

Reducing stress



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What are biostimulants

A plant biostimulant is any substance that will enhance nutrition efficiency, abiotic stress tolerance and/or crop quality traits

Could be for instance improvement of phosphate uptake

We will focus on stress reduction

- Night frost
- Fruit set
- Abortion of fruits



Frost during the night

Not a big issue in the Netherlands since flowering is late

However could be an issue in Poland, Baltic states, Germany

In several fruit crops (apple, pear etc.) people apply StressImmune (cold extract seaweed *Ascophyllum nodosum*) + amino acids (nutrition)



Should be applied before stress occurs

Activates genes within the plant (increasing jasmine and salicyl acid)

Osmotic value

1-3 liter/ha (repeated after 10 days)

Foliar application of potassium ?? 5 kg dissolved in 200 liter water/ha



Fruit set/fruit abortion

Fruit set requires a lot of energy from the plant, same at fruit growth → abortion

Biostimulants can directly provide nutrition for the plants as amino-acids

- Stressimmune (aminoacids)
- Aminosol, Aminoplant, **Aminoboost** (also Fulvic Acid, influences root development)
- Algaforce (seaweed extract, nutrients, **mannitol**)





Mildew, organic growers

Silicium:

- cell wall
- activates the plant

At the begin of flowering

SilicaTop 0.25-0.8 l/ha, 10-14 days till final size



Silicium

