

Quarry

MAPP 17789

Batch No. and manufacturing date: see packing

SHAKE WELL BEFORE USE
PROTECT FROM FROST

10 LITRES e



A suspension concentrate containing 400 g/l (36.4% w/w) pendimethalin.
A herbicide for the control of a range of grass and annual broad-leaved weeds in a wide range of crops.

THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.

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.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand held equipment.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows that 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.
WASH HANDS AND EXPOSED SKIN before meals and after work.

AVOID ALL CONTACT BY MOUTH.

DO NOT BREATHE SPRAY.

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).

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirement.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. Aim spray away from water. This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal

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

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely. Keep dry and frostproof in a suitable pesticide store.

DIRECTIONS FOR USE:

Refer to the attached leaflet.

QUARRY

A suspension concentrate containing 400 g/litre pendimethalin.



WARNING

VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

Collect spillage.

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

Contains pendimethalin. May produce an allergic reaction. To avoid risks to human health and the environment, comply with the instructions for use.

IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Crops: Winter wheat, Durum wheat, winter & spring barley, winter rye, triticale, potato, combining pea, sunflower, forage maize, bulb onion (spring and autumn, drilled and transplanted), leek, carrot, parsnip, broccoli/calabrese, Brussels sprout, cabbage, cauliflower, blackcurrant, gooseberry, strawberry, apple, cherry, pear, plum, raspberry, loganberry, *Rubus* Hybrid and blackberry.

Maximum individual dose

Maximum number of treatments

Latest time of application

Full details are given in the information box within the attached leaflet.

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.



Marketing Company

Gemini Agriculture Ltd
71-75 Shelton Street, Covent Garden, London, WC2H 9JQ

Approval holder

BASF plc Crop Protection
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Emergency telephone number

Telephone: +44 (0)845 8698756

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and after work.

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DO NOT BREATHE SPRAY.

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

IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Crops: Winter wheat, Durum wheat, winter & spring barley, winter rye, triticale, potato, combining pea, sunflower, forage maize, bulb onion (spring and autumn, drilled and transplanted), leek, carrot, parsnip, broccoli/calabrese, Brussels sprout, cabbage, cauliflower, blackcurrant, gooseberry, strawberry, apple, cherry, pear, plum, raspberry, loganberry. *Rubus* Hybrid and blackberry.

Maximum individual dose

Maximum number of treatments

Latest time of application

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Emergency telephone number

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This product is approved under the Plant Protection Products Regulations 1995.

IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Crops	Maximum individual dose	Maximum number of treatments	Latest time of application
Winter wheat, Durum wheat, winter barley, winter rye and triticale	3.3 litres product/ha	One per crop	Before leaf sheath erect stage (crop GS 30)
Spring barley, potato, combining pea and sunflower	3.3 litres product/ha	One per crop	Pre-crop emergence
Forage maize	3.75 litres product/ha	One per crop	Before 4th leaf stage
Bulb onion (spring and autumn, drilled and transplanted)	3.3 litres product/ha	One per crop	Pre-crop emergence
Leek	3.3 litres product/ha	One per crop	Pre-crop emergence
Carrot and parsnip	3.3 litres product/ha	One per crop	Pre-crop emergence
Broccoli/calabrese, Brussels sprout, cabbage, cauliflower	3.3 litres product/ha	One per crop	Before transplanting
Blackcurrant, gooseberry	3.3 litres product/ha	One per year	Before bud burst
Strawberry	3.3 litres product/ha	One per year	After flower initiation but before flower truss emergence
Apple, cherry, pear, plum	3.3 litres product/ha	One per year	Before bud burst
Raspberry, loganberry, <i>Rubus</i> hybrid, blackberry	3.3 litres product/ha	One per year	After harvest but before bud burst

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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.

A herbicide for the control of annual-grass and broad-leaved weeds in a wide range of crops.

1. Restrictions/Warnings

1.1 Efficacy

Some soil moisture must be present for QUARRY to be activated. Best results will be obtained if rainfall occurs within seven days of application.

Residual control may be reduced:

- under prolonged dry conditions
- on soils with a high Kd factor
- where organic matter exceeds 6%
- where ash content is high

Do not disturb the soil after QUARRY has been applied as this will result in reduced weed control.

