

LALSTIM OSMO



WETTABLE POWDER

Improvement of yield and quality of greenhouse vegetables

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. LALSTIM® OSMO increases the capacity of greenhouse vegetables to produce yield during unfavorable temperature, light and moisture conditions, and prevents the occurrence of physiological disorders in the yield, including blossom-end rot and cracking.

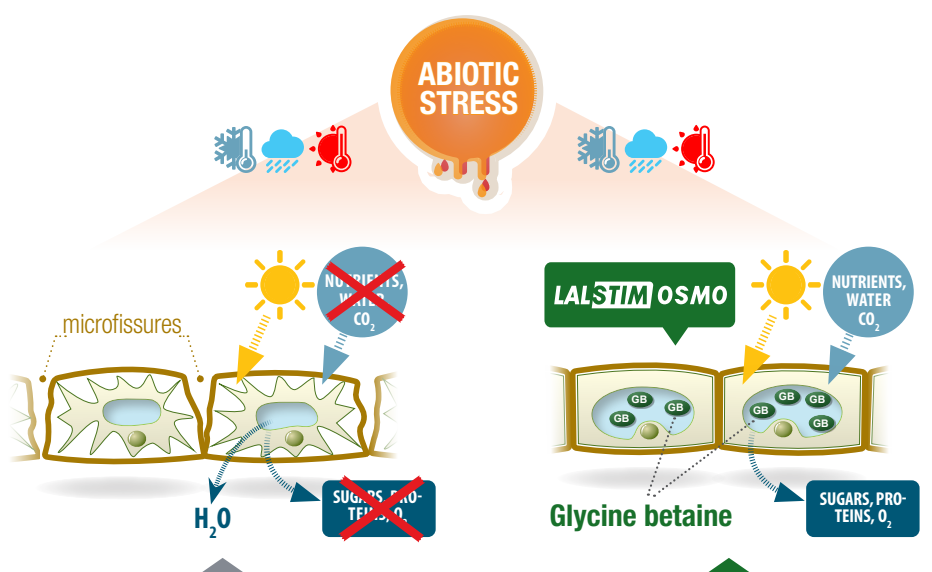
MODES OF ACTION

LALSTIM® OSMO protects the normal physiological activity of plant cells during stress conditions:

- Maintains water balance and prevents cell damage.
- Enhances photosynthesis.
- Improves the circulatory flow of water and nutrients, especially calcium and other trace elements.

BENEFITS

- Improves the yield production capacity during stress conditions
- Prevents cracking and blossom-end rot of tomato fruits
- Improves the stress tolerance of seedlings and the vitality of plants



During stress conditions, cell metabolism slows down, microfissures appear between cells and water is lost from the cell.

With the help of glycine betaine, normal cell metabolism and water balance are maintained.

ADVANTAGES

- Absorbed within 24 h
- Circulates systemically throughout the plant
- Active for 3 weeks
- A protective compound naturally occurring in plants

APPLICATIONS

CROP	TARGET	DOSE	APPLICATION TIMINGS	APPLICATION METHOD
Greenhouse tomato, cucumber and bell pepper	Increasing growth and yield during unfavorable conditions and improving quality of yield.	2–3 kg/ha	Application at latest 24 h before stress conditions. Repeat every 3 weeks.	Foliar spraying: spray plants evenly moist. Water amount: 400–1000 l/ha. Application through drip irrigation possible in rockwool substrate.
	Improving stress tolerance and vitality of seedlings.	6 g/l	At latest 24 h before stress conditions. Repeat every 3 weeks.	Foliar spraying: spray seedlings evenly moist.

- **Compatibility:** can be sprayed together with insecticides, fungicides and foliar fertilizers, except for formulations containing copper.
- Also compatible with the biological fungicides Prestop and Mycostop.
- The maximum concentration of the spraying solution: 30 g/litre

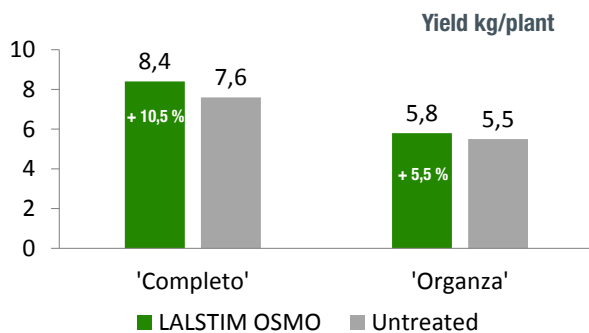
CHARACTERISTICS

- **COMPOSITION:** purified and crystallized glycine betaine from plant origin (97 %)
- **FORMULATION:** wettable powder
- **PACKAGING:** 2 kg
- **STORAGE:** 24 months at room temperature in an unopened package
- **Suitable for organic agriculture**

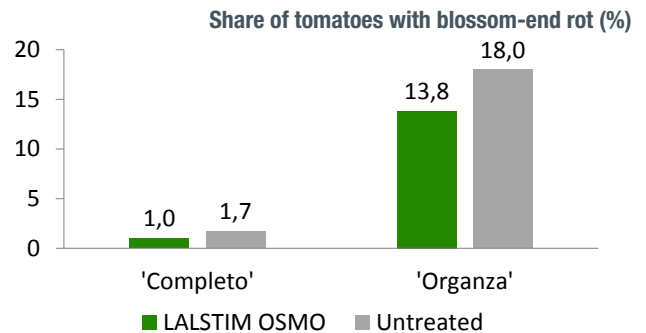
RESULTS

Increasing yield and preventing blossom-end rot

Greenhouse trial on tomato. LALSTIM OSMO spraying repeated every 3 weeks increased the marketable yield of tomato during the trial period (May–September).

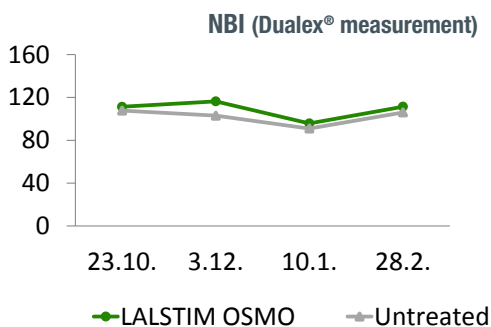


Greenhouse trial on tomato. LALSTIM OSMO spraying repeated every 3 weeks reduced the incidence of tomato blossom-end rot during the trial period (May–September).



Improving growth and reducing stress

Wintertime greenhouse trial on tomato ('Sassari'). LALSTIM OSMO application via drip irrigation every 3 weeks improved the NBI (Nitrogen Balance Index), indicating enhanced chlorophyll production and photosynthetic activity.



Wintertime greenhouse trial on tomato ('Sassari'). LALSTIM OSMO application via drip irrigation every 3 weeks decreased the flavonol content – an indicator of the stress level of plants.

