

# **CERONE**

A growth regulator for use in winter and spring varieties of barley and winter varieties of wheat, rye and triticale.

A soluble concentrate formulation containing 480 g/l (39.6% w/w) Ethephon, (2-chloro-ethylphosphonic acid).

MAPP 15944

### Ethephon, (2-chloroethylphosphonic acid) is an organophosphate. Handle with care.

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

(Size and batch number)

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## SAFETY PRECAUTIONS

### **Operator Protection**

This product contains an anticholinesterase organophosphorus compound and must not be used by those under medical advice NOT to work with such compounds

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

WEAR SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACE SHIELD) when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

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

WASH CONCENTRATE from skin or eyes immediately.

AVOID ALL CONTACT BY MOUTH.

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.

# **Storage and Disposal**

KEEP IN ORIGINAL CONTAINER tightly closed in a safe place.

KEEP OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.



### **CERONE**

Contains 480 g/l (39.6% w/w) Ethephon, (2-chloroethylphosphonic acid).



HARMFUL

HARMFUL BY INHALATION
RISK OF SERIOUS DAMAGE TO EYES
HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN
THE AQUATIC ENVIRONMENT

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of insufficient ventilation wear suitable respiratory equipment. Wear eye/face protection.

Use appropriate container to avoid environmental contamination.

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

### **IMPORTANT INFORMATION**

# FOR USE ONLY AS AN AGRICULTURAL PLANT GROWTH REGULATOR

| Crops/situations | Maximum<br>individual dose<br>(L product/Ha) | Maximum Total<br>dose<br>(L product/Ha) | Maximum total number of treatments | Latest time of application  |
|------------------|--|---|------------------------------------|---|
| Winter wheat     | 0.75   | 0.75                                    | -                                  | Before flag leaf sheath opening stage (GS47)                                      |
| winter triticale | 1.0  | 1.0                                     | -                                  | Before flag leaf sheath opening stage (GS47)                                      |
| winter barley    | 1.0  | 1.0                                     | -                                  | before 1 <sup>st</sup> spikelet of<br>inflorescence just visible stage<br>(GS 49) |
| spring barley    | 0.5  | 0.5                                     | -                                  | before 1 <sup>st</sup> spikelet of<br>inflorescence just visible stage<br>(GS 49) |
| winter rye       | 1.0  | 1.0                                     | -                                  | before 1 <sup>st</sup> spikelet of inflorescence just visible stage (GS 49)       |

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.

Cerone plant growth regulator reduces straw length and gives greater resistance to lodging and aids harvesting of winter and spring varieties of barley and winter varieties of wheat, rye and triticale. The full benefit of Cerone treatment will only be obtained on crops which have received adequate inputs (e.g. fertiliser and fungicides).

The best response to Cerone plant growth regulator is obtained when the crop is growing vigorously. Apply Cerone plant growth regulator before lodging has started. It is recommended that only crops grown under conditions of high fertility and, therefore, at risk from lodging, should be treated with Cerone plant growth regulator. Thin crops and particularly those on soils of low fertility are less likely to lodge, and in addition such crops of winter wheat may ripen prematurely.

#### **RESTRICTIONS**

Stress factors reduce crop growth and may also lead to secondary tillering and small grains. Cerone plant growth regulator if used under stress conditions may lead to these effects being more pronounced, particularly on spring barley.

Cereals can be susceptible to drought stress. Do not spray when the soil is very dry.

Do not use within 10 days of any herbicide or liquid fertilizer treatment.

Do not spray crops heavily diseased or suffering from pest damage, nutrient deficiency or herbicide stress.

Do not spray during cold weather or periods of night frost.

Do not spray where crop is wet or rain is imminent.

Avoid overlapping spray bouts.

Avoid drift of spray to adjoining crops.

### **CROP SPECIFIC INFORMATION**

Use on winter and spring varieties of barley and on winter varieties of wheat, rye and triticale.

**WINTER BARLEY:** Cerone can be applied to winter barley from the 'second node detectable' stage of crop growth (GS 32) up to and including the 'first awns just visible' stage (GS 49). The greatest resistance to lodging is achieved by treatment at the 'flag leaf just visible' stage of crop growth (GS 37).

