

# LALFIX START

## SPHERICAL PULSES



PEA, LENTIL,  
& FABA BEAN



CHICKPEA



SPHERICAL  
GRANULAR



INOCULANT



## MULTI-ACTION PREMIUM PULSES GRANULAR INOCULANT

With its high porosity structure maintaining the growth environment to protect and preserve the two unique strains of rhizobia, **LALFIX® START SPHERICAL Pulses** offers unmatched performance, durability and ease-of-use for inoculating **pea, lentil, faba bean** and **chickpea**.

Our dual-action phosphorus solubilizer, *Bacillus velezensis*, contained within each granule, quickly colonizes the root system allowing for newly available phosphorus to be efficiently taken up by the plant. In fact, the biological contained within **LALFIX START SPHERICAL Pulses** is the benchmark for increased phosphorus availability at all soil pH levels.

Once applied to the soil, the highly efficient bacteria will colonize the root promoting early nodulation and N fixation for better crop establishment and enhanced yields.

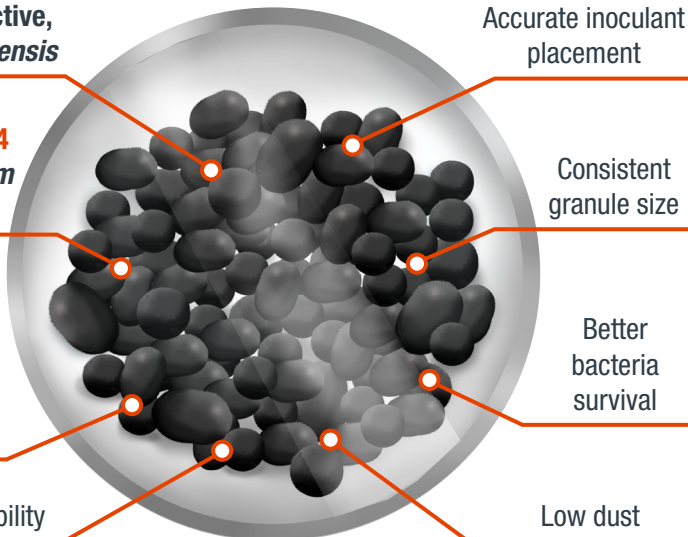
### ADVANTAGES

Addition of active, *Bacillus velezensis*

NEW FOR 2024  
*Mezorhizobium ciceri*

Better flowability through application equipment

Granule durability



Accurate inoculant placement

Consistent granule size

Better bacteria survival

Low dust

### CHARACTERISTICS

#### Active Ingredient

- $7.5 \times 10^7$  *Rhizobium leguminosarum* biovar *viciae* CFU/g
- $7.5 \times 10^7$  *Mezorhizobium ciceri* CFU/g
- $5 \times 10^7$  *Bacillus velezensis* CFU/g

**Bulk Density:** 31.5 lbs per cu. ft., 0.505 kg/L

#### Package Size

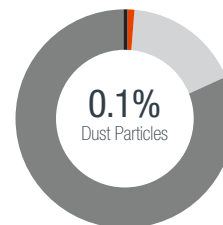
- 12.2 kg (27 lbs) per bag (10 ac/bag @ 10" row spacing)
- 392 kg (864 lbs) per tote (320 ac/bag @ 10" row spacing)

**Always read and follow label instructions.**

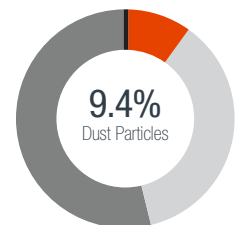
### IN-FURROW APPLICATION RATE

10" row spacing = 2.7 lbs/ac  
(1 bag treats 10 acres). See table for recommended rates by row spacing.

