

# Optimize<sup>®</sup> liquid

## LCO Promoter Technology for

# peanut

### ATTENTION:

This Specimen label is provided for general information only.

### MINIMUM GUARANTEE

ACTIVE: 2 billion (2 x 10<sup>9</sup>) viable cfu/ml *Bradyrhizobium sp. Arachis*  
1 x 10-7% lipo-chitooligosaccharides

INERT: aqueous carrier >99%

### NON-PLANT FOOD INGREDIENT

Not a fertilizer substitute

### How it Works

Optimize<sup>®</sup> products combine LCO technology with quality inoculants. The active ingredients in Optimize liquid for peanut are the bacterium *Bradyrhizobium sp. Arachis* and lipo-chitooligosaccharide (LCO). *Bradyrhizobium sp. Arachis* forms root nodules which convert, or fix, nitrogen in the air into forms the plant can use. The LCO molecule enhances the soil microbial environment to support the plant's nutritional availability, supporting the growth and yield potential of the crop.

### Directions for Use

**Open package only when ready to use.**  
**Use before expiration date.**

**1. Clean the liquid system with a cleaning solution.** Optimize is a biological product, which may be sensitive to chemical residues.

**2. Convert the sprayer to in-furrow application.** Remove spray tips and replace with appropriate flow regulator "orifice discs." Proper orifice disc number may be determined from sprayer manual. The objective is to obtain a solid stream of liquid into the furrow. Place spraying assembly behind the seed planting assembly so that the solid stream of product will flow into the furrow and onto the seed. Optimize should be on the seed in the furrow, not to the side, or above, nor below the seed.

**3. Mixing instructions.** Fill clean spray tank half full with clean, non-chlorinated water. Pull the Optimize package from the carton, shake well, remove the cap and inner seal, and empty into the cleaned spray tank. For rapid dispensing, hold the Optimize package over the spray tank and cut the corner of the bag. Add remainder of clean, non-chlorinated water to spray tank to the appropriate solution level. Optimize will be mixed with this procedure and does not require agitation to remain in suspension. Use the diluted product within 24 hours. Do not allow the diluted tank mix to exceed 100°F.

**4. Application rate/unit coverage.** The Optimize concentrate is applied in-furrow at a rate of 1 oz/1,000 feet of row. The quantity of Optimize applied per acre varies depending upon the row width. The measurement chart below provides the recommended rate of Optimize per acre and also indicates the number of acres treated with each Optimize unit. Optimize concentrate must be diluted with clean, cool, non-chlorinated water and applied with a liquid system. The application of the diluted liquid should be approximately 3 to 20 gallons/acre based on equipment used and soil moisture. Calibrate sprayer to deliver correct amount.

**5. Adverse conditions.** Hot/dry soil: minimize the harmful effect of hot/dry soil on the product by applying water as soon as possible (irrigated land). Pivot irrigation – begin the irrigation on the peanuts that were planted first.

Flooded/waterlogged soil: Optimize may not perform as well in flooded or waterlogged soil.

| U.S. Customary Measurements |  |                                |
|-----------------------------|--|--------------------------------|
| Row width (inches)          | Recommended Optimize Peanut Inoculant Rate (ounces/acre) | 1.1 gallon unit treats (acres) |
| 30"                         | 17.4   | 8.1                            |
| 36"                         | 14.5   | 9.7                            |
| 38"                         | 13.8   | 10.3                           |
| 40"                         | 13.1   | 10.8                           |

1.1 gallon = 141 fl. oz.

# Optimize<sup>®</sup> liquid

## LCO Promoter Technology for

peanut

### Applicators and Other Handlers

The active ingredients in Optimize liquid for peanut are *Bradyrhizobium sp. Arachis* and lipo-chitooligosaccharide. 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. This product contains microorganisms that may have the potential to provoke sensitizing reactions; use appropriate personal protective equipment (PPE) to reduce exposure. Sensitized individuals should wear a NIOSH-approved respirator. 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 under cool and dry conditions, avoid temperatures consistently over 20°C/68°F.
- Avoid long term freezing conditions.
- Minimize temperature fluctuations.
- Store away from sunlight and direct heat sources.
- Use before the expiration date.
- Shake well before use.

Unused Optimize should be disposed of in accordance with applicable federal, state, and local requirements.

### Limited Warranty

The seller warrants that this product contains a minimum number of *Bradyrhizobium sp. Arachis* 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.