

CLAYTON BASTILLE

MAPP 17012

Contains 250g/l azoxystrobin in a suspension concentrate

A strobilurin fungicide the control of a range of diseases in the listed agricultural and horticultural crops.



Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

DANGEROUS FOR THE ENVIRONMENT

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

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL FUNGICIDE

Crops	Maximum individual dose of product	Maximum number of treatments	Latest time of application
Wheat, barley, rye, triticale, oats	1 l/ha	2 per crop	Up to and including grain watery ripe stage
Combining pea	1 l/ha	2 per crop	36 days before harvest
Vining pea	1 l/ha	2 per crop	14 days before harvest
Bulb onion	1 l/ha	4 per crop	14 days before harvest
Leek	1 l/ha	4 per crop	21 days before harvest
Carrot	1 l/ha	4 per crop	10 days before harvest
Asparagus (outdoor)	1 l/ha	3 per year	Before senescence
Field bean	1 l/ha	2 per crop	35 days before harvest
Oilseed rape	1 l/ha	2 per crop	21 days before harvest
Outdoor crops of: Brussels sprout, cabbage, cauliflower, kale, collards and broccoli/calabrese	1 l/ha	2 per crop	14 days before harvest
Potato	6 l/ha	1 per crop	Pre-planting, as an overall or incorporated treatment
	Or 3 l/ha	1 per crop	At planting, applied as an in-furrow treatment

Other specific restrictions

- 1) To reduce the risk of resistance developing on target diseases the total number of applications of products containing QoI fungicides made to any cereal crop must not exceed two.
- 2) A minimum interval of 12 days must be observed between applications to brassicae.
- 3) Applications to Brussels sprout, broccoli/calabrese, cauliflower, cabbage, kale and collards must only be made to the developed crop canopy and not before the following growth stages:
 - For Brussels sprout: BBCH 35 – side shoots formed, main shoot has reached 50% of the height typical for the variety.
 - For broccoli/calabrese and cauliflower: BBCH 35 – main shoot has reached 50% of the expected height typical for the variety or prior to curd initiation.
 - For cabbage: BBCH 41 – heads begin to form; the two youngest leaves do not unfold.
 - For kale and collards: BBCH 35 - main shoot has reached 50% of the height typical for the variety.

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 contaminated surfaces **during the treatment of potato crops.**

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

WASH SPLASHES from skin or eyes immediately.

DO NOT BREATHE SPRAY.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH HANDS AND EXPOSED SKIN before eating and drinking 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.

Use appropriate containment to avoid environmental contamination.

Avoid drift on to non-target plants.

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

This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme **when treating potatoes at 6 litres product per ha.** Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with CRD published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing waterbody, unless a Local Environmental 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.

Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

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

This material and its container must be disposed of in a safe way.

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 the container safely.

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

Safety data sheet available for professional user on request.

This product is approved under the Plant Protection Products Regulations (as amended).

Clayton Plant Protection (UK) Ltd.,

Bracetown Business Park
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Contents: **5 litres**

PROTECT FROM FROST
SHAKE THOROUGHLY BEFORE USE
Batch No:

Permit holder: Clayton Plant Protection Ltd; address as above.

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains azoxystrobin) UN 3082, Class 9; Packing Group III
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Conditions of Supply: all goods supplied by us are of high quality and we believe them to be correct but, as we cannot exercise control over their storage, handling, mixing or use, or weather conditions before, during and after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded, and no responsibility will be accepted by us or resellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

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.

Clayton Bastille is a strobilurin fungicide that acts by inhibition of mitochondrial respiration. Optimum economic responses are most likely to be obtained from crops with high yield potential, growing under good conditions. Conversely, worthwhile responses are less likely to be obtained from crops with a lower yield potential or growing under less than optimum conditions. Do not treat crops lacking vigour. The best results are usually obtained from applications made as soon as disease appears or, if according to a plan based upon the judgment of the expected disease challenge to the crop, before disease appears.

DISEASE RESISTANCE MANAGEMENT

Clayton Bastille contains azoxystrobin, a member of the QoI cross resistance group of fungicides. Clayton Bastille should be used preventatively and should not be relied upon for curative potential.

General advice

- Where available, make full use of disease-resistant varieties.
- Use crop rotation to avoid the build-up of soil-borne pathogens.
- Practice good crop hygiene by paying close attention to the disposal of plant debris and elimination of other primary sources of inoculum, e.g. self-sown plants, dumps etc.
- Use soil sterilisation, tool disinfection and general hygiene to reduce the incidence of disease.
- Minimise the use of fungicides by avoiding unnecessary prophylactic treatments and particularly repeated applications of fungicides of the same group.
- Alternate applications of fungicides from different groups. Use the recommended dose.
- Make as full a use as possible of fungicides with a multi-site mode of action, which are less prone to fungicide resistance problems.

