

CeraMax[®]

A NEW BIOLOGICAL LINE OF DEFENSE AGAINST SUDDEN DEATH SYNDROME

CeraMax[®] is a new biological seed treatment for the prevention of soilborne fungal diseases including *Fusarium virguliforme*, the causal agent of Sudden Death Syndrome (SDS) in soybeans.

Containing the active ingredient Natamycin, CeraMax empowers the genetic potential of soybean seeds to increase early-season vigor for a stronger, more uniform emergence and maximum yield potential.

Data-Driven Results

In multi-year research trials across 10 states, soybeans treated with the addition of CeraMax to Acceleron[®] Standard* showed significantly lower SDS disease incidence with an average yield increase of 4.3 bushels per acre compared to Acceleron Standard used alone.

PROVEN PERFORMANCE

over **150** field trials
 10 states
 4 years
 (2017-2020)

SOYBEAN YIELD IMPACT

Acceleron[®] Standard + CeraMax
 increased yield by **4.3** bu/A
 In comparison to Acceleron Standard alone

Performance Benefits

- Powerful protection against SDS without constraints
- Efficacy against a broader range of fungus diseases
- Top seed safety profile for germination and stand protection
- No phytotoxic seedling stress of the Halo Effect
- Compatible with other seed treatments and inoculants
- No time restrictions between treatment and use

New Era in Plant Health

As a next-generation solution for improved plant health, CeraMax provide a new option for the prevention of SDS versus synthetic seed treatment brands like ILEVO[®] and Saltro[®].

Offering maximum value and protection, CeraMax gives soybeans the early advantage they need to emerge consistently, grow successfully and take on the agronomic challenges of the season.

* Acceleron Standard is a reference to ACCELERON[®] SEED APPLIED SOLUTIONS.

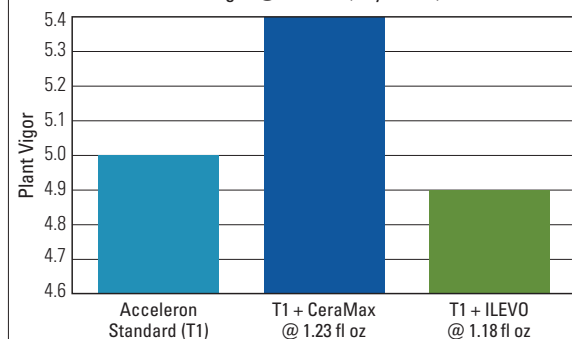
Product Specifications

Active Ingredient	Natamycin
Category	Fungicide / Seed Treatment
Crops	corn / soybeans / wheat
Site of Action	Group 48 / Ergosterol binding
Formulation	Suspension concentrate
AI/Gallon	1.25 lbs of AI/gallon
Signal Word	Caution

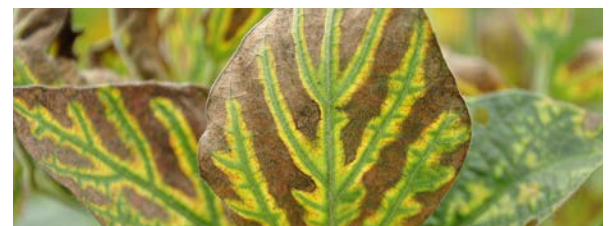
Better Plant Vigor

CeraMax shows improved plant vigor versus ILEVO with no signs of phytotoxic stress on cotyledons.

CeraMax vs ILEVO Plant Vigor @ 28 DAP (soybeans)



2019 AgriThORITY T7 & F10. IA, IL, IN, MI, MN, MO, NE, OH, WI. 15 field trials. 28 days after planting. Evaluation scale: 1-9. CeraMax rate in fl oz per 140,000 seeds. Avicta[®] added to all CeraMax seed treatments.



SDS has become one of the leading soybean diseases in North America, resulting in yield losses as high as 50 percent per incident.





CeraMax[®]

Biological Seed Treatment

Phytotoxic Effect on Soybeans

In side-by-side trials, CeraMax-treated seed showed no phytotoxic stress on seedlings. ILEVO-treated seed showed Halo Effect and necrosis on the majority of seedlings in all plots.



