

LALRISE VITA

Improves plant nutrient availability and plant growth

For Agricultural Use

For Turf and Ornamental Use

READ ALL DIRECTIONS BEFORE USING THIS PRODUCT

CONTAINS NON-PLANT FOOD INGREDIENT

For Trees, Turf and Ornamentals:

Soil Amending Guaranteed Analysis

ACTIVE INGREDIENT:

Total Microbe

Bacillus velezensis..... 2 x 10⁹ CFU/g

HOW IT WORKS

LALRISE® VITA is a wettable powder based on a plant growth promoting rhizobacteria (PGPR) that increases plant 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, tree heights, root mass growth, winter vigor, flowering and yields.

APPLICATION DIRECTIONS

For Agricultural Use:

Berries and Small Fruits, including but not limited to: blackberry, blueberry, cranberry, currant, elderberry, grape (table and wine), gooseberry, huckleberry, kiwi fruit, loganberry, raspberry, strawberry.

Cereals, including but not limited to: barley, buckwheat, canary seed, corn (silage and grain), durum wheat, millet, oats, quinoa, rye, sorghum, spelt, triticale, wheat.

Citrus Fruits, including but not limited to: citrus hybrids, grapefruit, kumquat, lemon, lime, orange, pummelo, satsuma mandarin.

Cucurbit Vegetables, including but not limited to: cucumber, cantaloupe, melon, gourds, pumpkin, squash, watermelon, winter squash.

Fruiting Vegetables, including but not limited to: eggplant, pepper (bell, sweet and hot), okra, tomatillo, tomato.

Herbs, Spices, and Mints, including but not limited to: aniseed, basil, caraway, chives, dill, fennel, lavender, marjoram, oregano, parsley, rosemary, sage, savory, thyme, watercress.

Leafy Vegetables, Cole Crops, and other Vegetables, including but not limited to: LEAFY VEGETABLES: arugula, bok choy, celery, endive, fennel, lettuce (head and leaf), napa cabbage, parsley, radicchio, rhubarb, spinach, swiss chard. COLE CROPS: broccoli, brown mustard, brussels sprouts, cabbage, cauliflower, chinese cabbage collards, kale, kohlrabi, mustard greens, white mustard. OTHER: asparagus.

Legumes (fresh and dry pulses), including but not limited to: alfalfa, beans, chick peas, lentils, lupin, peas, soybeans.

Oilseeds, including but not limited to: borage, canola, crambe, evening primrose, flax, gold of pleasure, hemp, linseed, meadowfoam, mustard seed, poppy, pumpkin seed, safflower, sesame, sunflower.

Pome Fruit, including but not limited to: apple, pear, quince.

Roots and Tubers, including but not limited to: beet, potato, sugar beet, sweet potato.

Stone Fruit, including but not limited to: apricot, cherry (sweet and tart), nectarine, peach, plum, prune.

Tree Nuts, including but not limited to: almond, beech nut, brazil nut, butternut, cashew, chestnut, coconut, filberts, hickory nut, macadamia nut, pecan, pistachio, walnut

Tuber, Root and Bulb Crops, including but not limited to: Artichoke, beet (garden and sugar), carrot, cassava, celeriac, chervil, chive, chicory, dasheen, garlic, ginger, ginseng, horseradish, jerusalem artichoke, leek, onion, parsnip, potato, radish, rutabaga, salsify, shallot, sweet potato, turmeric, turnip, yam.

Misc. crops, including but not limited to: globe artichoke, hemp, hops, mushrooms, tobacco and tropical crops such as acerola, avocado, banana, coffee, guava, mango, papaya, passion fruit, pineapple, plantain, and starfruit.

Indoor and Outdoor Trees, Shrub Seedlings, Nursery Crops including but not limited to: deciduous trees (maple, oak, etc.), coniferous trees (juniper, pine, spruce, etc.), forest trees, fruit trees, ornamentals, shrubs, urban trees, vine crops, woody ornamentals

Flowers, Bedding Plants, and Ornamentals, including but not limited to: acchillea, african violet, ageratum, alyssum, amaryllis, anemone, anthurium, aster, azalea, begoinas, calceolaria, campanula, carnation, centaurea, cerastium, chrysanthemum, cineraria, coleus, cyclamen, daffodils, dahlia, daisy, delphinium, dianthus, dieffenbachia, freesia, fushia, gaillardia, gazonia, geraniums, gerbera, gladiolus, gloxinia, gypsophila, hедера, hyacinth, impatiens, iris, kalanchoe, liatris, lilies, lobelia, marigolds, matthiola, monarda, nigella, pansy, pelargonium, petunias, phlox, poinsettia, poppy, primrose, rhododendron, rose, rudbeckia, salvia, senecio, sinningia, statice, sweet pea, tulips, verbena, vinca, zinnia

Turf, including but not limited to: Lawns, turf grown for seed and sod, turf, golf courses, sod farms

APPLICATION METHODS

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 and 86°F; 10 °C and 30 °C. Apply via low volume spray, drench or drip irrigation to soil or growth media.