Where cultural techniques which encourage the build up of organic residues in the surface soil are practised for a number of seasons, the effectiveness of residual herbicides may be reduced. In such circumstances periodic ploughing is recommended to disperse residues into a greater volume of soil.

1.2 Soil types

QUARRY may be used on all mineral soil types.

Do not use on soils with more than 10% organic matter.

On stony or gravelly soils there is a risk of crop damage, especially if heavy rain falls soon after application.

Do not use on water logged soil or soils prone to water logging.

1.3 Seedbed preparation

Trash and straw should be incorporated evenly during seedbed preparation.

Seedbed must have a fine, firm tilth.

Consolidate loose or cloddy seedbeds before use.

Following pre-emergence applications, unconsolidated clods (especially if larger than 75mm (3") diameter) may reduce the level of weed control and cause seed to be inadequately covered, which could result in crop damage.

1.4 Crop safety

Extreme care should be taken to avoid damage by drift onto plants outside the target area.

Do not apply QUARRY to crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment.

Seed should be covered with a minimum of 3.2 cm of settled soil (2.5cm for Peas and Sunflowers, 5 cm for Maize).

Shallow drilled crops should be treated post-emergence.

Do not soil incorporate.

Do not spray undersown crops.

Do not undersow crops treated with QUARRY.

QUARRY should not be used on protected crops, or in greenhouses.

1.5 Other Restrictions/Warnings

Before using QUARRY on crops to be processed please consult your processor.

Concentrated or diluted QUARRY will stain. Avoid spillage. Staining is minimised or completely removed if skin and clothes are washed immediately. Hose down machinery immediately after use with a spray tank cleaner.

2. Weed Control

2.1 Cereals

2.1.1 QUARRY applied alone

All weed susceptibility ratings in the table below are for applications made pre-emergence of the weeds.

CROPS	Winter wheat, Durum wheat, winter barley, winter rye & triticale		Spring Barley
PRODUCT	QUARRY		QUARRY
RATE (litres/ha)	3.3	2.5	3.3
GRASS WEED CONTROL			
Annual meadow-grass	S	S	S
Awned canary grass	-	-	-
Black-grass	-	-	-
Rough meadow-grass	MS	MS	MS
Black-bindweed	-	-	-
Black nightshade	-	-	-
Cleavers	-	-	-
Common chickweed	S	S	S
Common fumitory	MS	-	MS
Common orache	S	MS	S
Common poppy	S	MS	S
Corn buttercup	-	-	-
Corn marigold	S	S	S
Fathen	S	MS	S
Field Forget-me-not	S	MS	S
Field pansy	S	MS	S
Hemp-nettle (Day nettle)	S	S	S
Henbit dead-nettle	S	S	S
Knotgrass	S	MS	S
Mayweeds	MS	-	-
Parsley piert	S	S	S
Red dead-nettle	S	S	S
Redshank (early germinating)	-	-	-
Scarlet pimpernel	S	S	S
Shepherd's purse	MS	-	MS
Small nettle	S	-	S
Smooth sowthistle	S	MS	S
Speedwells	S	S	S
Volunteer oilseed rape (1)	S	S	MS

