

# Optimize<sup>®</sup> LV liquid

LCO Promoter Technology for

soybean

## ATTENTION:

This Specimen label is provided for general information only.

## MINIMUM GUARANTEED ANALYSIS

ACTIVE: 10 billion ( $1 \times 10^{10}$ ) viable cfu/g *Bradyrhizobium japonicum*  
1 x 10<sup>-7</sup>% lipo-chitooligosaccharides

INERT: aqueous carrier

## NONPLANT FOOD INGREDIENT

Not a fertilizer substitute

## How it Works

Optimize<sup>®</sup> products combine LCO technology with quality inoculants. The active ingredients in Optimize LV inoculant are the bacterium *Bradyrhizobium japonicum* and lipo-chitooligosaccharide (LCO). *Bradyrhizobium japonicum* forms root nodules which convert, or fix, nitrogen in the air into forms the plant can use. The LCO molecule is involved as a signal molecule, driving communication in the rhizobia-legume nodulation system. When present, LCO allows for the nodulation process to begin earlier, improving plant performance.

## How to Apply

### SHAKE WELL BEFORE USING.

One 2 L (68 fl oz) liquid additive and one 6.9 L (232 fl oz) liquid bladder will treat 400 units (9,072 kg, 20,000 lb) of soybean seed.

### Application Rate

- Apply at a rate of 44.4 ml/ 45.4 kg (1.5 fl oz/100 lb seed).

### For Best Results

- Open package only when ready to use.
- Plant within 220 days of adding to bare soybean seed.

### Directions for Use for Continuous Application

- Start preparation of the Optimize LV inoculant only when you are ready to apply to seed.
- To ensure an even suspension shake the Liquid Additive and Liquid Bladder well. Settling of bacteria during storage is normal.
- Add the Liquid Additive into the Liquid Bladder, which contains the inoculants. Close the Liquid Bladder cap and agitate the premix.

- Pour the contents of the Liquid Bladder into the treater.
- Do not leave Optimize LV inoculant premix standing in treater mix tank for more than 24 hours if applied without a seed treatment.
- Apply to the seed as soon as possible.
- Calibrate the system to ensure that 44.4 ml (1.5 fl oz) of Optimize LV inoculant flows out of the nozzle in the time that 45.4 kg (100 lb) of seed passes beneath it.

### Seed Treatment Recommendations

- If used with seed treatments, apply recommended rate to Optimize LV Inoculant.
- We do not recommend the use of additional water, polymers, or dyes beyond what is required with the seed treatment.
- Application with other seed treatments is possible, but may reduce the planting window. For up-to-date pesticide compatibility information, please call Novozymes BioAg Limited at 1-888-744-5662.

Double inoculation, the act of using a double application of a rhizobial inoculant, is recommended in certain soil conditions (such as when planting on land previously used for pasture or planting soybean for the first time). Double inoculation can be achieved by application of any combination of liquids, peat powders, or furrow-applied liquid or granule rhizobial inoculants that are labeled for the target crop.

# Optimize<sup>®</sup> LV liquid

LCO Promoter Technology for

soybean

## Applicators and Other Handlers

The active ingredients in Optimize LV inoculant are *Bradyrhizobium japonicum* and lipo-chitooligosaccharide. Use appropriate personal protective equipment (PPE) to reduce exposure. Eye or skin contact, inhalation, or ingestion should be avoided. Wear standard protective clothing and equipment including gloves, and safety glasses. Ensure adequate ventilation. Where exposure through inhalation may occur, use respiratory protective equipment. In case of contact with skin or eyes, immediately flush exposed areas with plenty of water. Get medical attention if irritation occurs.

## Storage and Disposal

- Store product under cool and dry conditions, away from sunlight and direct heat sources.
- Do not allow to freeze.
- Minimize temperature fluctuations.
- Use before the expiration date.

Unused Optimize LV inoculant and Optimize LV inoculated seed should be disposed of in accordance with applicable federal, state and local requirements, and should not be used for food, feed, or oil purposes.

## Limited Warranty

The seller warrants that this product contains a minimum number of *Bradyrhizobium japonicum* viable cells and minimum concentration of lipo-chitooligosaccharides as specified on this label. The seller makes no other warranty expressed or implied as to product viability since product storage, use, and growing conditions are beyond the seller's control. Seller's guarantee is limited to the terms set out on the label and subject thereto. Buyer assumes the risk to persons or property arising from the use or handling of this product and accepts on that condition.