



Serpent[®]



MAPP 17427

An emulsifiable concentrate containing 150 g/litre (14.6% w/w) pyraclostrobin and 75 g/litre (7.3% w/w) fluxapyroxad.

A systemic fungicide for use in winter wheat, spring wheat, durum wheat, winter barley, spring barley, triticale, rye and oats.

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 contaminated surfaces.

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

Do not apply via hand-held equipment.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

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

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 metres of the top of the bank of a static or flowing water body, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a

narrower buffer zone, or within 1 metre from 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 inspection for three years.

Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

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.

Store in a suitable pesticide store. Keep dry and protect from frost.

Do not re-use container for any purpose.

This label is compliant with the CPA Voluntary Initiative Guidance

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Supplied by: BASF plc, 4th and 5th Floors, 2 Stockport Exchange, Railway Road, Stockport SK1 3GG, Telephone: 0161 475 3000

**Emergency Information (24 hours freephone): 0049 180 227 3112
Technical Enquiries: 0845 602 2553 (office hours)**

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An emulsifiable concentrate containing
150 g/litre (14.6% w/w) pyraclostrobin and
75 g/litre (7.3% w/w) fluxapyroxad.

Warning

Harmful if swallowed.

Harmful if inhaled.

May cause respiratory irritation.

May cause harm to breast-fed children.

Very toxic to aquatic life with long lasting effects.

Use only outdoors or in a well-ventilated area.

If medical advice is needed, have product container or label at hand.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF exposed or concerned: Call a POISON CENTRE or doctor/physician.

Store in a well-ventilated place. Keep container tightly closed.

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 propanoic acid, 2-hydroxy-, 2-ethylhexyl ester, (2S)-. May produce an allergic reaction.

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



IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL FUNGICIDE, as directed below:

CROPS:	Maximum individual dose	Maximum number of applications	Latest time of application	Aquatic buffer zone distance (metres):
Winter and spring wheat, Durum wheat, Rye, Triticale, Winter and spring Barley, Oats	1.5 litres product/ha	2 per crop	Up to and including Flowering (anthesis) just complete (BBCH 69)	5

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.

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.

Serpent is a protectant and systemic fungicide for use in winter wheat, spring wheat, durum wheat, winter barley, spring barley, triticale, rye and oats. When applied for disease control this product may increase green leaf area retention of wheat, barley, rye and triticale.

Restrictions/Warnings

Extreme care must be taken to avoid drift onto nearby crops.

When applied to barley intended for malting, refer to the rate and latest timing restrictions for fluxapyroxad and pyraclostrobin given by the British Beer and Pub Association.

No more than two applications of any QoI fungicide may be made to crops of wheat, barley, oats, rye or triticale.

You must not apply more than two foliar applications of products containing complex II inhibitors (SDHIs) to any cereal crop.

After spraying, wash out sprayer thoroughly according to manufacturer's guideline and dispose of washings and clean containers according to DEFRA Code of Practice and local authority guidelines.

Disease control

Serpent is a protectant and systemic fungicide for the control of a range of diseases in winter wheat, spring wheat, durum wheat, winter barley, spring barley, triticale, rye and oats as summarised below:

	Winter wheat	Spring wheat	Durum wheat	Winter barley	Spring barley	Oats	Rye	Triticale
<i>Septoria tritici</i>	C	C	C	-	-	-	-	C
<i>Septoria nodorum</i>	MC	MC	MC	-	-	-	-	-
Yellow rust	C	C	C	C	C	-	C	C
Brown rust	C	C	C	C	C	-	C	C
Crown rust	-	-	-	-	-	C	-	-
<i>Rhynchosporium</i>	-	-	-	C	C	-	C	-
Net blotch	-	-	-	C	C	-	-	-
<i>Ramularia</i>	-	-	-	C	C	-	-	-
<i>Powdery mildew</i>	MC	MC	MC	MC	MC	MC	MC	MC

	Winter wheat	Spring wheat	Durum wheat	Winter barley	Spring barley	Oats	Rye	Triticale
Tan Spot	C	C	C	-	-	-	-	-

C = Control

MC = Moderate Control

When applied for disease control this product may increase green leaf area retention of wheat, barley, rye and triticale.

Resistance Management

Serpent should be used in accordance with the instructions for use for the target diseases at the specific growth stages indicated.

