

SIRIUS

ENHANCING PEST RESILIENCE OF CROPS WITH SILICON

Silicon is the second most abundant element on the planet, however it is only bioavailable to plants in its **monosilicic** form. **Sirius** uses our enhanced **iNHIB™ technology** to provide a source of available silicon to crops, helping to mitigate plant stress.

SIRIUS IS PROVEN TO...

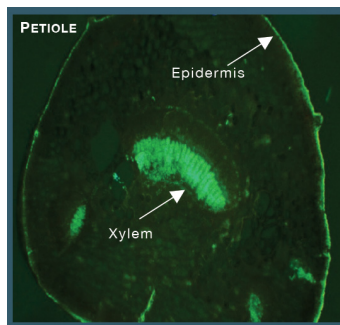
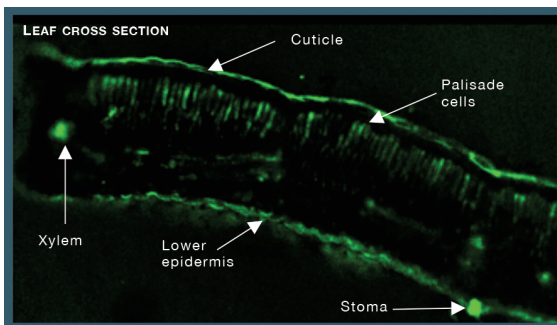


- **Increase cuticle thickness**
 - Enhancing resilience to pest & disease attack
- **Strengthen cell walls and cell adhesion**
 - Reinforcing plant strength
- **Act as a physical insecticide**
 - Providing instant contact efficacy

The bioactive **monosilicic acid** in **Sirius** is immediately available to the crop. University investigations have shown the areas of silicon accumulation within leaf and petiole cells, thus **enhancing** the plants **natural defences**.

FLUORESCENT DYE HIGHLIGHTING SILICON ACCUMULATION IN LEAVES AND PETIOLE'S

Applications of Sirius result in an increase in cuticle thickness, alongside increased density, length and strength of leaf hairs, This accumulation enhances the plants natural armour providing the first line of defence against pest and diseases.



PHOTOS COURTESY OF THE UNIVERSITY OF HERTFORDSHIRE FOLLOWING APPLICATIONS OF SIRIUS

Sirius is also highly effective as a physical acting insecticide on pests such as mites, aphids, thrips and whitefly. This gives the product a **unique dual action**, with **immediate knockdown** of the pest, **plus enhancement of the plants natural resilience** to further attack.



ORION
RELEASING THE BIOLOGICAL POTENTIAL OF PLANTS



@OrionFutureTech
www.orionft.com

FOR PROFESSIONALS ONLY: USE FERTILISER PRODUCTS WITH CAUTION. READ THE LABEL AND INFORMATION RELATING TO THE PRODUCT BEFORE USE.

Follow the instructions for use in order to avoid risks to human health and the environment - Do not pollute water with the product or its packaging. Sirius holds CRD exemption to allow recommendations for use as a physical acting insecticide.

