



BELCHIM

C R O P P R O T E C T I O N

QUAZAR®

Version and date: Version 5 Autumn 2016

Changes since last version: Removal of barley recommendation following review of diquat MRLs

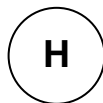


This label is compliant with the CPA Voluntary Initiative Guidance

FORMULATION AND ACTIVE INGREDIENT: A soluble concentrate containing 200 g/litre (16.7% w/w) diquat present as 374 g/L diquat dibromide for desiccation of potato haulm, oilseed rape, laid oats for animal feed, combining peas harvested dry, field beans, red and white clover for seed and linseed and weed control in a wide range of crops.

PACK SIZE: 1 - 25 LT

MAPP No 15357



UN No: 1760

**PROTECT FROM FROST
FOR PROFESSIONAL USE ONLY**





IMPORTANT INFORMATION				
FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE/DESICCANT				
CROP/SITUATIONS	Max. Individual dose (L/ha)	Max. total dose (L/ha/crop)	Max. number of treatments (per crop)	Latest time of application
Potato weed control	2	-	1	At crop emergence (10% of crop emerged for earlies and 40% of crop emerged for main crop)
Desiccant	4	4	-	
Oilseed rape, Combining Pea (dry harvested), Field bean, Red clover (seed crop), White clover (seed crop), Linseed	3	-	1	-
Oats (animal feed)	4	-	1	-
All edible crops All non-edible crops	2	-	1	Pre-crop emerging or transplanting
All edible crops (around) All non-edible crops (around)	2	-	-	-

Other Specific restrictions:

- Since this product is harmful to livestock, all livestock must be kept out of treated areas for at least 24 hours after treatment.
- Straw or haulm from treated crops must not be used as animal feed (or bedding) for at least 4 days after application.
- Non-returnable containers must not be re-used for any purpose.
- This product must not be applied through ultra low volume equipment (ULVA) or mist blower equipment.

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.

®QUAZAR is a registered trademark of Belchim Crop Protection NV/SA

Quazar		A soluble concentrate containing 200 g/litre (16.7% w/w) diquat present as 374 g/L diquat dibromide
DANGER		H290 May be corrosive to metals H302 Harmful if swallowed H315 Causes skin irritation H317 May cause an allergic skin reaction H319 Causes serious eye irritation H331 Toxic if inhaled H335 May cause respiratory irritation H372 Causes damage to organs through prolonged or repeated exposure H410 Very toxic to aquatic life with long lasting effects
		P260 Do not breathe spray P280 Wear protective gloves, protective clothing P302+P352 IF ON SKIN: Wash with plenty of soap and water P304+P340 IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
		P314 Get medical advice/attention if you feel unwell P501 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.
		EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
		SP1 Do not contaminate water with the product or its container.

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 CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate and when handling contaminated surfaces.
- WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when applying by hand-held equipment.
- WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when applying by vehicle-mounted or trailed equipment.

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

- TAKE OFF IMMEDIATELY all contaminated clothing.
- WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.
- WASH CONCENTRATE from skin or eyes immediately.
- DO NOT BREATHE SPRAY.
- WASH HANDS AND EXPOSED SKIN before meals and after work.

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.

STORAGE AND DISPOSAL

- KEEP IN ORIGINAL CONTAINER tightly closed in a safe place.
- 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 safely.
- DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

RESISTANCE

Diquat belongs to the class of herbicides known as the bipyridyls. Strains of annual meadow grass and american willowherb resistant to bipyridyls have been found in some hop yards/gardens and also top and soft fruit orchards. Where bipyridyl resistant strains are present QUAZAR may not give full control of these weeds.

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.

APPROVED USES

QUAZAR can be used as a 'harvest aid' for desiccating a wide range of crops – potatoes, oilseed rape, laid oats, combining peas for harvesting dry, field beans, linseed, red and white clover for seed. QUAZAR can be used for the control of certain broad-leaved weeds in row crops e.g. chickweed.

