



EVERY SEED DESERVES THEIR BEST BEGINNING!

**Bioavailable chitosan-based
seed treatment**

Apply to Naked Seeds

Best applied to untreated naked seeds, but can be applied in-furrow to naked or pre-treated seeds.

Improve Germination Rates

Once in the seed, principle active ingredients coats the surface of the endosperm, specifically the aleurone layer. This coating allows water to come inside but will not allow it out. This critical modality reduces drying out, thus increasing germination.

Application/Coating

OmniCoat can be applied to naked seeds with a light coating/misting. One pint per acre is recommended when applied in-furrow to naked or pre-treated seeds.

Cost

Application cost for OmniCoat is significantly less and more effective than current treatments.

Seed Germination Safety

OmniCoat is non-toxic to the seed and does not cause a decrease in germination between treatment and actual seeding (even during storage). OmniCoat shrinkwraps the endosperm which enables the seed to imbibe essential nutrients to grow better from the start!



Made in U.S.A.

Available in:
5 Gallon Case
(2 x 2.5 Gallon Jugs
or 275 gal totes)

OmniCoat is a proprietary seed treatment featuring several highly effective functioning agents. These combined agents provide a coating that moves transdermally through the seed layers to protect the endosperm. Additionally, the coating prevents the seed from drying out. This unique combination provides a shield of protection against listed pathogens and pests by naturally stimulating the plant's defense mechanisms. OmniCoat gives your plants a germination jumpstart and the protection to develop into healthy seedlings from the beginning!

Benefits of using OmniCoat include:

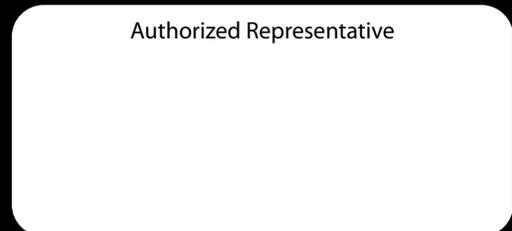
- INCREASES germination rates
- PREVENTS reverse osmosis (water moving out of seed until germination)
- IMPROVES seed vitality
- IMPROVES sprouting efficiency and vigor
- PROMOTES stronger emergence
- ACTIVATES innate immunity within the plant (from germination outset)
- PROMOTES the ability of plants to defend against future pathogens and pests
- And MORE...visit our website for the full list of benefits!

Best Beginnings BEGIN with CHITOSAN!



EPA Reg No.: 92032-1
EPA Establishment No.: 91888-LA-2
Not for sale (or use) in California

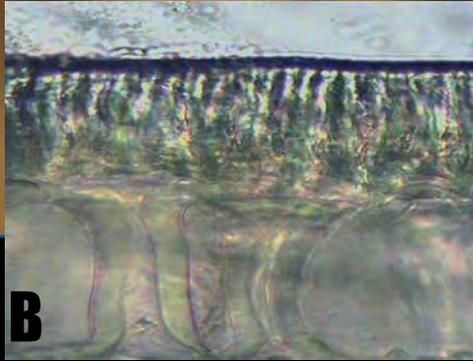
Authorized Representative



The field trial results indicated that chitosan coating protected soybean plant against pests efficiently.



A
Membrane treated (A) and untreated (B).



C
Germination treated (A) and untreated (B).



Research Article:

Application of Bioactive Coatings Based on Chitosan for Soybean Seed Protection

The Mechanism of Antifeedant Effect. Our research indicated that chitosan acted as a seed-coating agent to control *Agrotis ipsilon*, soybean pod borer and soybean aphid effectively. Chitosan stimulates plants to produce systematic antibodies, which can produce repellent effects to deter insect pests. In addition, chitosan with natural antifungal property can produce significant repellent action to crop pests.

The Mechanism of the Yield Increase Effect. The membrane photos clearly show that the face of seed coated with chitosan (a) forms a layer of chunky membrane, but the (b) not coated does not. Chitosan has excellent film-forming property, making it easy to form a semipermeable film on the seed surface which can maintain the seed moisture and absorb the soil moisture, and thus it can promote seed germination.

In contrast, it can cut off excessive soil moisture to prevent the seed from corrupting. Furthermore, chitosan film is also considered to have a good selective permeability, which can prevent oxygen from entering the film, restrict loss of CO₂, and maintain a high concentration of CO₂ in the film, so as to restrain the seed respiration and thus to make the internal nutrient consumption of seeds fall to the lowest possible level. This kind of semi-permeable film is believed to be able to maintain the seed moisture and absorb the soil moisture, and thus it can promote seed germination.

Chitosan also can increase soluble sugar content and enhance the activity of protease conversion to protein and increasing free amino acid content, which has obvious inhibiting effect for many plant pathogenic fungi.

Chitosan as a novel plant disease inhibitor can induce and improve the disease resistance of plants thus has a repellent effect to the pests in the soil.

Chitosan possesses the natural antifungal role, which increases the permeability of the outer membrane and inner membrane and ultimately disrupts bacterial cell membranes, with the release of cellular contents.

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Organisan
corporation

Not all chitosan products are the same. Visit our website to understand how our products are made from proprietary methods and ingredients. There is a difference!

Private Labeling Available.
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