

The use of PRESTOP® and LALSTIM® OSMO on hydrangea as a biological program promoted the development of flowers and improved the condition of the root system. In addition, chlorotic symptoms in hydrangea leaves were reduced.



CONTEXT

In hydrangea, pathogens of the root system and measures during cultivation, such as aluminum sulfate treatment, stress the root system and weaken the formation of new roots. Leaf chlorosis and other physiological symptoms reduce the quality of certain varieties.

PRESTOP® contains the fungus *Clonostachys rosea* J1446, which has a wide-ranging and long-term control effect against root diseases such as *Pythium*, *Phytophthora* and *Fusarium*. In addition, Prestop repels gray mold when sprayed on the foliage.

LALSTIM® OSMO contains glycine betaine, which is a natural osmolyte that increases stress resistance in plants. It maintains the water balance of plant cells and promotes the circulation of nutrients such as calcium in the plant.

OBJECTIVE

In the cultivation experiment, the aim was to promote the quality of the hydrangea and the condition of the root system with the products PRESTOP and LALSTIM OSMO as a treatment program.

MATERIALS AND METHODS



LOCATION AND DATE

Martin Tarha Oy, Finland
Weeks 9-18/2023



CULTIVARS

'Lavblaa Blue' and 'Sneeuwbal'. Pot size 14cm.



CULTIVATION

Irrigation and basic fertilization were given as under irrigation. Wuxal-foliar fertilizer, growth regulator B-nine. Aluminum sulfate treatment of the 'Lavblaa Blue' variety in week 9.



TREATMENTS

1) Untreated control.

2) **PRESTOP + LALSTIM OSMO** as a biological program:

- **PRESTOP** top watering with a 0.5% mixture so that the shoots get wet and 100-200 ml of the preparation is absorbed into the root system. Treatment as soon as the plants arrive.
- **LALSTIM OSMO** (6 g/1 liter of water). First treatment 2 weeks after the plants arrive. Subsequent sprayings every 7-10 days. Lalstim Osmo can be sprayed in the same mixture with foliar fertilizers.

- The formation of the new root system progressed in both cultivars. The root system of the "Lavblaa Blue" variety showed a small amount of Fusarium fungus.

Prestop + Lalstim Osmo, "Lavblaa Blue"

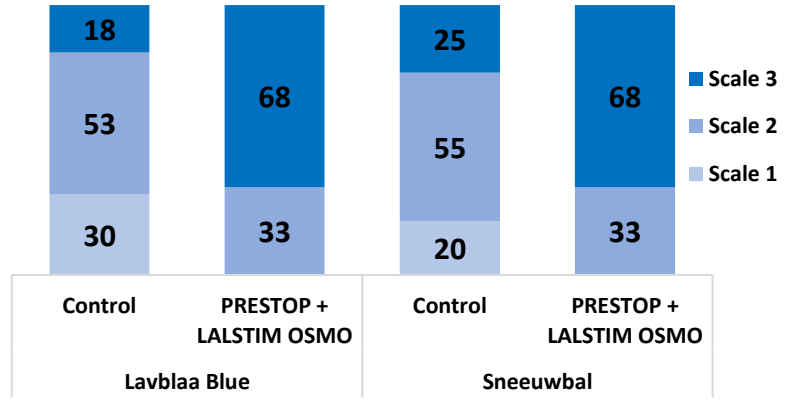


Control, "Lavblaa Blue"

The formation of the new roots
Scale 1-3

(3=very good roots)

(Observations 40 plants/member/variety)

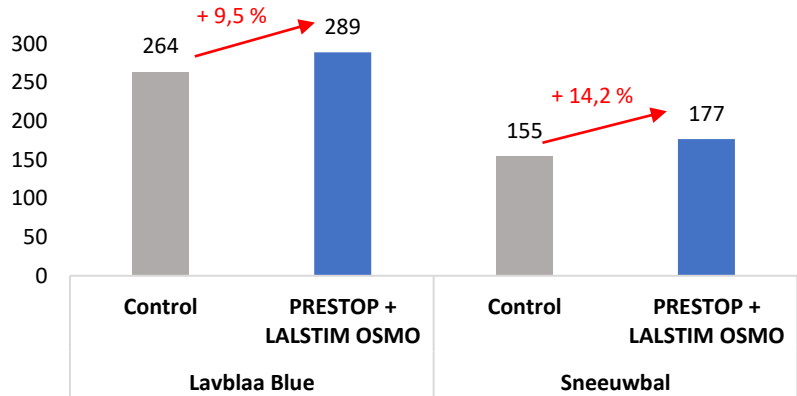


- The biological program accelerated the development of buds



The number of opening flowers

40 plants/member/variety



- The biological program reduced the chlorotic leaf symptoms of the 'Sneeuwbal' variety.



Controll



Prestop + Lalstim Osmo

'Sneeuwbal' proportion of chlorotic plants (%)

40 plants/member