PROPERTIES OF QUAZAR

QUAZAR is rainfast 15 minutes after spraying and acts rapidly on the green parts of all plants. Within a few days of spraying, the green parts of most plants, both crops and weeds are

completely desiccated. QUAZAR is inactivated by soil and cannot affect further crops. QUAZAR may be applied through any standard farm sprayer.

CROP SPECIFIC INFORMATION

POTATO HAULM DESICCATION

Apply when tubers are the desired size.

If tubers are to be stored, leave 14 days after spraying to allow skins to set.

Seed crops: re-growth may occur if desiccated early.

In dry conditions see special note below.

For best results: Spray in bright light and low humidity conditions. The ideal time is mid-morning to mid-afternoon.

Rate of Use

Maximum individual dose: 4 litres per hectare.

Maximum total dose per crop: 4 litres per hectare. QUAZAR may be applied to the potato crop at 2.0 litres per hectare for weed control (see section on weed control in row crops) and up to an additional maximum of 4.0 litres product per hectare for haulm destruction.

Volume of Water

200 – 500 litres per hectare. Use 500 litres per hectare where haulm is dense.

DO NOT ADD ANY WETTER OR ADJUVANT.

SPECIAL NOTE: Application during or shortly after dry periods.

Haulm desiccants may damage tubers if applied during or shortly after dry periods. When mist, light rain or heavy dew is present or imminent, the risk of such damage is increased. Do not apply when the soil is dry.

Soil moisture around the tubers should be assessed in the field to ensure that rainfall or irrigation has penetrated to below tuber depth. It is essential that all parts of the field comply with this requirement particularly where soils vary within the field.

DESICCATION OF COMBINABLE CROPS BEFORE HARVEST

QUAZAR will not hasten crop maturity. If used on unripe or uneven seed crops, immature seed with poor germination and low bushel weight will result.

OILSEED RAPE

Apply when on most plants the seed colour at each of the three sections of the stem is as follows:

Top third	More than half of the seed will be green, firm and pliable with a few early ripening seeds brown to black in colour.
Middle third	90% of the seed will be reddish brown to dark brown with a few seeds black. The remaining 10% will be green but must be firm and pliable.
Bottom third	All the seed will be dark brown to black.

Note: This is usually 2 – 3 days later than wind-rowing would normally have started.

In crops which are leaning over, the seeds on the upper side of the stem will mature ahead of those shaded from the sunlight. In this situation, spray when all the seed in the exposed pods have turned reddish brown to dark brown. Do not wait for all the seeds in the shaded pods to reach this stage of maturity.

DO NOT apply when the crop is immature or past the recommended stage of maturity. Crops at an advanced stage of maturity will have 90% of the seed black in colour and pod shatter will be evident in early ripening pods at the base and top of the main stems.

AVOID desiccation with QUAZAR on thin, standing rape crops and on exposed sites. Losses can occur in windy weather between spraying and combining. Normal or heavy leaning crops do not suffer in this way, such crops are ideal for desiccating with QUAZAR.

Rate of use

3 litres per hectare in 250 – 500 litres of water per hectare. Use higher volumes for dense growth, in particular tall or lodged crops. Add a suitable non-ionic surfactant that is not an organosilicone in accordance with the manufacturer's instructions.

Harvesting

Direct combining can normally begin 7-10 days after spraying. Check the moisture content of the seed in the standing crop from the fifth day after treatment, using a moisture meter calibrated for oilseed rape. Combine harvesting should commence when the seed is mature, black in colour and with a moisture level ideally between 12% and 15%. To ensure a sound, clean sample of seed, the manufacturer's instructions on setting-up the combine for harvesting oilseed rape should always be followed.

LAI OATS (FOR STOCK FEEDING ONLY)

Spray when crop is mature for combining.

