

# Liquid • Suspension concentrate • For agricultural, horticultural, turf and ornamental use Improves plant nutrient availability and plant growth

#### READ ALL DIRECTIONS BEFORE USING THIS PRODUCT

#### CONTAINS NON-PLANT FOOD INGREDIENT

Soil-Amending Guaranteed Analysis ACTIVE INGREDIENT:

Total Microbe:

Bacillus velezensis 2 x 10<sup>10</sup> CFU/mL

#### How it Works

LALRISE® START SC is a liquid inoculant based on a plant growth promoting rhizobacteria (PGPR) that increases crop establishment through improved root vigor and nutrient availability. This PGPR solubilizes phosphorus from organic and inorganic reservoirs, which promotes growth in young plants and increases crop homogeneity, root mass growth and yields.

# **Application Rates**

Canola, cereal grains (including barley, buckwheat, corn, millet, oats, rice, rye, sorghum, teosinte, triticale, and wheat), cotton, cover crops, forage crops, legumes (fresh and dry pulses), oilseeds, peanuts, soybeans

**On-seed application:** 0.05 fl. oz. –9 fl. oz. per 100 lb. (1.5–255 mL per 45.4 kg) of seed. **Low-volume spray, side-dress, foliar or overhead spray:** 0.25–3.0 fl. oz. per acre. Mix in sufficient water to inject.

**In-furrow drench:** 0.25–3.0 fl. oz. per acre. Mix in sufficient water to inject. **In-furrow spray:** 0.25–3.0 fl. oz. per acre. Mix in sufficient water to inject. **Banding:** 0.25–3.0 fl. oz. per acre. Mix in sufficient water to inject.

**Irrigation:** Apply via irrigation systems 0.25–3.0 fl. oz. per acre. Add to water mix (feeder tank) and then inject evenly into irrigation system to ensure sufficient distribution.

# Onions, potatoes (Irish and sweet), sugar beets, other tuber, root and bulb crops

**Low-volume spray, side-dress, foliar or overhead spray:** 0.25–3.0 fl. oz. per acre. Mix in sufficient water to inject.

In-furrow drench: 2.0–3.0 fl. oz. per acre. Mix in sufficient water to inject. In-furrow spray: 2.0–3.0 fl. oz. per acre. Mix in sufficient water to inject. Banding: 2.0–3.0 fl. oz. per acre. Mix in sufficient water to inject.

**Irrigation:** Apply via irrigation systems 2.0–3.0 fl. oz. per acre. Add to water mix (feeder tank) and then inject evenly into irrigation syst.em to ensure sufficient distribution.

# Fruits, vegetables, nuts, plantations, trees, turf and ornamentals

**On-seed application:** 3.0 fl. oz. –9 fl. oz. per 100 lb. (3–255 mL per 45.4 kg) of seed. **Seedling trays:** 1.50–4.0 fl. oz. in 100 gallons of water. Drench to the point of wetness. Avoid run off. Apply at monthly intervals. First application in seedling trays should only be after germination/root formation.

**Low-volume spray, side-dress, foliar or overhead spray:** Mix 2.5–3.0 fl. oz./acre in sufficient water.

 $\label{local-control} \textbf{In-furrow drench:} \ \mbox{Mix 2.5--3.0 fl. oz. per acre in sufficient water.}$ 

In-furrow spray: Mix 2.5–3.0 fl. oz. per acre in sufficient water.

**Soil drench:** Mix 2.5–3.0 fl. oz. per acre in sufficient water to inject. Include product towards end of drenching cycle to minimize product dilution. Apply to the point of wetness.

**Root dip:** Apply 0.1–0.5 fl. oz. per 10 gallons of water. Mix well. Dip for 10–30 seconds. **Root ball drench:** Mix 0.25–1.5 fl. oz. into 25 gallons of water. Apply enough water to drench the root zone.

Soil injection probes: 0.10 fl. oz. per 1.0 gal of water.

Irrigation: Apply via irrigation systems 2.5–3.0 fl. oz. per acre. Add to water mix (feeder tank) and then inject evenly into irrigation system to ensure sufficient distribution.

