 l/ha (optimum 250 l/ha) or rotary atomisers	ONLY APPLY TO EMERGED WEEDS. DO NOT APPLY TO OPEN WATER. Apply using tractor or boat mounted sprayer.

Aquatic floating weeds	Creeping Bent White Water-lily Yellow Water-lily	Both species at all levels	4.5	(Herbi®) 40 l/ha*.	Apply AGAINST the direction of flow if waterway is flowing. The speed of 8 km/h should not be exceeded for tractor mounted sprayers. With boat mounted sprayers use the slowest forward speed possible. When using a boat mounted sprayer it may be necessary to re-treat lilies that have been disturbed by the boat's passage. This product may be used in the presence of fish providing it is used strictly in compliance with label recommendations.
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* Droplet size should be between 200-300 microns

FORESTRY

When conventional hydraulic sprayers are being used the performance of KERNEL can be improved by the addition of a suitable authorised adjuvant to the spray tank, for all pre-plant and post plant uses in forestry only.

Mixture B should not be added when using rotary atomiser sprayers.

KERNEL should be applied post planting in forestry at a maximum rate of 7.5 l/ha.

Area of use	Target weeds	Extent of weed infestation	Application rate l/ha	Water volume	Application details
Forestry					
Pre-planting on arable land and grassland areas	Arable weeds	All species at all levels	3.0	Hydraulic sprayers 200-400 l/ha (optimum 250l/ha) or rotary atomisers 40 l/ha*	All tree species may be planted 7 days after treatment.
	Grassland weeds	All species at all levels	3.75		

Post planting for clean-up around trees with knapsack applicators	Perennial and annual grasses	All species at all levels	3.0	Hydraulic knapsack sprayers, (see Spray Application Techniques and Equipment).	Always use TREE GUARD when treating during the growing season. Bracken should be treated after frond tips are uncurled but pre-senescence. Apply to Heather late August to end of September. Apply to all other woody weeds from June to August before leaf senescence (but after new crop growth has hardened). (+) Rhododendrons may be controlled at 6.0 l/ha if a proper surfactant / adjuvant is added at 2% spray volume e.g. Mixture B. Use at least 200 l/ha of water.	
	Bracken, Beech-Brush, Brambles, Ash, Oak, Willow, Sycamore, Hazel		2.25			3.0 4.5
	Heather - peat soil - mineral soil		7.50 or 6.0 (+)			
	Rhododendron					
Overall spraying post-planting in the dormant season	Grass weeds including Black Bent, Common Couch, Creeping Soft-grass, False Oat-grass, Cock's foot, Purple Moor-grass, Wavy Hair-grass, Yorkshire-fog	All levels - with optimum timing and conditions - under slightly less favourable conditions	2.25 3.0	Hydraulic sprayers 80-250 l/ha or hand-held equipment (see "Spray Application Techniques and Equipment").	DO NOT OVERALL SPRAY trees grown for ornamental purposes (including Christmas trees). When fully dormant and the leader growth has hardened it is safe to over-spray the following species; Corsican, Lodgepole and Scots Pines, Norway and Sitka Spruce, Lawson Cypress, Western Red Cedar.	

					Douglas and Nobel Firs may be sprayed when fully dormant and when leader growth has hardened, but NOT in spring. It is a good idea to test crop safely by spraying a small area before conducting widespread overall treatment in following years. Bracken should be treated after frond tips are uncurled but pre-senescence.
Stump application for chemical thinning	Prevention of coppicing and regrowth from stumps	Deciduous trees Coniferous trees	7.5 % solution of KERNEL in water 15 % solution of KERNEL in water	Clearing saw fitted with Enso attachments or knapsack or sprayer operated at low pressure or spot gun with solid stream nozzle or paint brush	Apply to saturate freshly cut stump. Treat stumps within 1 week of felling from November to March.
Chemical thinning by injection of tree stems	Coniferous and deciduous species		1.5 ml neat KERNEL 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, e.g. using a spot gun. Use 2 or 3 notches in trees over 10 cm diameter. Do not treat in the period of active sap flow in the spring/early summer.

(+) Add surfactant (e.g. Mixture B) at 2% concentration of the tank water volume.