Use Serpent 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.

Serpent contains pyraclostrobin, a member of the QoI cross resistance group.

Serpent should be used preventatively and should not be relied upon for its curative potential.

You must not apply more than two foliar applications of QoI containing products to any cereal crop.

Strains of barley powdery mildew resistant to QoIs are common in the UK.

Serpent contains fluxapyroxad which belongs to the SDHI (carboxamide) complex II inhibitor group of fungicides.

To minimise the risk of resistance occurring, apply a maximum of two SDHI fungicide sprays 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.

For the control of *Septoria* leaf blotch, Serpent must always be used in mixture with another product recommended for its control, and that contains a fungicide from a different cross resistance group to SDHIs and QoIs and is applied at a dose that will give robust control

Visit the FRAG-UK website for further advice on resistance management of cereal fungicides.

Crop Specific Information

Serpent is a protectant and systemic fungicide for use in winter wheat, spring wheat, durum wheat, winter barley, spring barley, triticale, rye and oats.

Time of Application

Apply Serpent at the start of foliar disease attack. A maximum of two applications can be made up to and including flowering just complete in winter and spring wheat, durum wheat, winter and spring barley, oats and rye and triticale.

Earliest timing for first application: BBCH 25

Earliest timing for second application: BBCH 30

Rate of Application

Apply 1.5 litres of Serpent per hectare in 150 to 300 litres of water per hectare.

Qualified recommendation

Serpent may be applied at 1.5 litres per hectare in 100 litres water per hectare, although efficacy at this reduced volume has not been evaluated. Therefore application at 100 litres water per hectare is at user's risk with regard to biological efficacy

Mixing and Application

Mixing

Half fill the spray tank with clean water and start the agitation.

SHAKE THE CONTAINER WELL before use and pour in the required amount of product.

Rinse any empty containers thoroughly and add rinsings to the spray tank.

Add the remainder of the water and continue agitation until spraying is completed.

When tank mixes are to be used, each product should be added separately to the spray tank, taking due note of any instructions given as to the order of mixing.

Application

Apply as a MEDIUM spray, as defined by BCPC.

Following Crops

After treating a cereal crop with Serpent, cabbage, carrot, clover, dwarf French beans, field beans, lettuce, maize, oats, oilseed rape, onions, peas, potatoes, ryegrass, sugar beet, sunflowers, barley and wheat may be sown as the following crop. The effect of Serpent on other following crops has not been assessed.

Compatibility

For details of compatibilities contact your distributor, local BASF representative or the BASF Technical Services Hotline: 0845 602 2553 or visit our website on: www.agriCentre.basf.co.uk.

The following does not form part of the authorised label text.

With many products there is a general risk of resistance developing to the active ingredients. For this reason a change in activity cannot be ruled out. It is generally impossible to predict with certainty how resistance may develop because there are so many crop and use connected ways of influencing this. We therefore have to exclude liability for damage or loss attributable to any such resistance that may develop. To help minimise any loss in activity the BASF recommended rate should in all events be adhered to.

Numerous, particularly regional or regionally attributable, factors can influence the activity of the product. Examples include weather and soil conditions, crop plant varieties, crop rotation, treatment times, application amounts, admixture with other products, appearance of organisms resistant to active ingredients and spraying techniques. Under particular conditions a change in activity or damage to plants cannot be ruled out. The manufacturer or supplier is therefore unable to accept any liability in such circumstances. All goods supplied by us are of high grade and we believe them to be suitable, but as we cannot exercise control over their mixing or use or the weather conditions during and after application, which may affect the performance of the material, 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 for any damage or injury whatsoever arising from their storage, handling, application or use; but nothing should be deemed to exclude or restrict any liability upon us which cannot be excluded or restricted under the provisions of the Unfair Contract Terms Act 1977 or any similar applicable law.

Section 6 of the Health and Safety at Work Act

Additional Product Safety Information

The product label provides information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that the particular use has "off-label" approval or is otherwise permitted under the Plant Protection Product Regulations (EC) No 1107/2009.

The information on this label is based on the best available information including data from test results.

Safety Data Sheet

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:



agricentre.basf.co.uk/Serpent/MSDS

Alternatively, contact your supplier.

SPECIMEN



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