S = Susceptible

MS = Moderately susceptible

(1) = Deep germinating Volunteer Oilseed Rape may not be controlled

- = no data

2.1.2 QUARRY plus Atlantis® WG

CROPS	Winter Wheat	Winter Wheat
PRODUCT	QUARRY	QUARRY
RATE (litres/ha)	3.3	3.3
Tank mix partner	Atlantis WG	Lexus 50DF
RATE (g a.s./ha or g/ha)	400 g/ha + 0.5% biopower	20 g/ha
GRASS WEED CONTROL		
Annual meadow-grass	S up to 1st node (GS 31)	S pre-em, MS up to 2 leaves
Awned canary grass	-	-
Black-grass	S up to 1st node (GS 31)	S up to mid tiller
Loose silky bent	-	S up to 3 leaves
Rough meadow-grass	S up to 1st node (GS 31)	MS pre-em, MS up to 2 leaves
Italian ryegrass	S up to stem elongation (GS 30)	-
Perennial ryegrass (from seed)	S up to 1st node (GS 31)	-
Wild oats (Autumn germinating)	S up to 1st node (GS 31)	-
BROAD-LEAVED WEEDS		
Black-bindweed	-	-
Charlock	S up to 2 leaves	S up to 6 leaves
Cleavers	S up to 2 whorl	MR up to 1 whorl
Common chickweed	S up to 8 leaves	MS up to 6 leaves (2)
Common fumitory	MS pre-em	MS pre-em
Common orache	S pre-em	S pre-em
Common poppy	S up to 8 leaves	MS up to 6 leaves
Corn marigold	S pre-em	S pre-em
Corn spurrey	-	-
Crane's bill	-	S up to 6 leaves
Fathen	S pre-em	S pre-em
Field Forget-me-not	S pre-em	S up to 6 leaves
Field pansy	S up to 2 leaves	S pre-em
Fools parsley	-	-
Groundsel	-	S up to 6 leaves
Hemp-nettle (Day nettle)	S pre-em	S pre-em
Henbit dead-nettle	S pre-em	S up to 6 leaves
Knotgrass	S pre-em	S pre-em
Mayweeds	S up to 8 leaves	S up to 6 leaves
Parsley piert	S pre-em	S pre-em

Red dead-nettle	S pre-em	S pre-em
Redshank (early germinating)	-	-
Scarlet pimpernel	S pre-em	S pre-em
Shepherd's purse	S up to 4 leaves	S up to 6 leaves
Small nettle	S pre-em	S pre-em
Smooth sowthistle	S pre-em	S pre-em
Speedwells	S up to 2 leaves	S pre-em
Volunteer oilseed rape (1)	S pre-em	S up to 6 leaves
Wild radish	-	-

S = Susceptible

MS = Moderately susceptible

(1) = Deep germinating Volunteer Oilseed Rape may not be controlled

(2) = Regrowth of chickweed may occur where residual activity is reduced by excessive rainfall, warm soils and/or very dry soil conditions.

- = no data

2.2 Other crops

All weed susceptibility ratings in the table below are for applications made pre-emergence of the weeds.

CROPS	Combining peas Sunflowers Carrots Parsnips Strawberries Bush fruit Cane fruit Top fruit	Onions Leeks Transplanted Brassicas :- (Brussels sprouts Broccoli Cabbages Calabrese Cauliflowers)	Forage Maize
PRODUCT RATE (litres/ha)	QUARRY 3.3	QUARRY 3.3	QUARRY 3.75
Annual meadow-grass	S	S	S
Black-grass	-	-	-
Rough meadow-grass	MS	MS	MS
Black & white mustard	-	-	-
Black bindweed	-	-	-
Black nightshade	-	-	S#
Charlock	-	-	-
Cleavers (#)	-	-	-
Common chickweed	S	S	S
Common fumitory (#)	*MS	MS	MS
Common orache	S	S	S
Common poppy	S	S	S
Corn buttercup	-	-	-
Corn marigold	S	S	S
Fat-hen	S	S	S

Field forget-me-not	S	S	S
Field pansy	S	S	S
Groundsel	-	-	-
Hemp (day)-nettle	S	S	S
Henbit dead-nettle	S	S	S
Knotgrass	S	S	S
Mayweeds (#)	-	-	-
Parsley piert	S	S	S
Red dead nettle	S	S	S
Redshank (1)	-	-	-
Scarlet pimpernel	S	S	S
Shepherd's purse	*MS	MS	MS
Small nettle	S	S	S
Smooth sowthistle	S	S	S
Speedwells	S	S	S
Volunteer oilseed rape (2)	MS	MS	MS

S = Susceptible

MS = Moderately susceptible

* = Control may be achieved under favourable conditions.

(1) = Early germinating

(2) = Deep germinating Volunteer Oilseed Rape may not be controlled.

= If application is followed by a period of dry conditions, or in situations where very heavy populations occur, a sequence of QUARRY and a product applied post-emergence may be necessary.

- = no data

2.3 Resistance management

Strains of some annual grasses (eg Black-grass, Wild Oats, and Italian Ryegrass) have developed resistance to herbicides, which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. 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.

