

JumpStart[®] granular

phosphate-solubilizing inoculant for

canola, barley, flax,
mustard, oat, pea,
lentil, soybean, wheat
and canary seed

ATTENTION:

This Specimen label is provided for general information only.

MINIMUM GUARANTEE ANALYSIS

ACTIVE: 1.3 x 10⁶ cfu/g *Penicillium bilaiae*

INERT: peat-based carrier

NON-PLANT FOOD INGREDIENT

Not a fertilizer substitute

How it Works

The active ingredient in JumpStart[®] granular phosphate-solubilizing inoculant is the soil fungus *Penicillium bilaiae*, which grows on plant roots and makes less-available residual soil phosphate available for crop use.

How to Apply

Shipping and stacking of JumpStart granular may cause some granules to become compacted. Loosen compacted granules before using this product.

JumpStart granular should be applied directly with the seed in the seed row using a granular tank for application. Application rates will vary according to row spacing; refer to Table 1 for details. Apply in-furrow only. Do not band. Do not mix JumpStart granular in the same tank with fertilizers, granular pesticides, or seed. JumpStart granular can be used with pesticide treated seed. Do not leave JumpStart granular in tank or seed cart overnight. Be sure to calibrate your equipment to deliver the correct amount of JumpStart granular per acre for your row spacing, refer to Table 1 for details. Under humid conditions, reduce the weight of JumpStart granular per tank and check flow on a regular basis.

Calibrate with 50 kg before adding more inoculant to the tank or seed cart. A maximum of 264 kg (582.4 lb) per tank should be used.

- Before using, make sure the hopper, rotor, feed mechanism, and calibration equipment are free from chemical residue, fertilizer, and debris.
- Make sure that the tubing to the planting shoe is as straight and vertical as possible.
- If using an air seeder, ensure that the tank screen is clean when filling tank or seed cart. Follow calibration instructions supplied by the air cart manufacturer. Check flow regularly.
- If augering, please do so at low speeds to avoid damage to JumpStart granular.

Table 1: Application rate for JumpStart granular

Row Spacing (cm) (in)	15.2 (6.0)	20.3 (8.0)	22.9 (9.0)	25.4 (10.0)	30.5 (12.0)
Application rates (kg/ha) (lb/ac)	6.1 (5.5)	4.6 (4.1)	4.0 (3.6)	3.7 (3.3)	3.1 (2.7)

Note: The bulk density for JumpStart granular averages 0.7 g/cm³ (43 lb/ft³).

Special Considerations

Environmental conditions can change the flowability of JumpStart granular.

- Do not allow JumpStart granular to get wet or to dry out.
- In humid conditions, check and clean metering system regularly to ensure consistent flow.

Where to Use for Maximum Benefit

For soils low to medium in available phosphate:

Use JumpStart with the lower recommended P fertilizer rate from soil test results. If you do not soil test, use with your normal P fertilizer rate.

For soils high to very high in available phosphate:

Replace the starter in-row P fertilizer application [16.8-22.4 kg P₂O₅/ha (15-20 lb P₂O₅/acre)] with JumpStart.

Benefits of using JumpStart may be limited on:

- Extremely sandy soils (greater than 85% sand);
- Extremely high organic matter soils (greater than 14% organic matter);
- Fields that have been heavily manured over the last several years.

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Applicators and Other Handlers

The active ingredient in JumpStart phosphate-solubilizing inoculant is *Penicillium bilaiae* spores. 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

The active ingredient in JumpStart is a living organism and requires specific storage conditions to ensure viability and product performance. To maintain product viability:

- Store JumpStart bags and seed to which JumpStart has been applied in a cool, unheated facility <20°C (68°F) away from sunlight and direct heat sources.
- Minimize temperature fluctuations.
- Avoid freeze/thaw cycles.
- Use entire contents of bags once opened.
- Use before the expiry date. The expiry date is valid only for unopened bags stored under the conditions listed above.
- Do not mix with unapproved products.
- For a list of compatible seed treatments, contact Novozymes at 1-888-744-5662.

Unused JumpStart should be disposed of in accordance with applicable Federal, state/provincial, and local requirements.

Limited Warranty

The seller warrants that this product contains a minimum number of *Penicillium bilaiae* colony forming units as specified on this label. The seller makes no other warranty expressed or implied as to product viability or performance 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 the product on that condition.