



Novozymes Optimize[®] XC Inoculant

Up to 2X the rate of early nodulation for soybeans, with an extra-concentrated formulation

Optimize[®] XC Inoculant is a retailer-applied dual-action technology that combines *Bradyrhizobium japonicum* with exclusive LCO (lipo-chitooligosaccharides) technology. In 2016, a growth chamber study showed that combining LCO with rhizobia increases the rate of early soybean nodulation, resulting in 2X as many nodules compared to rhizobia alone. Plus, the LCO in Optimize[®] XC Inoculant enhances mycorrhizal colonization, which increases functional root volume and helps the plant uptake more water and nutrients through the root.

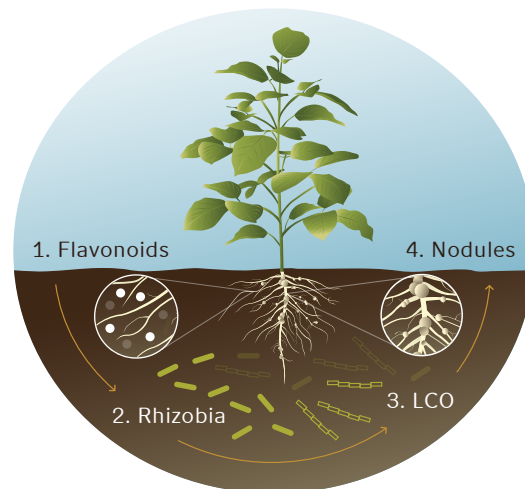
Benefits of using Optimize[®] XC Inoculant

- Combines *Bradyrhizobium japonicum* and LCO, which can double the rate of early nodulation
- Enhances mycorrhizal colonization, which increases functional root volume and helps the plant uptake more water and nutrients through the roots
- Increases nitrogen fixation through nodule formation
- Enhances nutrient availability which supports root and shoot growth
- Broad seed treatment compatibility* with 120 days on-seed life with most seed treatments
- The industry's lowest application rate for soybeans — leaving more space on your seed for additional treatments (0.75 fl oz per unit of seed with minimum of 1.5 fl oz total volume with water when applied alone)
- A convenient, easy-to-handle package

*See Seed Treatment Compatibility for the most current information at novozymes.com/bioag

How the technology works

1. Needing nitrogen, the plant releases flavonoids to signal rhizobia.
2. Sensing the flavonoids, the rhizobia signal LCO back to the plant.
3. The plant can respond to the LCO, allowing the rhizobia to infect its roots.
4. This symbiotic relationship creates nodules, which can help fix atmospheric nitrogen.



Product details

Packaging may vary.

Optimize® XC Inoculant

Active Ingredients	Packaging	Application rate	Case treats
10 billion (1×10^{10}) viable cfu/g <i>Bradyrhizobium japonicum</i>	400 units 5 x 2 x 40 unit	1.5 fl oz/100 lbs of seed	400 units or 56,000,000 seeds
1 x 10 ⁻⁷ % lipo-chitooligosaccharides			

Always read and follow label directions

To learn more visit us at novozymes.com/bioag or call your local retailer.

About Novozymes

Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future. We call it Rethink Tomorrow.

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