**High Lodging Risk Crops**: For the greatest resistance to lodging use a sequential treatment of an approved formulation containing chlormequat followed by Cerone. Apply chlormequat according to manufacturers' label instructions followed by Cerone at 0.75 L/ha from the 'flag leaf just visible' stage of crop growth (GS 37) up to and including the 'first awns just visible' stage (GS 49). The optimum time for Cerone application is at the 'flag leaf just visible' stage of crop growth (GS 37).

Where the crop has not received prior treatment with chlormequat apply Cerone at 1.0 L/ha from the 'flag leaf just visible' stage of crop growth (GS 37) up to and including 'first awns just visible' stage (GS 49).

Cerone may also be applied from the second node detectable stage of crop growth (GS 32) but the optimum time for Cerone application is at the 'flag leaf just visible' stage (GS 37).

**Low Lodging Risk Crops**: Where lodging is not expected to be a severe problem, the crop may be treated with a sequential programme of an approved formulation containing chlormequat followed by a reduced rate of Cerone. Apply chlormequat according to manufacturers' label instructions followed by Cerone at 0.5 L/ha from the 'flag leaf just visible' stage of crop growth (GS 37) up to and including 'first awns just visible' stage (GS 49).



Where the crop has not received prior treatment with chlormequat apply Cerone at 0.75 L/ha from the 'flag leaf just visible' stage of crop growth (GS 37) up to and including the 'first awns just visible' stage (GS 49). The optimum time for Cerone application is at the 'flag leaf just visible' stage of crop growth (GS 37).

**WINTER WHEAT:** For the greatest resistance to lodging use a sequential programme of an approved chlormequat product followed by Cerone. Apply chlormequat according to manufacturers label instructions, followed by Cerone at 0.5 L/ha from the 'flag leaf just visible' stage of crop growth (GS 37) up to and including the 'boots swollen' stage (GS 45). Do not spray crops where the leaf sheaths have split and the ears are visible. Where the crop has not received prior treatment with chlormequat apply Cerone at 0.75 L/ha from the 'flag leaf just visible' stage of crop growth (GS 37) up to and including the 'boots swollen' stage (GS 45). Do not spray crops where the leaf sheaths have split and the ears are visible.

**WINTER TRITICALE:** Cerone may be applied at 1.0 L/ha from the 'flag leaf just visible' stage of crop growth (GS 37) up to and including the 'boots swollen' stage (GS 45). Do not spray crops where the leaf sheaths have split and the ears are visible. The best control of lodging will be given if the crop has received prior treatment with chlormequat at the recommended timing.

**WINTER RYE:** Apply Cerone at a maximum of 1.0 L/ha from the 'flag leaf just visible' stage of crop growth (GS 37) up to and including the 'first awns just visible' stage (GS 49). Crops of winter rye which have received prior treatment with approved chlormequat products may be treated with Cerone from the 'flag leaf just visible' stage (GS 37) up to and including the 'first awns just visible' stage (GS 49).

**SPRING BARLEY:** Apply Cerone at 0.5 L/ha from the 'second node detectable' stage of crop growth (GS 32) up to and including the 'first awns just visible' stage (GS 49).

Only crops which have been drilled early, have a high yield potential and are likely to suffer severe lodging should be treated with Cerone. Crops suffering from stress or likely to be stressed, for example due to soil conditions, should not be treated (see RESTRICTIONS section above) because undesirable side effects may occur, for example secondary (green) tillers, trapped heads, or shrivelled grains. Do not use on the variety Triumph.

### **Sprayer Application**

Apply through a conventional field crop sprayer using medium nozzles at a pressure of 2-3 bar. Good spray coverage is essential. Ensure the sprayer is correctly calibrated before use and adjusted to give adequate and even coverage of the top leaves. Spray immediately after mixing. Spray quality: Cerone plant growth regulator should be applied as a **MEDIUM** spray (BCPC category). Water volume: 200-400 L/ha.

Cerone may also be applied in a reduced water volume of 100 litres per hectare as a **FINE** spray (BCPC category) provided suitable spray nozzles are selected for this type of operation.

#### **MIXING**

Half fill the spray tank with clean water, add the required amount of Cerone and agitate during the completion of filling.

#### TANK CLEANING INSTRUCTIONS

After each days work, drain the sprayer, wash thoroughly with water and liquid detergent and spray out completely. Ensure that all liquid is removed from the sprayer tank, pump and hoses and ensure nozzles and nozzle filters are clean. Remove nozzles, open tank and drain pump to allow free access of air to all parts of the system.

(Acknowledgements & Trademarks etc)