

# LALSTIM OSMO

## Improvement of yield and quality of open field 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 open field vegetables to produce yield during unfavourable temperature, light and moisture conditions, and prevents the occurrence of physiological disorders in the yield, including tipburn symptoms on lettuce.



WETTABLE POWDER

### MODES OF ACTION

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

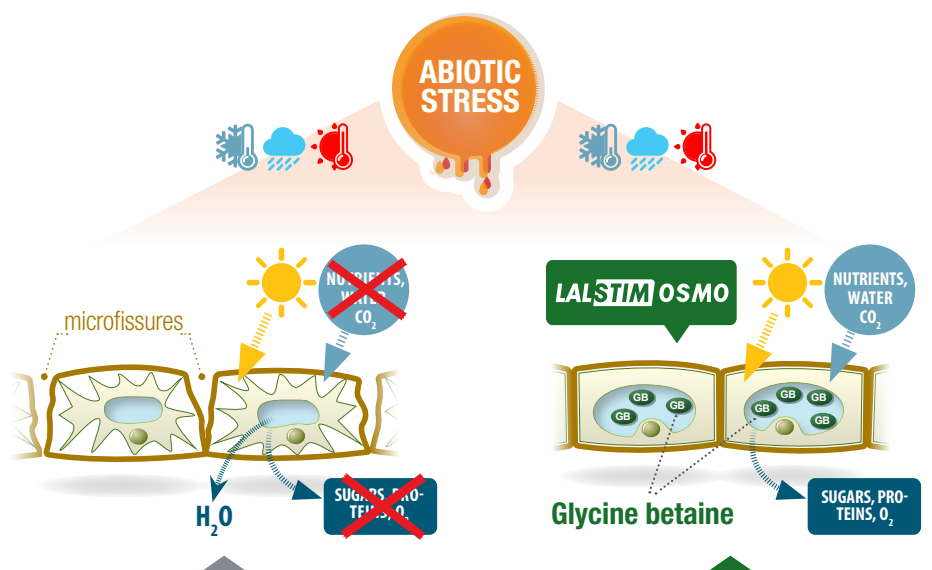
- Maintains water balance and prevents cell damage.
- Enhances photosynthesis.
- Improves the circulatory flow of water and nutrients, especially calcium and other trace elements.

### BENEFITS

- Reduces planting stress
- Improves cold tolerance of open field early vegetables
- Improves the yield production capacity during stress conditions
- Reduces tipburn symptoms on leaf vegetables

### ADVANTAGES

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

## APPLICATIONS

CROP	TARGET	DOSE	APPLICATION TIMINGS	APPLICATION METHOD
Open field vegetables and herbs	Improving stress tolerance of seedlings.	6 g/l	At latest 24h before stress conditions. Repeated every 3 weeks if necessary.	Foliar spraying: Spray the seedlings evenly moist.
	Improving stress tolerance after planting.	2–4 kg/ha		Foliar spraying: Spray plants evenly moist. Water amount: 400–1000 l/ha.
Open field leaf vegetables	Reducing tipburn symptoms.	2 kg/ha	At 3–4 leaf stage, repeat every 1–3 weeks.	

- **Compatibility:** can be sprayed together with fungicides, insecticides and foliar fertilizers, except for formulations containing copper.
- Also compatible with the biological fungicide Prestop.
- The maximum concentration of the spraying solution: 30 g/litre
- The use of adjuvant/wetting agent in open field is recommended.
- The best conditions for spraying application are during windless and rainless weather, when the relative humidity is high.

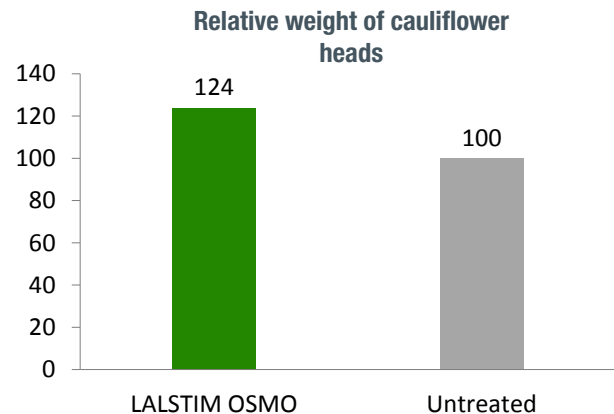
## CHARACTERISTICS

- **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 of cauliflower exposed to drought and cold stress

LALSTIM OSMO spraying applied at seedling stage increased the yield of early cauliflower. Cauliflowers exposed to drought and cold stress after planting in open field.



### Increasing yield and reducing tipburn symptoms on open field iceberg lettuce

Two LALSTIM OSMO applications done with a one-week interval reduced the occurrence of tipburn and increased the yield on iceberg lettuce ('Ice Wave'). The first application was done in June, 24h prior to a heat wave, and the second application was done one week prior to harvest. The dose rate was 2 kg/ha. The observations were made on the harvest day in July.