Advice specific to cereals

- Use Clayton Bastille as part of an Integrated Crop Management (ICM) strategy incorporating other methods of control, including where appropriate, other fungicides with a different mode of action. Do not apply more than two foliar applications of QoI containing products to any cereal crop.
- There is a significant risk of widespread resistance occurring in *Septoria tritici* populations in the UK. Failure to follow resistance management action may result in reduced levels of disease control.
- On cereal crops, Clayton Bastille must always be used with another product recommended for the control of the same target disease and which contains a fungicide from a different cross resistance group and which is applied at a dose that will give robust control.
- Strains of barley powdery mildew resistant to QoI group fungicides are common in the UK. Disease control might be reduced if strains of other pathogens less sensitive to azoxystrobin develop. Refer to current FRAG-UK guidelines for QoI compounds.

LISTED CEREALS

Rate of application

Apply Clayton Bastille at 1 l/ha in all situations. Up to 2 applications may be applied to any one crop. Application may be made up to and including the grain being watery ripe. Clayton Bastille should always be tank-mixed with a product from a different cross resistance group with activity against the intended target diseases; the partner product must be mixed with the Clayton Bastille at a rate such that the mixture produces good control of the target diseases.

Winter and spring wheat

Disease	Time of treatment
Leaf spot (<i>Septoria tritici</i>) Glume blotch (<i>Septoria nodorum</i>)	Normally spray from flag leaf just visible up to ear emergence complete. Under higher risk conditions, spray earlier, before disease reaches the upper leaves.
Brown rust Yellow rust (<i>Puccinia spp.</i>)	Treat when the disease first appears. Timely treatment to prevent the diseases becoming established gives the best results.
Ear blight (<i>Alternaria spp.</i> and <i>Cladosporium spp.</i>)	An application made during ear emergence will reduce ear blight.
Co-incident disease reduction	When applied at the first or second node stages for the control of one of the above diseases, a co-incident reduction in the severity of Take-all (<i>Gaeumannomyces graminis</i>) may be gained.

Winter and spring barley, rye and triticale

Disease	Time of treatment
Moderate control of powdery mildew (<i>Erysiphe graminis</i>)	Spray as soon as active mildew is visible on the leaves. Repeat if necessary.
Brown rust (<i>Puccinia hordei</i> - barley) (<i>Puccinia recondita</i> – rye and triticale)	Treat when the disease first appears. Timely treatment to prevent the disease becoming established gives the best results.
Reduction of leaf blotch (<i>Rhynchosporium secalis</i>) Net blotch on barley (<i>Pyrenophora teres</i>)	Treat when disease first appears. Repeat if necessary, particularly when conditions have favoured disease.
Co-incident disease reduction	When applied at the first or second node stages for the control of one of the above diseases, a co-incident reduction in the severity of Take-all (<i>Gaeumannomyces graminis</i>) may be gained.

Winter and spring oats

Disease	Time of treatment
Moderate control of powdery mildew (<i>Erysiphe graminis</i>) Crown rust (<i>Puccinia coronata</i>)	Treat when disease first appears. Timely treatment to prevent the disease becoming established gives the best results. Repeat if necessary.

OILSEED RAPE

Rate of application

Apply Clayton Bastille at 1 l/ha in all situations. Up to 2 applications may be applied to any one crop. Application may be made up to 21 days before harvest. Ensure that the crop is free from stresses affecting normal growth before treatment.

Winter and spring oilseed rape

Disease	Time of treatment
Stem rot (<i>Sclerotinia sclerotiorum</i>)	A spray applied at early to mid-flower will reduce the incidence of <i>Sclerotinia</i> stem rot. This treatment will also be beneficial in limiting the incidence of <i>Alternaria</i> spp.
Dark leaf spot Pod spot (<i>Alternaria</i> spp.)	Apply preventatively before pod spots appear at the first formed pods stage (defined as 10 undeveloped pods per plant each less than 40 mm long).

POTATOES

For the reduction of black scurf and stem canker (*Rhizoctonia solani*) and black dot (*Colletotrichum coccodes*). Good rotational practice to minimise soil borne disease is a priority requirement before the use of Clayton Bastille.

Preferably plant un-chitted, cold-stored seed or well-chitted seed. Delayed emergence might result from the planting of partially-chitted seed. The use of fungicidally treated seed, e.g. with products containing imazalil, penicuron etc, will often further delay emergence. The effects of delayed emergence may not be outgrown totally in some seasons.