Apply 2 – 4 litres per hectare in 200 – 500 litres of water per hectare. Use 2 litres for common chickweed. Use 3 litres for cereal re-growth and broad-leaved weeds. Use 4 litres when cleaver and common couch are dominant. Add a suitable non-ionic surfactant that is not an organosilicone in accordance with the manufacturer's instructions.

Harvesting

As soon as desiccation is complete, normally 4 – 7 days. A delay in harvesting may result in re-growth of grass weeds.

Treated grain and straw may be fed safely to livestock from 4 days after spraying.

TREATED OATS must be used for stock feed only.

COMBINING PEAS (HARVESTED DRY)

Regular inspection of the crops particularly the bottom of the crop, should be made once it starts to take on an overall yellow appearance. Spray when the crop is mature i.e.

Top pods:	Pods are fleshy, slightly pitted and green or starting to turn yellow. The seed splits if squeezed.
Middle pods:	Pods are pitted and crinkled, yellow and becoming parchment-like in texture. The seed is rubbery i.e. can be squeezed between finger and thumb without splitting.
Bottom pods:	Pods are yellow/brown, parchment-like (paper thin). The seeds are quite hard.

Peas should have moisture content of 45% or less.

Earlier treatment may result in a proportion of shrivelled peas from immature pods at the tops of plants, thus lowering yields. The crop will take longer to dry out so that some of the advantage of desiccation is lost. There is also a risk of collapse of the haulm due to insufficient lignification of the stems.

If desiccation is left too late the advantage of earliness is lost and there is a danger that some of the bottom pods will shatter.

Rate of Use

2 – 3 litres per hectare in 200 – 500 litres of water per hectare. Use lower rate on less dense crops with few weeds.

Use of surfactants: Peas for processing for human consumption: consult your processor before adding surfactants or wetters to QUAZAR. Where crops are to be used for animal feed then add a suitable non-ionic surfactant that is not an organosilicone in accordance with the manufacturer's instructions.

Harvesting

Direct combining should be carried out 7 – 10 days after application as soon as desiccation is completed. Treated haulm may be fed to livestock from 4 days after spraying.

FIELD BEANS, INCLUDING DRIED BROAD BEAN

Spray when crop is mature and the majority of pods have turned black, to desiccate haulm and weeds.

Rate of Use:

3 litres per hectare in 200 – 500 litres of water per hectare. Add a suitable non-ionic surfactant that is not an organosilicone in accordance with the manufacturer's instructions.

Harvesting 4 – 7 days after spraying.

WHITE AND RED CLOVER FOR SEED

Red and White clover for direct combining: Spray when the crop is mature, 2 – 3 days before expected date of combining. Harvest as soon as desiccation is complete. Delay in combining may result in re-growth.

White clover combined direct from swath – spray QUAZAR 1 – 2 days before cutting. Harvest within a few hours of cutting.

Rate of Use

2 – 3 litres per hectare in 200 – 500 litres of water per hectare. Use lower rate on less dense crops. Add a suitable non-ionic surfactant that is not an organosilicone in accordance with manufacturer's instructions.

Clover straw and trash may be fed to livestock from 4 days after spraying.

LINSEED

Spray when the seed is seen to have matured evenly over the whole field. This normally occurs when the seed capsules are dark brown with seed inside light brown. The seed should also rattle in the bolls. Ideally the most mature stems should have started to turn yellow just below the capsule cluster.

Rate of Use

3 litres per hectare. Add a suitable non-ionic surfactant that is not an organosilicone in accordance with manufacturer's instructions.

Apply through conventional hydraulic field crop spraying equipment with a MEDIUM quality spray (as defined by the BCPC). Use clean water at a volume of 300 – 500 litres per hectare and a pressure of 2 – 3 bar. To retain a MEDIUM quality spray with higher water volumes, the use of twin outlet nozzles or twin spray booms may prove necessary.