Populations of Black-grass and Italian ryegrass with high levels of enhanced metabolism resistance will not be fully controlled.

Key elements of the resistance management strategy for QUARRY:

- Always follow WRAG guidelines for preventing and managing herbicide resistant weeds.
- Maximise the use of cultural control measures wherever possible (e.g. crop rotation, ploughing, stale seedbeds, delayed drilling, etc).

- Use tank mixes or sequences of effective herbicides with different modes of action within individual crops, or successive crops.
- For the control of herbicide resistant grassweeds, always use QUARRY in tank mix or sequence with other effective graminicides with different modes of action.
- Apply pre-emergence of weeds wherever possible. If applications are delayed, apply post-emergence products/mixtures to small, actively growing weeds, especially where high levels of resistance are suspected and to reduce the risk of resistance development.
- Monitor fields regularly and investigate the reasons for any poor control.

3. Crop specific information

QUARRY is recommended for use on all varieties of approved crops on any mineral soil except where indicated in the table below.

3.1 Winter wheat including Durum wheat, winter barley

QUARRY applied alone

Product	QUARRY
Rate	2.5 or 3.3 L/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop to before leaf sheath erect stage, (GS 30). Do not apply pre-emergence to crops drilled after 30th November.
Seed depth	Seed must be covered with a MINIMUM of 3.2 cm of settled soil. ONLY treat shallow drilled crops POST-EMERGENCE

3.2 Winter wheat

QUARRY applied in tank mix with Atlantis WG

Product	QUARRY + Atlantis WG + biopower
Rate	3.3 L/ha + 400 g/ha + 0.5%
Water volume	200 litres/hectare.
Timing	Apply post-emergence from 2 leaves on the crop. Apply to young, actively growing weeds. Optimum timing for Black-grass control is 1-3 leaves of the Black-grass.
Notes	For optimum activity, apply when weather conditions promote active weed growth. Do not apply to crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment. Under certain climatic, soil and crop conditions some slight chlorosis and stunting of the crop may occur. If frost is likely, avoid spraying non frost-hardened crops. Avoid spraying during periods of prolonged or severe frost. Control may be reduced if rain falls within 2 hours of application. Thoroughly clean all spray equipment with a proprietary sprayer cleaner immediately after spraying to avoid subsequent damage to crops other than cereals. Consult Atlantis WG product label for information on sequences with other sulfonylurea or 'ALS-inhibiting' herbicides.

QUARRY applied in tank mix with Lexus 50DF

Product	QUARRY + Lexus 50DF
Rate	3.3 L/ha + 20
Water volume	100 to 200 litres/hectare.
Timing	Apply post-emergence from 1 leaf on the crop. Apply to small, actively growing weeds. Optimum timing for Black-grass control is 1-2 leaves of the Black-grass.
Notes	Thoroughly clean all spray equipment with a proprietary sprayer cleaner immediately after spraying to avoid subsequent damage to crops other than cereals. Consult Lexus 50DF product label for information on sequences with other sulfonylurea or 'ALS-inhibiting' herbicides.

3.3 Winter rye, Triticale

Product	QUARRY
Rate	2.5 or 3.3 L/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop to before leaf sheath erect stage, (GS 30). Do not apply pre-emergence to crops drilled after 30th November.
Seed depth	Seed must be covered with a MINIMUM of 3.2 cm of settled soil. ONLY treat shallow drilled crops POST-EMERGENCE.

3.4 Spring barley

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop. Apply QUARRY as soon as possible after drilling and before emergence. Due to risk of dry soils, do not apply QUARRY alone after the end of March (mid April in Scotland) unless rainfall is imminent.
Seed depth	Seed must be covered with a MINIMUM of 3.2 cm of settled soil.

3.5 Combining Peas

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop. Apply QUARRY as soon as possible after sowing and final seedbed preparation. Do not apply if the plumule is less than 13 mm from the soil surface. Due to risk of dry soils, do not apply QUARRY alone after the end of March (mid April in Scotland) unless rainfall is imminent.
Soil types	All mineral soils except gravelly soils.
Seed depth	Seed must be covered with a MINIMUM of 2.5 cm of settled soil.