Clayton Bastille is not effective in soils of high organic matter status and its use is not recommended for these soils.

The use as seed of potatoes from a treated crop is not recommended; selection pressure for disease resistance will be increased from such use. The risk of resistance developing to black dot (*Colletotrichum coccodes*) is considered significant whilst the development of resistance in black scurf and stem canker (*Rhizoctonia solani*) populations is considered to be very low.

Apply *either* before planting as an overall soil-incorporated treatment *or* in-furrow during planting.

Time of treatment	Method and remarks	Dose
Pre-planting soil incorporation	<ul style="list-style-type: none">Spray onto the soil surface during the final stages of seed-bed preparation.Thoroughly incorporate into the soil to 15 cm depth at the same time as spraying or in a separate operation shortly after spraying, using, ideally, a rotary cultivator.Plant on the day of application and incorporation.	6 l/ha in 200-400 l/ha water as a MEDIUM/COARSE spray. <i>Note: the LERAP scheme applies specifically to this treatment.</i>

In-furrow during planting	<ul style="list-style-type: none"> • Aim to mix the spray within the body of soil surrounding the planted tubers as thoroughly as possible. • Mount two sprayer nozzles onto each planting unit, one fore and the other aft, of the tuber setting point. • The leading nozzle is positioned just behind the furrow opener so that spray is directed evenly onto the soil surfaces, bottom and sides, of the opened furrow. • The second nozzle is positioned behind the tuber setting point but before the coverers to deliver spray across the furrow into the face of the tumbling soil as it is formed into the closing ridge. • Ensure that the nozzles are set to achieve maximum mixing of the spray and soil. • Do not direct spray onto the planted tuber. 	3 l/ha in 80-150 l/ha water as a FINE/MEDIUM spray.
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PEAS

Rate of application

Apply Clayton Bastille at 1 l/ha. Up to 2 applications may be applied to any one crop. Application may be made to combining peas up to 36 days before harvest and to vining peas 14 days before harvest.

Combining peas and vining peas

Disease	Time of treatment and remarks
Leaf and pod spot (<i>Ascochyta pisi</i>) - reduction of disease	Spray before or immediately disease appears, normally at early flowering, and before it becomes aggressive. A second application may be required, normally at late flowering. Ensure that the crop is free from stresses affecting normal growth and that the leaf wax is intact before treatment; if necessary conduct the crystal violet test. A reduction of Grey mould (<i>Botrytis cinerea</i>) and <i>Mycosphaerella</i> blight may be achieved co-incidentally.

FIELD BEANS

Rate of application

Apply Clayton Bastille at 1 l/ha. Up to 2 applications may be applied to any one crop. Application may be made up to 35 days before harvest.

Winter and spring field beans

Disease	Time of treatment
Rust (<i>Uromyces viciae-fabae</i>)	Spray as soon as disease is seen or is expected. Repeat if necessary. Ensure that the crop is free from stresses affecting normal growth before treatment.

ONIONS AND LEEKS

Rate of application

Apply Clayton Bastille at 1 l/ha. Up to 4 applications may be applied to any one crop. Application may be made to bulb onions up to 14 days before harvest and to leeks 21 days before harvest.

Important: vary the spray programme to deter the development of disease resistance. Do not apply more than 2 applications of Clayton Bastille applied alone. Do not apply more than four applications in total when applying in a programme in tank-mixture with a fungicide from a different cross-resistance group. Control of established downy mildew infections is unlikely to be achieved with Clayton Bastille.

Bulb onions and leeks

Crop	Disease	Time of treatment
Bulb onions	Downy mildew (<i>Peronospora destructor</i>)	Immediately disease is seen or is expected. Repeat if required for up to 3 more sprays at 7-10 day intervals.
Leeks	Leek rust (<i>Puccinia porri</i>)	
	Purple blotch (<i>Alternaria porri</i>) - moderate control	

CARROTS

Rate of application

Apply Clayton Bastille at 1 l/ha. Up to 4 applications may be applied to any one crop. Application may be made up to 10 days before harvest.

Important: vary the spray programme to deter the development of disease resistance. Do not apply more than 2 applications of Clayton Bastille applied alone. Do not apply more than four applications in total when applying in a programme in tank-mixture with a fungicide from a different cross-resistance group.

Disease	Time of treatment
Alternaria leaf blight (<i>Alternaria dauci</i>) Powdery mildew (<i>Erysiphe polygoni</i>)	Immediately disease is seen or is expected. Repeat if required.