CeraMax



ILEVO

CeraMax @ 1.23 fl oz + Avicta + commercial seed treatment

ILEVO @ 1.18 fl oz + commercial seed treatment

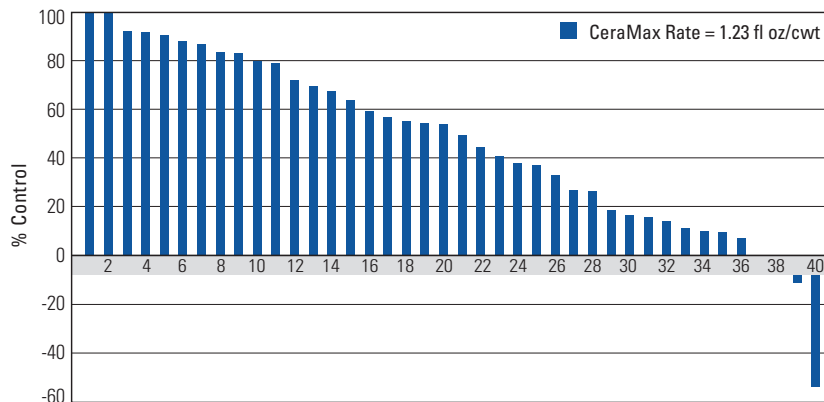
2019 AgriThority F8. IA, IL, IN, MI, MN, MO, NE, OH, WI. 15 field trials. CeraMax rate in fl oz per 140,000 seeds. Avicta added to all CeraMax seed treatments. In heavy disease pressure areas, CeraMax can be used up to 2.46 fl oz per cwt.

Better SDS Control

Soybeans treated with Acceleron Standard + CeraMax resulted in lower SDS incidence compared to Acceleron Standard across all SDS disease classifications.

Acceleron Standard + CeraMax vs Acceleron Standard alone

% Sudden Death Syndrome Control (soybeans)



In field trials where CeraMax was used in combination with Acceleron Standard, better SDS control was obtained in 91% of the cases vs Acceleron Standard alone.

Treatment	SDS Control (%)	Win (%) vs Acceleron Standard
Acceleron Standard + CeraMax	46.8%	95.0%
Acceleron Standard + ILEVO*	39.5%	77.5%

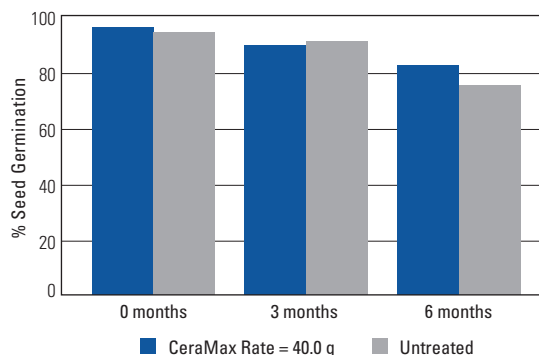
2019 AgriThority T8 & F13. IA, IL, IN, MI, MN, MO, NE, OH, WI. 44 test plots at 11 locations. Avicta added to all CeraMax seed treatments. *ILEVO data not shown in above chart. In heavy disease pressure areas, CeraMax can be used up to 2.46 fl oz per cwt.

Better Seed Safety

CeraMax shows no negative impact on seed germination even at the highest allowable dose rate.

CeraMax vs Untreated

% Seed Germination (soybeans)



Stress test at cold and warm temperature shows similar results.

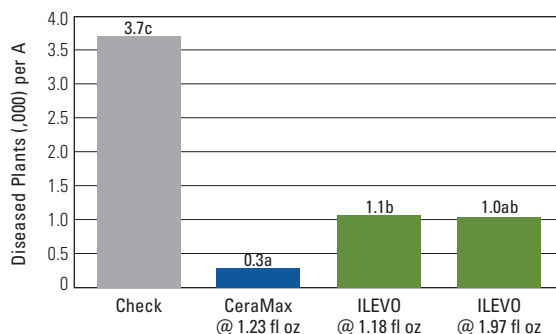
2017 SGS. Brookings SD. Replicated trial averages from 6 month seed safety and germination study. CeraMax rate at 40 grams active ingredient per 100 kg seed.

Better Fungal Disease Control

CeraMax shows improved control versus ILEVO for *Rhizoctonia spp* seedling disease.

CeraMax vs ILEVO

Rhizoctonia Control @ 28 DAP (soybeans)



2019. Iowa State University. Ames IA. CeraMax rate in fl oz per 140,000 seeds. In heavy disease pressure areas, CeraMax can be used up to 2.46 fl oz per cwt.

Ceradis B.V. is a developer and marketer of environmentally-friendly technologies for the plant nutrition and crop protection industries. Its proprietary portfolio includes patented biological formulation additives that boost the efficacy of existing agrochemical products, resulting in reduced rates of active ingredients used per acre with lower residues on crops. Ceradis also develops biofungicides based on macro-organisms or natural products. Ceradis products are thoroughly evaluated and field tested to ensure superior performance for optimal agricultural use. **To learn more, visit ceradis.com.**



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