3.6 Sunflowers

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply as soon as possible after sowing and final seedbed cultivation, before crop and weed emergence.
Seedbed	Consolidate seedbeds after drilling to provide a firm level soil. Seed should be drilled so that after seedbed consolidation it is covered by a minimum of 2.5 cm of settled soil.

3.7 Carrots and Parsnips

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare
Timing	Apply as soon as possible after drilling but before crop and weed emergence.
Notes	If emerged weeds are present after drilling but pre-emergence of the crop, QUARRY may be applied in tank mix with a recommended approved contact herbicide.

3.8 Transplanted Brassicas (Broccoli, Brussels sprouts, Cabbages, Clabrese, Cauliflowers)

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply after final planted cultivation but before transplanting. Do not apply QUARRY post-planting as crop damage may occur. Do not apply QUARRY to any transplanted brassicas when heavy rain is forecast.
Application	Do not incorporate and avoid all unnecessary disturbance to soil after application. When transplanting care must be taken not to introduce treated soil into the root zone. If necessary, irrigation should be used before application as some moisture is essential for the chemical to be activated.
Soil types	Do not use on crops grown on sands (CS, S, FS, LCS), very light soils (LS, LFS, CSL), as crop damage may result.
Notes	If emerged weeds are present at pre-transplanting application, apply QUARRY in tank mix with a recommended approved contact herbicide.

3.9 Bulb onions (Spring and autumn drilled or transplanted) and Leeks (drilled only)

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare
Timing	Drilled crops - apply QUARRY as soon as possible after drilling but before crop or weed emergence. Transplanted crops - apply QUARRY pre-transplanting. Do not apply QUARRY to any onion or leek crop when heavy rain is forecast.
Seed depth	Seed should be covered with a minimum of 2.5 cm of settled soil.
Application	When transplanting, care must be taken not to introduce treated soil into the root zone.

Soil types	QUARRY is not recommended for use on onions or leeks grown on sands (CS, S, FS, LCS), very light soils (LS, LFS, CSL), as crop damage may result. QUARRY is not recommended for use on onions or leeks grown on fen soils or other soils containing in excess of 10% organic matter, as weed control may be reduced.
Notes	If weeds are present, these can be controlled by applying QUARRY in tank mix with a recommended contact herbicide. Read tank mix partner label carefully for restrictions on transplanted multi-seeded onions or leeks.

3.10 Forage maize

Product	QUARRY
Rate	3.75 L/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence to before 4th leaf of the crop.
Notes	Do not use on Sweetcorn or Maize grown for seed. Seed must be covered by a minimum of 5 cm of settled soil. The use of QUARRY may affect the full development of crown roots which function only to anchor the plant. This has no effect on the yield of maize. If application is followed by a period of dry conditions or in situations where very heavy populations occur, a sequence of QUARRY and a product applied post-emergence may be necessary.

3.11 Strawberries (Maiden and Established crops)

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare
Timing	Maiden Beds - runners should be planted so that roots are well covered. - good consolidation of the plantbed is necessary for good weed control.

Timing	Maiden Beds (continued) - QUARRY should be applied to dormant newly planted runners in the autumn or early spring immediately after planting and prior to weed emergence. - if runners are likely to be slow in establishing due to stress conditions, such as drought, at the time of planting, the application of QUARRY should be delayed until plants have established and are free of stress. - application made after runners have started growing away may reduce the initial vigour of new foliage but this will be rapidly outgrown. - do not apply QUARRY before October to beds newly planted with cold-stored runner or beds newly planted in late summer. - pre-planting application of QUARRY is not recommended. Established beds - apply QUARRY to weed free soil from autumn to early spring during the dormant period of the crop. - QUARRY applied after the end of March or after the emergence of flower trusses in the spring may affect crop yield, particularly if conditions adverse to vigorous plant growth follow application.
Notes	Leaf growth of strawberries may be checked following applications of QUARRY in the spring but, in extensive to affect yield. Do NOT use QUARRY on protected crops or crops grown in green houses.