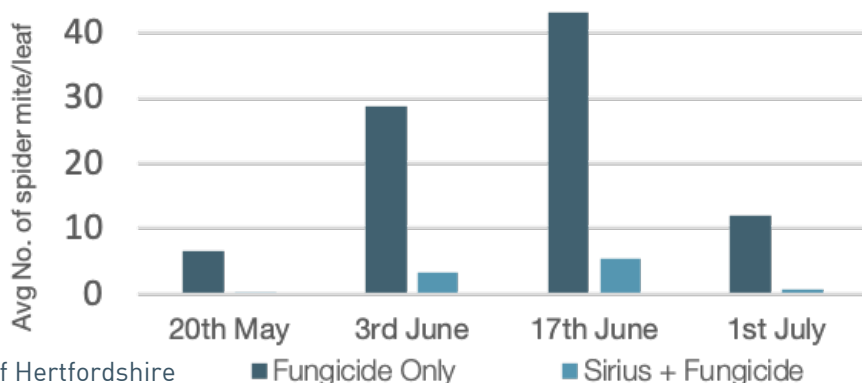


SIRIUS

ENHANCING PEST RESILIENCE OF CROPS WITH SILICON

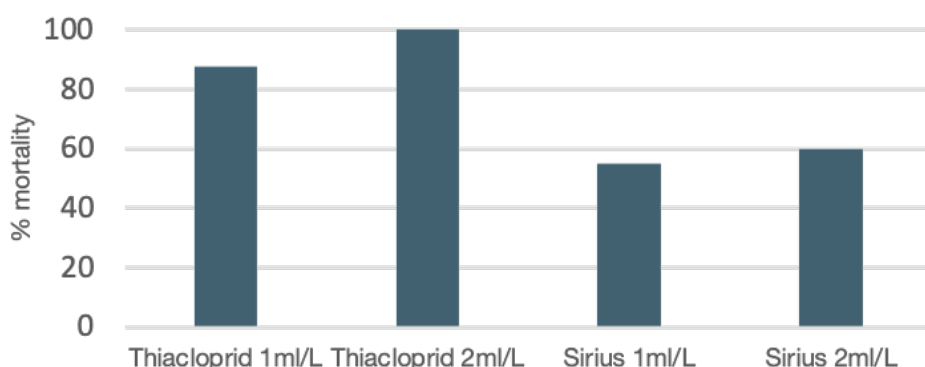
MANAGING SPIDER MITE POPULATIONS WITH SILICON

In strawberry trials conducted by the University of Hertfordshire, the incidence of spider mite per leaf was significantly reduced in Sirius treated plots. This demonstrates the benefit of enhancing a plants natural resilience to manage pest species.



Source: The University of Hertfordshire

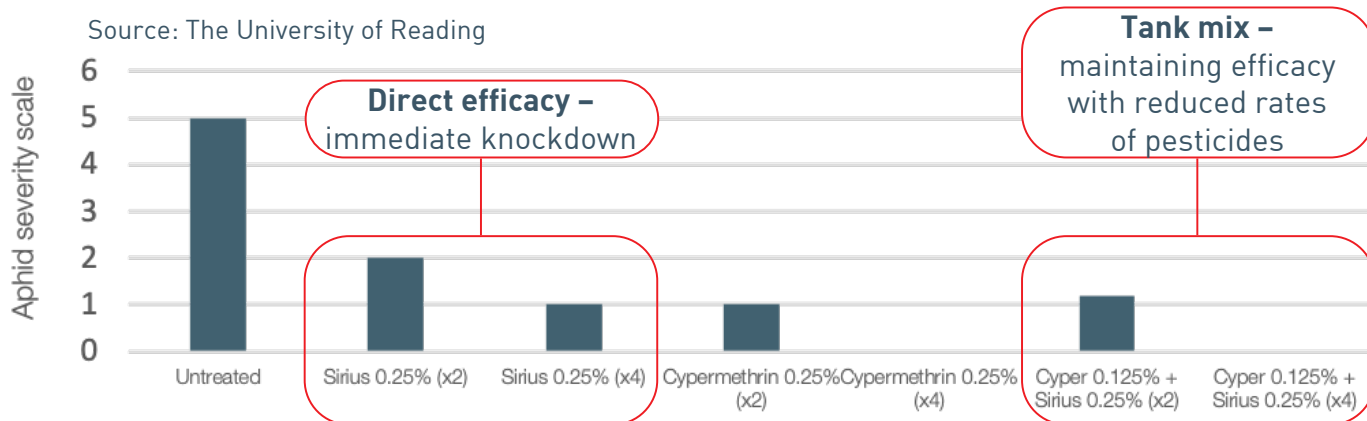
MORTALITY OF ADULT DROSOPHILA SUZUKII FOLLOWING DIRECT APPLICATION



Sirius is effective as a physical acting insecticide, providing direct control of a range of pest. University of Reading trials demonstrated 60% mortality on spotted winged drosophila.

Source: The University of Reading

REDUCING POPULATIONS OF APHIDS FOLLOWING DIRECT APPLICATION



Trials investigating direct application to aphids have shown Sirius to significantly reduce population numbers. In addition, research has shown that efficacy is maintained when Sirius is applied as a combined application with a reduced dose of a standard chemical. This allows growers to reduce their pesticide inputs, whilst maintaining efficacy.

Product	Pack Size	Silicon Content (%)	Dilution (%)	Water Volume (L/Ha)
Sirius	1L 5L	21	0.25	200-1000L