Mixing instructions - Gradually mix LALRISE® VITA 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® VITA can be tank mixed with most fertilizer solutions. Before mixing with pesticides, ask your supplier for compatibility advice.

APPLICATION TIMING

For Agricultural Uses:

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.

For Trees, Turf and Ornamental Uses: 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.

APPLICATION RATES

For Seedling Trays: 0.66 – 1.66 oz. in 5 gal of water; 20-50 g in 20 L of water (0.1-0.25% concentration of product in 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.

For Agricultural Uses:

- **Low volume spray:** 0.9 lbs/acre in 53-106 gal of water; 1 kg/ha in 200-400 L of water.
- **Soil drench:** 0.9 lbs/acre or 1 kg/ha. Include product towards end of drenching cycle to minimize product dilution. Apply to the point of wetness.
- **Drip irrigation:** Apply via irrigation systems with 0.9 lbs/11 gal water (stock solution) or 0.9 lbs/acre or with 1 kg/100 L water (stock solution) or 1 kg/ha.

LALRISE VITA

For Trees, Turf and Ornamental Uses:

- **Low volume spray:** 0.9 lbs/acre in 53-106 gal of water; 1 kg/ha in 200-400 L of water.
- **Soil drench:** 0.9 lbs/acre or 1 kg/ha. Include product towards end of drenching cycle to minimize product dilution. Apply to the point of wetness.
- **Root ball drench:** Pre-drench root ball with approximately 3 gal or 10 L of water then apply 0.2-0.4 oz. or 5-10 g in 1.5 gal or 5 L of water.
- **Soil injection probes:** 0.2-0.4 oz. or 5-10 g in up to 1 gal or 4 L of water per tree. Injection sites should be evenly spaced under dripline of canopy.
- **Drip irrigation:** Apply via irrigation systems with 0.9 lbs/11 gal water (stock solution) or 0.9 lbs/acre or with 1 kg/100 L water (stock solution) or 1 kg/ha.

	Ounces (oz.) per plant	Gallons (gal) of water per plant	Grams (g) per plant	Litres (L) of water per plant	Number of applications
< 1 gallon pot	0.004-0.01	0.1-0.3	0.1 - 0.4	0.25 – 1.0	2-3 at monthly intervals
1-5 gallon pot	0.02-0.1	0.3-1	0.5 – 2.5	1 - 5	2-3 at monthly intervals
7-15 gallon pot	0.1-0.2	1-3	3.5 - 5	5 - 10	2-3 at monthly intervals
20-30 gallon pot	0.2-0.4	3-5	5 - 10	10 - 20	2-3 at monthly intervals
Landscape trees	0.2-0.4	3-5	5 - 10	10 - 20	2-3 at monthly intervals
Orchards; Nursery field bed	1 lb/acre	26-106	1 kg/ha	100 - 400	2-3 at monthly intervals
Turf	1 lb/acre	53-106	1 kg/ha	200 - 400	2-3 at monthly intervals

LALRISE® VITA 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>

LIMITED WARRANTY

Danstar Ferment AG / LALLEMAND PLANT CARE ("Danstar") warrants that this inoculant (the "Product"), will contain the minimum number of live cells per milliliter/gram as specified on the Product label at the time the Product is first sold by Danstar. Danstar makes no warranty as to the Product's viability or performance since the storage, use and application of the Product and growing condition are beyond the control of Danstar.

To the extent permitted by applicable law, Danstar makes no other warranties of any kind and hereby disclaims all other warranties, whether oral or written, expressed or implied, including without limitation, the implied warranties of the merchantability and fitness for a particular purpose and the warranty of non-infringement. Buyer of the Product assumes the risk to persons and real or personal property arising from the use, application or handling of the Product or seeds treated with the Product.

Buyer's exclusive remedy for any and all losses, injury or damages resulting from a breach of this Limited Warranty shall be, at the election of Danstar, either the price paid by buyer for the Product purchased directly from Danstar, or the replacement of such quantity of the Product. Danstar shall not be responsible for any liabilities, damages, expenses, costs or other losses, including without limitation, loss of profits suffered in connection with the use of the Product and in no event shall Danstar be liable for any incidental, consequential, special or punitive damages to the buyer or any third party.

Buyers of the Product are deemed to have accepted the terms of this Limited Warranty upon opening the container containing the Product, requesting the Product to be applied to the seed, or use of seed to which the Product has been applied, whichever is earlier. The terms of this Limited Warranty may not be varied by any oral or written agreement.

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 freezing or 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.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

The active ingredient in LALRISE® VITA 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 judgement of the physician in response to reaction of the patient.

Manufactured by:

Danstar Ferment AG /
LALLEMAND PLANT CARE
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Switzerland

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