**Turf application:** Apply 2.5–3.0 fl. oz. per acre (43,560 sq. ft.) of turf. Use sufficient water to get to the root zone. Reapply as needed as every 3–6 weeks.

# **Additional Application Directions**

For on-seed uses: Ensure seed treater has been properly calibrated. Store treated seed in cool, dry conditions. Plant inoculated seed within 18 months. Reinoculation with fresh product is recommended after this time frame. Some seed treatments may be harmful to inoculants. A compatibility test should be conducted prior to use with other seed treatments.

For spray, side-dress, band, drench, dip, injection or irrigation uses: For best results, apply product under moist conditions (after a rain or irrigation) to soil or growth media, in the morning or late afternoon. Do not apply to dry soils or under high-temperature conditions. Optimal application temperature is between 50 °F–86 °F (10 °C–30 °C).

Mixing instructions: Gradually mix LALRISE® START SC with water while agitating. Use immediately after preparing suspension. Continuously agitate while applying OR remix before each application. Do not keep suspension for longer than one day.

**Compatibility:** LALRISE® START SC can be tank-mixed with most fertilizer solutions. Before mixing with pesticides, ask your supplier for compatibility advice.

#### APPLICATION TIMING

**Annuals:** 1–2 applications per crop, at monthly intervals, from planting to emergence or at transplanting.

Perennials: 2-3 applications per crop, at monthly intervals.

**Trees, Turf and Ornamentals:** Applications should be made when the buds first open in the spring. Repeat the treatments two or three times at monthly intervals. Fall applications can be made to boost the root system and ensure nutrient storage prior to dormancy.

#### Precautions

# KEEP OUT OF REACH OF CHILDREN

The active ingredient in LALRISE® START SC is naturally occurring *Bacillus velezensis cells*. Persons allergic to bacteria and immune-deficient individuals should avoid using this product. Avoid exposure through inhalation, or to open wounds and eyes. Standard protective clothing and equipment including gloves, safety goggles and a NIOSH (The National Institute for Occupational Safety and Health) or MSHA (the Mine Safety and Health Administration) approved respirator are recommended during handling and storage. Use this product in well-ventilated areas.

In case of contact with skin or eyes, immediately flush exposed areas with a continuous gentle stream of clean water. In case of inhalation, remove person to fresh air. In case of ingestion, do not induce vomiting but rinse mouth with water. Seek medical attention if discomfort or irritation develops. Medical treatment should be based on the judgment of the physician in response to the reaction of the patient.

#### Storage and Handling Recommendations

This product expires 24 months after the production date printed on the bag if stored in a cool, dry location in the original, unopened packaging. Open packages must be resealed and kept under the same conditions for no more than six months. Do not expose to temperatures >95 °F (35 °C). Unused product should be disposed of in accordance with applicable federal, provincial or state, and municipal laws and regulatory guidelines.



# **Limited Warranty**

Danstar Ferment AG / LALLEMAND PLANT CARE ("Danstar") warrants only that this product conforms to the product description on this label and is reasonably fit for the purposes set forth in the Directions for Use when used in accordance with them. However, ineffectiveness or other unintended consequences may result because of such factors as the use, storage or handling of the product contrary to the label instructions, all of which are beyond the control of Danstar. To the extent consistent with applicable law, Danstar shall not be liable for indirect or consequential damages resulting from the use, storage or handling of this product. DANSTAR MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

LALRISE® START SC is a registered trademark of Danstar Ferment AG / LALLEMAND PLANT CARE.

Information regarding the contents and levels of metals in this product is available on the internet at http://www.aapfco.org/metals.html

#### Not a plant food product.

Not recommended for use as a fertilizer substitute.

**Net Weight:** 81 fl. oz. (2.4 L)

**Batch No.:** See printing on the packaging **Production date:** See printing on the packaging

#### Guaranteed by:

Danstar Ferment AG / LALLEMAND PLANT CARE Poststrasse 30 CH-6300 Zug, Switzerland

# Marketed by and distributed by:

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