

Lumidapt™

GROWTH NUTRITION SEED TREATMENT

A new Growth Nutrition Seed Treatment for corn, sunflower and oilseed rape.



OVERVIEW

A new type of organo-mineral fertilizer, engineered to enhance plant's metabolic activity, physiology and stress mitigation in a proactive manner.



MODE OF ACTION

Product details

- Organic acid molecular level complex with bonded nutrients.
- Chelated nutrients
- Highly concentrated

Impact inside the seed

- LUMIDAPT penetrates seed's coat, which leads to enhanced germination:
 - Nutrient optimization.
 - Enhanced radicle and root meristem development.
- Absorption of LUMIDAPT leads to an increased rate of nutrient and water absorption by the seed.
- Stress alleviation:
 - Antioxidant activity; mitigation of oxidative stress.

Impact in soil contact with seed

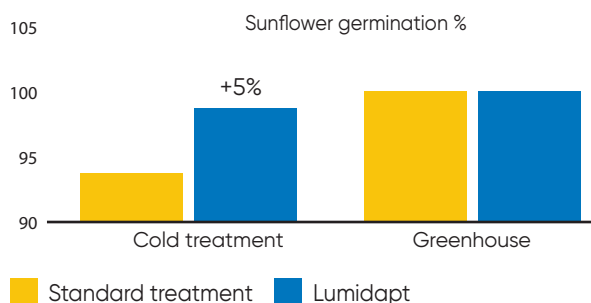
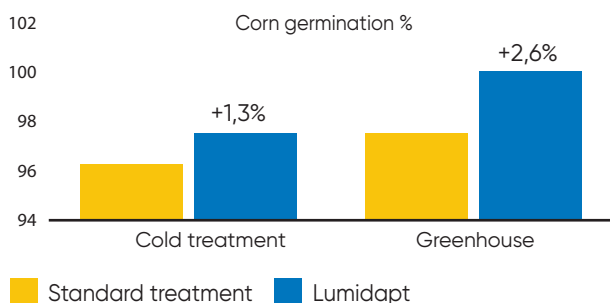
- Increased microorganism activity via the introduction of available carbon and nutrients. Prolonged lifespan of beneficial bacteria.
- Improvement of local soil quality and properties around the seed:
 - pH; stabilization to both acid and alkaline direction.
 - Water retention; humic substances in LUMIDAPT can retain approximately seven times its volume in water.
 - Stabilisation against changes.

Combination with agrochemicals

- LUMIDAPT has an adhesive effect, which aids the absorption of other agrochemicals.
- LUMIDAPT enhances optimized chemical stress tolerance in plants.
- Excellent seed safety properties.

CORN

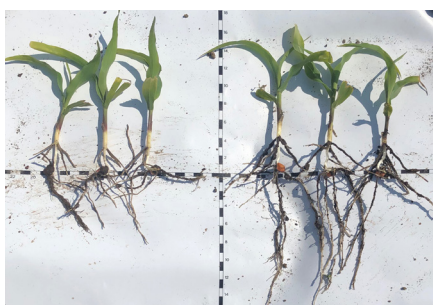
SUNFLOWER



Laboratory and greenhouse, ECRI, Estonia 2019

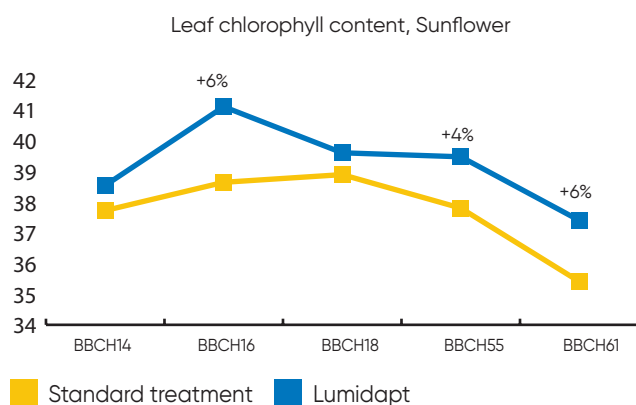
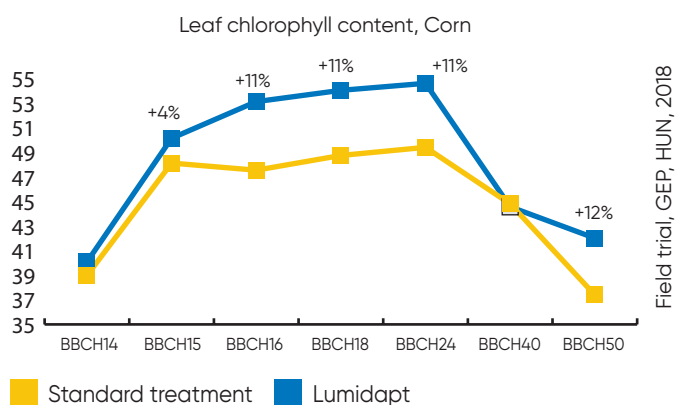
FASTER GERMINATION AND EMERGENCE