LEAFY AND FLOWER-HEAD BRASSICAE

Rate of application

Apply Clayton Bastille at 1 l/ha in all situations. Up to 2 applications may be applied to any one crop. A minimum interval of 12 days must be observed between applications. Application may be made up to 14 days before harvest.

Brussels sprout, cabbage, cauliflower, kale, collards and broccoli/calabrese

Disease	Time of treatment and remarks
Moderate control of: Ring spot (<i>Mycosphaerella brassicicola</i>) Alternaria (<i>Alternaria brassicae</i> and <i>A. brassicicola</i>) White blister (<i>Albugo candida</i>)	Apply only to the developed crop canopy and not before the following growth stages: Brussels sprout: BBCH 35 – side shoots formed, main shoot has reached 50% of the height typical for the variety. Broccoli/calabrese and cauliflower: BBCH 35 – main shoot has reached 50% of the expected height typical for the variety or prior to curd initiation. Cabbage: BBCH 41 – heads begin to form; the two youngest leaves do not unfold. Kale and collards: BBCH 35 - main shoot has reached 50% of the height typical for the variety. Spray as soon as disease is apparent or expected after the permitted growth stages for the crop have been reached. Repeat if necessary. Ensure that crops are free from stresses affecting normal growth before treatment.

ASPARAGUS

Rate of application

Apply Clayton Bastille at 1 l/ha. Up to 3 applications per year may be applied.

Important: vary the spray programme to deter the development of disease resistance. Do not apply more than 2 applications of Clayton Bastille applied alone. Do not apply more than three applications in total when applying in a programme in tank-mixture with a fungicide from a different cross-resistance group.

Disease	Time of treatment
Rust (<i>Puccinia asparagi</i>)	Ensure that the crop is free from stresses affecting normal growth before treatment.
<i>Stemphyllium</i> leaf spots	Apply after the conclusion of cutting to end-September or before the start of senescence if earlier, as soon as disease is seen or expected. Repeat after 8-12 days if required. Allow newly planted beds to become established for one month before treating.

GENERAL INFORMATION AND CONDITIONS

APPLICATION (BCPC definitions)

For crops other than potatoes, apply the recommended dose as a MEDIUM spray produced at not less than 2 bar. Spray only when the crop foliage is dry and rain is not anticipated; a period of at least 2 hours free of rain is required for the spray to become rainfast. Avoid spray drift.

Spray water volume

Cereals, field beans, oilseed rape, peas, bulb onions, leeks and carrots: apply in at least 200 l/ha water increasing to 250-300 l/ha water when crop growth is dense.

Asparagus: for conventional powered hydraulic sprayers apply in 600 l/ha water as a MEDIUM spray. Apply in at least 200 l/ha if using hand-held sprayers.

Brussels sprout, cabbage, cauliflower, kale, collards and broccoli/calabrese: apply in at least 300 l/ha water.

Potatoes

See also the relevant table instructions when treating potatoes.

Pre-planting incorporated treatment: apply in 200-400 l/ha water as a MEDIUM/COARSE spray. Ideally use pre-orifice or air-induction nozzles positioned 50 cm above the soil surface. Avoid spray drift. This application is subject to the LERAP scheme.

In-furrow treatment: apply in 80-150 l/ha water as a FINE/MEDIUM spray.

Caution: some varieties of apple are highly sensitive to azoxystrobin. Do not apply Clayton Bastille if there is a possibility that spray drift may reach apple crops in the vicinity. Do not use equipment that has been used for the application of Clayton Bastille, for any subsequent application to apples.

MIXING

Shake the container thoroughly before pouring. Half-fill the sprayer tank with clean water. With the contents of the spray tank under agitation, add the required quantity of Clayton Bastille. Maintain agitation whilst topping up the tank to the required level and until the completion of spraying. Spray immediately after mixing. Do not allow mixed spray to stand for long periods, e.g. during meals or overnight. Wash all equipment thoroughly after use.

COMPATIBILITY

Clayton Bastille is physically compatible for co-application with certain approved pesticides. Please contact your distributor for further information. When tank-mixing follow the Directions for Use of the other product to be applied in the tank-mix together with those of this label. Mix each product separately in the spray tank and allow to disperse fully before mixing in the partner product.

PROCESSED CROPS

Processors should be consulted before treating crops intended for processing.

EQUIPMENT MAINTENANCE

Immediately after use wash the spraying machine and all utensils thoroughly with clean water and a wetting agent recommended for the cleaning of application equipment. Dispose of washings and empty containers in the approved manner - see 'Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings' (DEFRA/HSE).
