LALSTIM OSMO

The biostimulant LALSTIM® OSMO protected the strawberry flowers from frost injuries and improved the yield potential in low temperatures during early season.

CONTEXT

Strawberry plants are exposed to variable stress factors especially in early season. These include frost and low temperatures, which can cause damage on strawberry flowers and decrease the yield potential .

LALSTIM OSMO contains glycine betaine, an osmolyte naturally enhancing stress tolerance in plants. Glycine betaine is absorbed quickly by the plants, where it maintains the water balance and the normal activity of plant cells during environmental stresses. It also improves the circulatory flow of nutrients in the plant. LALSTIM OSMO is also suitable for organic production.

OBJECTIVE

To study the effect of LALSTIM OSMO in frost protection and yield potential of strawberry during early season stress conditions in commercial tunnel production.

MATERIALS AND METHODS

LOCATION AND DATE
Commercial strawberry production, Finland
April-June /2021

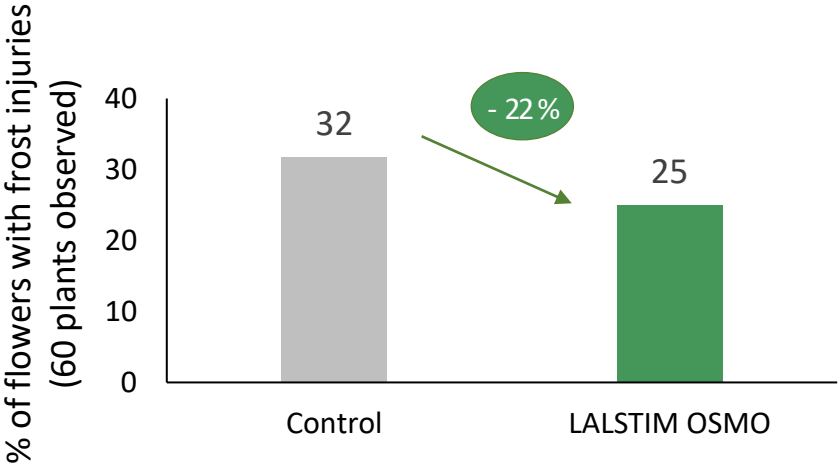
CULTIVARS
'Malling Centenary" A++ frigo plants

CULTIVATION AND SUBSTRATE
Frigo plants were planted in boxes filled with coco-based substrate in mid April. Plants were kept outside and covered with douple fleece. Plants were transferred to tunnel in mid May. Drip irrigation, 4 drippers/box of 10 plants.

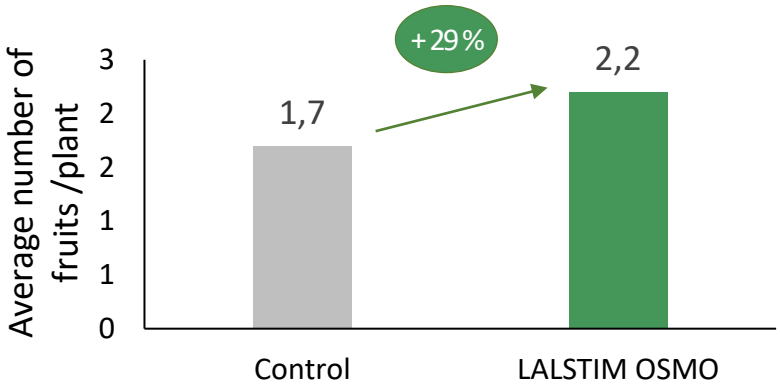
TREATMENTS
1) Untreated control
2) LALSTIM OSMO spraying (6 g/1 liter water). First spray application before frost on 7th May. Second spray application 3 weeks later on 29th May.

LALSTIM OSMO

- **LALSTIM OSMO decreased the number of flowers with frost injuries. Observations May 11th, after night frost -3 °C.**



- **LALSTIM OSMO increased the development of strawberry fruits in early season. Number of fruits calculated May 27th**



- **LALSTIM OSMO increased the chlorophyll content and photosynthetic activity of the plants during stress conditions. Dualex readings made from the leaves May 11th. Average results based on 300 readings per treatment.**