* Droplet size should be within 200-300 microns

SPRAY APPLICATION TECHNIQUES AND EQUIPMENT

1. Hydraulic sprayers mounted on tractors

Use any equipment which can apply at 80-250 litres/ha as a Medium or Coarse spray (as defined by BCPC) with a pressure of 1.5-2.5 bar and 80° or 110° nozzles.

Pre-harvest applications should be made using high clearance tractors with narrow wheels and crop dividers, where the spray boom can be raised to just above the top of the crop.

For most applications, 200-250 litres of water/ha should be used. Spray pressure (typically 1.5-2.5 bar) should be adjusted and related to tractor speed, water volume and nozzle type. However, specific low-volume nozzles may be used with a reduced water volume of 80-120 litres.

When using low volume nozzles, spray pressure and tractor speed should be adjusted. A typical speed range would be 4-9 km/hour. When applying pre-harvest to crops, a low speed to avoid boom bounce is recommended.

All spray equipment should be calibrated before use, particularly if nozzles have been changed. Check at least one nozzle from each side of the boom. Before starting spraying, check that the boom is level, the boom height is correct for the intended application, and all the nozzles on the boom are aligned at the correct angle to the forward direction of the tractor.

2. Rotary Atomisers

Select one of the following:

CDA Boom and CDA Lightweight, Microdrop, Girojet, Dual-Option sprayer, Hydraspin.

Applications should be made using a water volume of 40 l/ha at a speed of 4-9 km/hour and a droplet setting of 200-300 microns (equivalent to the BCPC definitions of 'Medium' or 'Coarse'). The spray droplet spectrum produced by the atomiser must have a minimum Volume Median Diameter (VMD) of 200 microns. The equipment should be correctly calibrated according to the manufacturer's instructions.

3. Directed Application with a Knapsack Sprayer

Knapsack sprayers (e.g. Cooper Pegler Classic / Series 2000) may be used in forestry, orchards, set-aside land, land not intended to bear vegetation and pre-cultivation. Spray volumes normally range from 200-300 litres/ha but may be reduced to 100-150 litres/ha if low volume nozzles have been fitted. Spray quality should be 'Medium' or 'Coarse' as defined by BCPC.

An application rate of 3 litres/ha and a water volume of 200 litres/ha represents a 1.5% concentration of Kernel. A knapsack sprayer with a total capacity of 10 litres thus requires 150 ml of Kernel and 9.85 litres of water. Similarly if the application rate is 4.5 litres/ha, the dilution is 225 ml of Kernel in 9.775 litres of water.

A 10-litre sprayer will cover an area of 500 sq. metres at a 1 metre/second walking pace and a 1-metre wide spray swath.

Spot Gun - Tree injection

The applicator must be fitted with a solid stream nozzle, either a Spraying Systems 0006 or a Delavan LF 6.0. Set the gun to apply 2ml of neat Kernel per cut.

Spot Gun – Stump treatments

The applicator must be fitted with narrow angle cone nozzles (TG3 or TG5) or solid stream nozzle tips (Delavan LF 6.0 or Spraying Systems 0006).

Set the gun to deliver 4 ml per squeeze and select the concentration of Kernel according to usage recommendations. A dose of 4 ml should be applied for each 5 cm diameter of tree stump.

Spray application in or near waterways

Before using KERNEL for control of aquatic weeds in or near waterways read the official recommendations entitled “Guidelines for the use of Herbicides on weeds in or near Watercourses and Lakes”. This document may be obtained from DEFRA, the Scottish Executive Environment and Rural Affairs Department (SEERAD), The Department of Agriculture Northern Ireland and the National Assembly for Wales Agricultural Department (NAWAD).

Consult the appropriate water regulatory body (Environment Agency/Scottish Environment Protection Agency) before applying KERNEL for control of weeds in or near waterways.

Maximum permitted concentration should not exceed 0.2 parts per million, unless otherwise specified by the appropriate water regulatory body (Environment Agency/Scottish Environment Protection Agency).

When using KERNEL following label recommendations, water subjected to spray drift may immediately be used for irrigation.

Filling Spray Tank

Half fill clean spray tank with clean water, add required quantity of product and mix well: add remaining water. Do NOT use mechanical agitators. Place the filling hose below water level to prevent excessive foaming and remove immediately after filling to prevent backsiphoning.

When tank-mixing with other products recommended on the label add the other product before adding KERNEL, then add the remaining water.