3.12 Bush Fruit – Blackcurrants, Gooseberries

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare
Timing	Apply QUARRY after final cultivation to weed-free soil from autumn to early spring during the dormant period of the crop before bud burst, either over the top or as a directed spray. QUARRY is not recommended for use in the season of planting.
Tank mixes	If emerged weeds are present at application, QUARRY may be applied as a directed spray in tank mix with a recommended approved contact herbicide.

3.13 Cane Fruit – Raspberries, Loganberries, Tayberries, Blackberries

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare
Timing	Apply QUARRY after final cultivation to weed-free soil from autumn to early spring. QUARRY is not recommended for use after the end of March unless adequate soil moisture is present as some soil moisture present is essential for the chemical to be activated. Do not apply to autumn fruiting raspberries.
	<p>Newly planted crops:</p> <ul style="list-style-type: none"> - QUARRY should be applied immediately after planting. - a light ridging along the cane row before application is recommended to ensure roots are well covered. - QUARRY should be applied well before the emergence of the new canes. <p>Established crops:</p> <ul style="list-style-type: none"> - QUARRY should be applied as soon as the canes have been cut out and tied, but before bud burst.
Tank mixes	If emerged weeds are present at application, QUARRY may be applied as a directed spray in tank mix with a recommended approved contact herbicide.

3.14 Top Fruit – Apples, Cherries, Pears, Plums

Product	QUARRY
Rate	3.3 L/ha
Water volume	100 to 200 litres/hectare
Timing	Apply QUARRY to weed-free soil from autumn to early spring. QUARRY is not recommended for use after the end of March unless adequate soil moisture is present as some soil moisture is essential for the chemical to be activated. QUARRY is not recommended for use in the season of planting.
Tank mixes	If emerged weeds are present at the time of application, QUARRY should be applied in tank mix with a recommended approved contact herbicide.

4. Following Crops

4.1 Following crops after normal harvest

Before Ryegrass is drilled after a very dry season, plough or cultivate to at least 15 cm.

If spring crops are to be followed by crops other than cereals plough or cultivate to at least 15 cm.

4.2 In the event of crop failure

In the event of crop failure the land must be ploughed or thoroughly cultivated to a minimum depth of 15 cm to ensure any residues are evenly dispersed throughout the soil.

The minimum intervals (specified below) should elapse between application of QUARRY and the sowing of one of the following crops listed below.

Application timing	Minimum interval	In the event of crop failure, the following crops may be drilled:
Autumn	5 months	Spring wheat, spring barley, spring field beans, broad beans, dwarf beans, Brussels sprouts, cabbage, calabrese, carrots, cauliflower, parsnips, parsley, peas, potato, linseed, maize, turnip
Spring & early summer	2 months	Spring field beans, broad beans, dwarf beans, Brussels sprouts, cabbage, calabrese, Carrots, cauliflower, parsnips, parsley, peas, linseed, turnip
	5 months	Any crop (with the exception of red beet, sugar beet and spinach) may be planted or sown.
	12 months	Red beet, sugar beet and spinach

5. Mixing and Application

5.1 Mixing

Never prepare more spray solution than is required.

Half fill the tank with clean water and start the agitation. To ensure thorough mixing of the product, invert the container several times before opening.

Add the required quantity of QUARRY to the spray tank while re-circulating. Fill up the tank with water and continue agitation until spraying is completed.

When tank mixes are to be used, take due note of any instructions given as to the order of mixing. Each product should be added separately to the spray tank and fully dispersed before the addition of any further product(s).

On emptying the container, rinse container thoroughly by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of container safely.

5.2 Application

Ensure good, even spray cover of the target using a FINE or MEDIUM quality spray, as defined by BCPC.

Apply QUARRY in 100-200 L/ha. For potatoes apply QUARRY in minimum 200 L/ha water.

When tank mixing with other products use a minimum water volume of 150-200 L/ha depending on the tank mix partner.

When using 100 L/ha include an 80 mesh inline boom filter.

5.3 Sprayer cleaning

After spraying, thoroughly clean and flush out application machinery with a minimum of three rinses, to ensure that all traces of product are removed.

6. Tank Mixtures

For details of compatibilities contact your distributor or call the technical helpline: 0845 564 6959.

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Marketing company

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Technical helpline: 0845 564 6959

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