### SPHERICAL GRANULE: CONSISTENT SIZE & LOW DUST AGVISE LABORATORIES



LALFIX® Granular Technology



Traditional Peat Granules

● <0.5 mm   ● 0.5-1.0 mm   ● 1.0-2.0 mm   ● >2.0 mm

Microbial by nature

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## MODES OF ACTION

*Bacillus velezensis*  
Phosphorus Solubilization

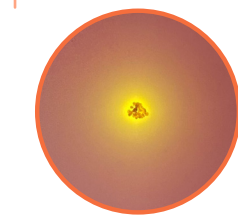
ORGANIC ACIDS ACTION ON  
MINERAL PHOSPHORUS

+

PHYTASE ACTION ON  
ORGANIC PHOSPHORUS

=

**INCREASED PHOSPHORUS  
AVAILABLE IN THE  
RHIZOSPHERE**



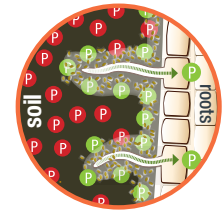
Below pH 5.2 ↔ Above pH 6.8

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Halo indicates bacterial  
phytase activity

>



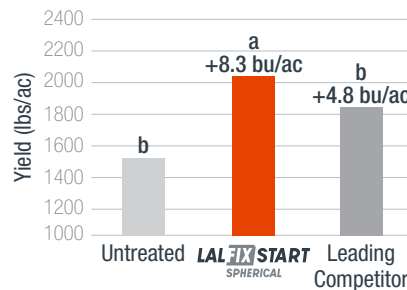
Solubilizes phosphorus:  
Up to 28% increase

## TRIAL RESULTS - DRY PEAS

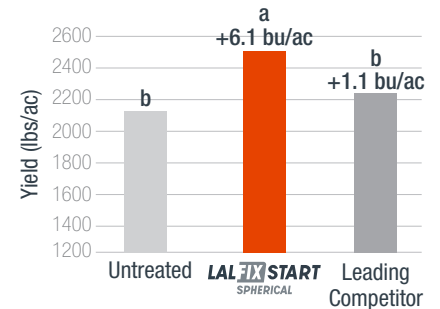
### LALFIX START SPHERICAL GRANULE

- Conducted through Montana State University
- Conducted by Dr. Chengci Chen (Sidney) and Dr. Jed Eberly (Moccasin)
- Bushel advantage over untreated listed above bars

### SIDNEY, MT



### MOCCASIN, MT



4x Replications. Treatments with the same letters are not significantly different at  $p < 0.1$ . soil pH = 7.3 (Sidney), 7.6 (Moccasin)

## APPLICATION TIPS

- Follow equipment manufacturer's calibration methods.
- Calibrate in field at time of product use.
- Environmental conditions may affect calibration set points and overall granular flowability. Check calibration regularly.
- Ensure hopper tank, metering system and delivery hoses are clean from moisture, fertilizer, and pesticide residue before calibration.
- Granules should be applied directly into the seed trench furrow with the seed.
- Application rates greater than recommended are not detrimental and increased application rates may be beneficial.

Reference chart below for specific row width and suggested application rates:

| ROW WIDTH |    | RECOMMENDED RATE |       |       | AREA TREATED - ACRES |      |
|-----------|----|------------------|-------|-------|----------------------|------|
| in        | cm | lbs/ac           | kg/ac | kg/ha | BAG                  | TOTE |
| 6         | 15 | 4.4              | 2     | 5     | 6.1                  | 196  |
| 7         | 18 | 3.8              | 1.7   | 4.3   | 7.1                  | 227  |
| 8         | 20 | 3.3              | 1.5   | 3.7   | 8.2                  | 262  |
| 9         | 23 | 3.0              | 1.4   | 3.3   | 9.0                  | 288  |
| 10        | 25 | 2.7              | 1.2   | 3.0   | 10.0                 | 320  |
| 12        | 30 | 2.2              | 1.0   | 2.5   | 12.3                 | 393  |

## COMPATIBILITY

**LALFIX START SPHERICAL Pulses** is compatible with seed-applied treatments and other in-furrow applications. If you have a compatibility question, contact your Lallemand Plant Care representative for more information.

### About Lallemand Plant Care

For over 100 years, Lallemand has been an expert in yeast and bacteria manufacturing. It is now a global leader in the development, production, and marketing of microorganisms for various industries. Using sound science and know-how, Lallemand Plant Care provides effective microbial-based solutions that deliver agronomic, economic, and sustainable value to growers.