

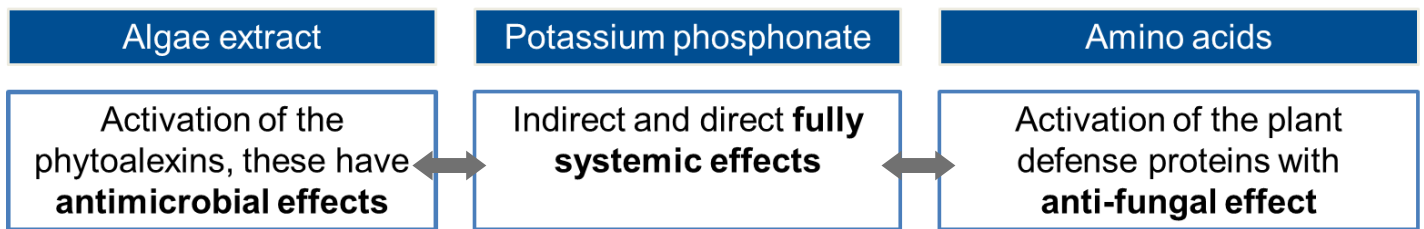


# FRUTOGARD®

## Preventative fungicide for use on table & wine grapes for downy mildew control

- UKs first approved fungicide with built in algae extract formulation - unique to Frutogard
- Triple action formula combines the benefit of **FRAC P07** and eliciting effect from algae extract
- Direct and indirect mode of action from potassium phosphonate
- Useful anti-resistance strategy in IPM programmes
- Reduced harvest interval - 24 days
- Extensive knowledge and experience from the continent (France & Germany)

### HOW IT WORKS - The triple vaccine for your vines

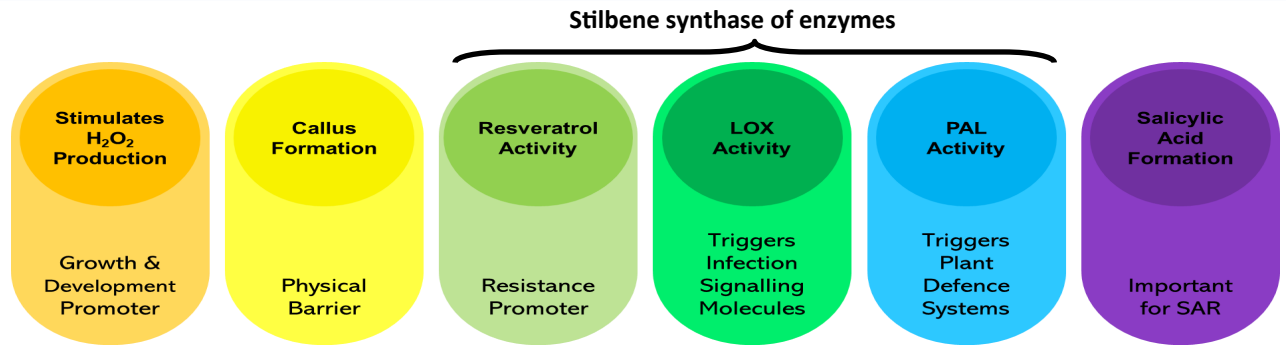


- Activation of multiple plant defense mechanisms before fungal pathogen attacks
- Reduces the **spread, growth** and **incidence** of infection
- Helps relieve abiotic and biotic stress
- The formation of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) provides additional growth promoting effects
- Only the **triple action formulation** triggers these complex plant defense mechanisms

<b>Formulation</b>	Suspension concentrate (SC) containing 342g/l potassium phosphonate and 370 g/L algae extract ( <i>Ascophyllum nodosum</i> )		
<b>Class</b>	FRAC Code Listing: P07 (U33)		
<b>Crops</b>	Table and wine grapes		
<b>No. of applications</b>	6 applications per year. Spray interval 7 days. Use in an integrated disease spray programme		
<b>Maximum individual dose</b>	4.5 L/ha (flexible dependant on growth stage)	<b>Harvest Period</b>	24 days
<b>Coverage (L/ha)</b>	150 - 1200 L/ha		
<b>Rain-fastness period</b>	Ideally 6 hours or more	<b>MAPP no.</b>	19105

USE PLANT PROTECTION PRODUCTS SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.  
For further information with regard to the warning phrases and symbols for these products please refer to the product labels.

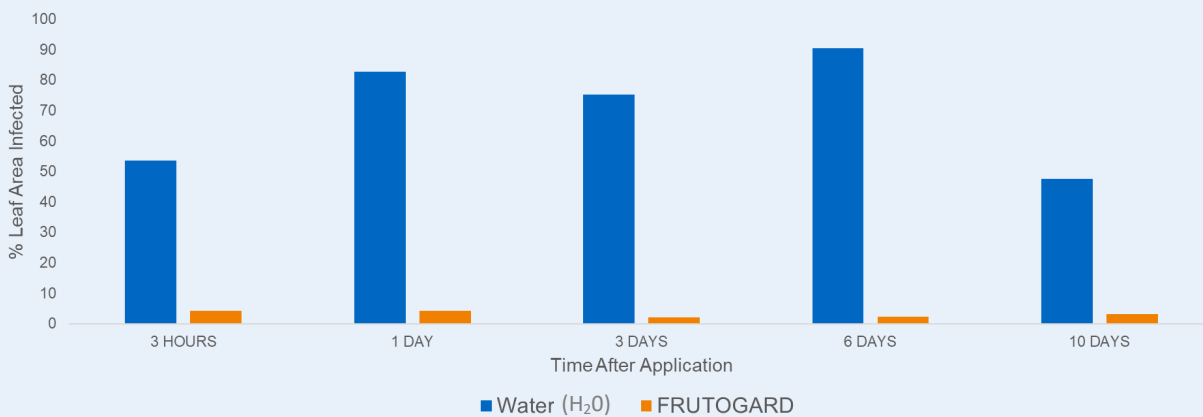
Frutogard® is a registered trademark of Certis Europe BV. Frutogard contains potassium phosphonate and algae extract. MAPP no. 19015  
Marketed by: Certis, 3 Riverside, Suite 5, Granta Park, Great Abington, Cambridge CB21 6AD. Tel: 0845 373 0305 www.certiseurope.co.uk Certis® 2020



### Plant defence responses activated by Frutogard®

- Physical Barrier - Formation of callus
- Production of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) - promoting growth
- Activation of enzymes through stilbene synthase - Resveratrol, LOX (lipoxygenase), PAL (Phenylalanin-ammonium-lyase)
- Activation of hormones - Important for Systemic Acquired Resistance (salicylic acid, jasmonic acid and ethylene)

### Duration of activity against Downy Mildew on Grape (*Plasmopara viticola*)



- Inoculation of plant after application
- **Frutogard** shows effect within 3 hours of application
- Lasting effect for up to 10 days after application

### Best Practice Application

- Application timings:
  - Before flowering: 1.5 l/ha in 150-400 l/ha
  - Start of flowering: 3 l/ha in 300-800 l/ha
  - End of flowering: 4.5 l/ha in 400-1200 l/ha
- Good crop coverage essential for efficacy
- Proactive early application from 2 leaves unfolded
- Do not tank mix with calcium products /divalent cations.
- Can be used with urea products
- Apply solution immediately - do not leave overnight!
- Disease planning and monitoring is essential

Read more about Certis vine solutions in the Vine Growers Product Guide.

Speak to one of our Technical Specialists on 0845 373 0305.

