

#### DIRECTIONS FOR USE

**IMPORTANT:** This information is approved as part of the Product Label. All instructions within this section should be read carefully in order to obtain safe and successful use of this product.

#### Warnings

Treated fruit may tend to be slightly more conical and elongated in shape and occasionally a slight reduction in return blossom can occur.

The use of spray additives is not required with Promalin®. Some spray additives have been shown to induce russetting.

Promalin® will reduce fruit russet caused by climatic factors during the first 30-40 days of fruit development. Promalin® will not reduce damage associated with russetting caused by insects, diseases and certain pesticides.

Consult processors before treating crops grown for processing.

#### Crop specific recommendations

Crops	Use directions	Dose (ml/100L water)	Water volume (L/ha)	Minimum interval between treatments
Apple	For fruit russet control and fruit sizing	25-50	500-1500 (Typically 1200)	7-12 days
Pear	For fruit set increase	25	500-1500 (Typically 1400)	2 days

On apple, use 25 to 50 ml product per 100 litres of water. Apply four times starting between full bloom and end of petal fall and continuing at 7-12 day intervals. Earlier applications and shorter intervals and the higher dose rate are recommended when russet conditions are severe (i.e. long cold wet periods during flowering).

On pear, use 25 ml product per 100 litres of water. Without frost, apply twice; the first application at the start of flowering, the second application between full bloom and petal fall with a minimum spray interval of 2 days.

In the case of frost damage between pink bud and petal fall; apply within 24 hours and repeat the application if another frost occurs.

Where tree height and/or canopy density is reduced, the dose (and water volume) should be adjusted in accordance with an appropriate dose adjustment scheme. Consult your specialist advisor for further information. Further information on the PACE scheme is available from HDC or see the HDC leaflet (Orchard Spraying: Opportunities to reduce rates) available on the CRD website at <http://www.pesticides.gov.uk/HDC.pdf>.

#### Application volume

Apply in sufficient water to provide good plant coverage without run-off.

For a standard orchard, 1200 l/ha at a concentration of 25-50 ml/100l is recommended for apple, and 1400 l/ha at a concentration of 25 ml/100l is recommended for pear. Do not leave spray liquid in the sprayer for long periods.



MAPP 18892

A soluble concentrate formulation containing 19 g/l gibberellins (GA4A7) and 19 g/l 6-benzyladenine

A plant growth regulator for fruit russet control and fruit size increase on apple, and fruit set increase on pear.

On apple, Promalin® greatly reduces fruit russet and improves fruit size, finish and quality. It is probable that Promalin® controls russet by increasing the elasticity of the outer fruit skin cells and prevents cell rupture when moisture is present.

On pear, it is probable that Promalin® increases fruit set by promoting parthenocarpic fruit development when natural fruit setting conditions are poor or when frost damage occurs.

#### PRODUCT BENEFITS

Promalin® increases average fruit size in apple and improves fruit set in pears.

IMPORTANT INFORMATION			
FOR USE ONLY AS A PROFESSIONAL PLANT GROWTH REGULATOR			
Crops	Maximum Individual Dose (ml product/ha)	Maximum Number of Treatments per crop	Latest Time of Application
Apple	750	4	Second fruit fall (GS73)
Pear	375	2	End of petal fall (GS67)

**Other specific restrictions:** Maximum concentration must not exceed:-  
**Apple:** 50ml product per 100 litres water, **Pear:** 25ml product per 100 litres water  
**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 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

Avoid breathing spray

In case of inadequate ventilation wear respiratory protection

##### 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

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

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



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Batch no:-

Production date:-

**Pack size: 0.5 L e**

**For 24 hour emergency information ONLY: call +44 (0)1235 239 670**