Sprayer Hygiene

It is essential to thoroughly clean out spray tanks, pumps and pipelines and nozzle and disc assemblies with a recommended detergent cleaner between applying this product and other pesticides, to avoid contamination from pesticide residues.

SAFETY PRECAUTIONS

a. Operator Protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate or handling contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when using hand-held sprayers,

hand-held rotary atomisers, weed wiper equipment, spot-gun equipment or when making cut stump applications.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS, FACE PROTECTION (FACESHIELD) when carrying out stem injection.

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

WASH ALL PROTECTIVE CLOTHING THOROUGHLY AFTER USE especially the insides of gloves.

WASH CONCENTRATE from skin or eyes immediately

DO NOT BREATHE SPRAY

WASH HAND AND EXPOSED SKIN before meals and after work

b. Environmental Protection

Do not contaminate water with the product or its containers. Do not clean application equipment near surface waters; avoid contamination via drains from farmyards and roads. Users must consult the appropriate water regulatory body (Environment Agency / Scottish Environmental Protection Agency) before using this product near water and must obtain their agreement before using the product to control aquatic weeds.

The maximum concentration of active ingredient in treated water must not exceed 0.2 ppm or such lower concentration as the appropriate regulatory body may require.

c. Storage and Disposal

KEEP IN ORIGINAL CONTAINER tightly closed in a safe place

KEEP OUT OF REACH OF CHILDREN

RINSE CONTAINER THOROUGHLY by using an integrated pressure-rinsing device or by manually rinsing three times. Add washings to the sprayer at the time of filling and dispose of safely.

DO NOT RE-USE CONTAINER for any purpose

IMPORTANT INFORMATION

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

<u>Crops</u>	<u>Maximum dose (l/ha)</u>	<u>Max. no of treatments</u>	<u>Latest time of application</u>
Wheat, barley, oats combining peas, field beans, linseed	3.0	1 per crop	7 days before harvest
Oilseed Rape	3.0	1 per crop	14 days before harvest
All edible crops (stubbles), all non-edible crops (stubbles)	3.0	1 per situation	
Grassland	4.5	1 per year	5 days before harvest, grazing or drilling.
Natural surfaces not intended to bear vegetation, permeable	4.5	n/a	n/a

surfaces overlying soil,
hard surfaces

All edible crops (before planting), all non-edible crops (before planting)	4.5	n/a	
Green cover on land not being used for crop production	3.0	n/a	5 days before harvest, grazing or drilling
Apple and pear (around)	3.75	1 per year	After harvest (post leaf- fall) but before green cluster
Cherry, damson and plum (around)	3.75	1 per year	After harvest (post leaf- fall) but before white bud
Enclosed waters, open waters, land immediately adjacent to aquatic areas	4.5	n/a	n/a
Forest (weed control)	7.5	n/a	n/a
Forest (chemical thinning)	1.5 ml of product per cut per 10 cms diameter		
Forestry (stump)	See 'Other specific restrictions' below		

**Other Specific
Restrictions:**

Rotary Atomisers

When applying through rotary atomisers, the spray droplet spectra produced must be of a minimum Volume Median Diameter (VMD) of 200 microns.

Stump Application

For stump application, the maximum concentration must not exceed 150 ml of product made up to a total volume of 1 litre with water (i.e. a 15% solution).

Aquatic Use

Users must consult the appropriate regulatory body (Environment Agency / Scottish Environmental Protection Agency) and obtain their agreement before using this product to control aquatic weeds.

**Regulatory
Information**

The Chemicals (Hazard Information for Packaging and Supply) Regulations 2009 (CHIP-4) apply to this product.

Hazard Symbol: Dangerous for the Environment N

Risk Phrases:	R50	Very toxic to aquatic organisms
	R53	May cause long-term adverse effects in the aquatic environment
Safety Phrases:	S60	This material and its container must be disposed of as hazardous waste
	S61	Avoid release into the environment – refer to special instructions / safety data sheets.

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

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.

Product Registration Number MAPP 10993

Transport This product is classified as hazardous for transport.

Road Transport:	Environmentally hazardous liquid
U.N. Number:	3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, N.O.S. (contains glyphosate)
U.N. Class:	9
CPL Packing Group:	III
IMDG Code:	None

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Significant changes since last issue: Regulatory Information