A forward tractor speed of around 8 kph is desirable, coupled with a minimum practical boom height setting necessary to ensure even crop coverage and penetration to the crop stems.

Harvesting

Direct combining can normally begin 10 – 20 days after spraying when the seed moisture is below 14%. Always use a sharp knife on the combine and cut the crop as high as possible – just below the level of branching of the capsule clusters of the shortest stems. Aim to combine in bright sunny conditions, or when there is a drying wind.

WEED CONTROL IN ROW CROPS

QUAZAR can be used for the control of common chickweed in row crops.

Timing

Overall spraying:

- Sugar beet, bulbs, vegetable crops: Before crop emergence or transplanting.
Note: On sandy or peat soils allow 3 days between spraying and expected crop emergence or transplanting.
- Potatoes: Early crops: up to 10% emergence, main crops: up to 40% emergence, provided no plant is more than 15 cm high. Do not apply after emergence to crops growing from diseased seed or very small tubers, or under very hot dry conditions. Up to a further 4.0 l/ha may be applied for potato haulm desiccation following an application of QUAZAR for weed control. See previous section for details.

Inter-row spraying:

Post crop emergence (between the rows of any row crop).

- Use sprayers designed to prevent contamination of the crop foliage by spray.
- Most effective control of weeds is obtained when applications are made at the seedling stage.

Rate of Use

2 litres QUAZAR per hectare

Volume of water

200 – 500 litres per hectare. Add a suitable non-ionic surfactant that is not an organosilicone in accordance with the manufacturer's instructions. Use higher rates if weeds are dense or beyond the seedling stage.

MIXING AND SPRAYING

Apply through a ground sprayer in good condition. Do not apply through mist-blowers. Avoid spray drift: Do not spray in windy conditions.

Fill the spray tank nine tenths full of clean water; then start agitation. Add the recommended quantity of QUAZAR to the sprayer using a filling device (e.g. induction hopper), or by direct addition to the spray tank. Thoroughly rinse empty containers, preferably use an integrated pressure rinsing device (or manually rinse three times). Add washings to the sprayer at the time of filling. Top up tank with water to the required volume.

It is essential to spray accurately and to obtain complete cover of crop and weeds:

- Make sure nozzles are in good condition and that sprayer boom is set high enough to ensure complete coverage.
- Apply by conventional hydraulic sprayer (high clearance if necessary) as a MEDIUM quality spray (as defined by the BCPC) using a pressure of 2 – 3 bar. For the higher spray volumes use twin outlet nozzles or twin spray booms.
- Ensure that the sprayer is correctly calibrated before use.
- Do not leave spray liquid in the sprayer for long periods (i.e. during meals or overnight).
- Apply application volumes as per individual crop recommendations.
Use higher volumes for dense growth.

SPECIAL NOTE: application during or shortly after dry periods

Damage is most likely to occur if the MORECS (Meteorological Office Rainfall and Evaporation Calculation System) exceeds 33 – 83 mm according to soil type as in the table below.

Soil texture*	Ware**	Early or Seed	Canning
Sands Very light soils Light soils	50 mm	33 mm	DO NOT USE

All stony soils (Including stony medium and heavy soils)			
Medium soils Heavy soils (for stony soils see above)	66 mm	60 mm	DO NOT USE
Organic soils (over 10% organic matter) Peaty soils Peats	83 mm	66 mm	50 mm

* As described in RDS Technical Advice Note 52 'Soil Texture'

** If the crop is immature or the haulm is very vigorous use the figures in the Early or Seed column.

NOTES

Before using any tank mixture, consult and comply with the recommendations of the partner products. Each product should be added separately to the bulk of the water in the spray tank and thoroughly mixed before adding the next chemical. Always use constant agitation of the sprayer tank during mixing, transportation and application. Spray immediately.

TECHNICAL ENQUIRIES:	01480 403333
24 HOUR EMERGENCY NUMBER:	0032 1458 4545

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