- Higher vigor, even in cool conditions.
- Advanced growth.
- More uniform plant establishment.



ENHANCED ROOT DEVELOPMENT

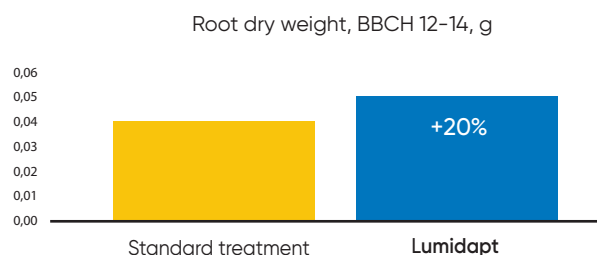
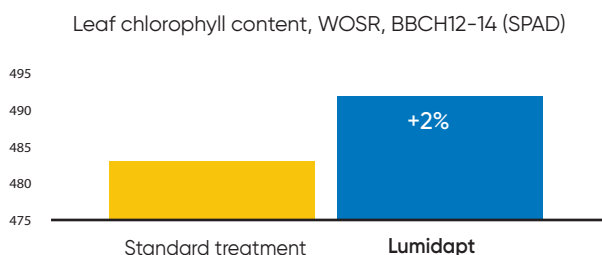
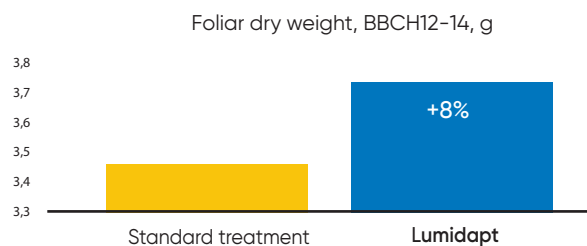
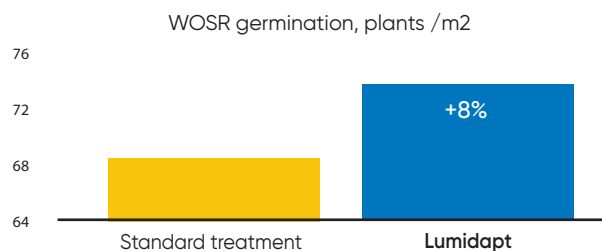
- Longer roots.
- Higher number and more uniform distribution of lateral roots.
- Advanced nodal root growth
- Higher number of root hair.



ENERGY EFFICIENCY

- Optimized nutrient availability
- Enhanced nutritional balance.
- Increased photosynthetic activity.
- Optimized stress tolerance.
- Reduced chemical stress.
- Improved resistance to some drought situations.
- Secure hybrid yield potential.

WINTER OILSEED RAPE



Plant establishment in small plot trials in Estonia, autumn 2018

Autumn 2018



Standard treatment Lumidapt

Spring 2019



Standard treatment Lumidapt

LUMIDAPT PROMOTES PLANT GROWTH

- Stronger root system in autumn= better winter survival
- More robust plants in spring means deeper root system = better nutrition and faster growth
- Enhanced shoot formation
- Higher number of pods
- Secure hybrid yield potential



CORTEVA™ AGRISCIENCE has an exclusive distribution agreement for LUMIDAPT®.