











GRANULAR





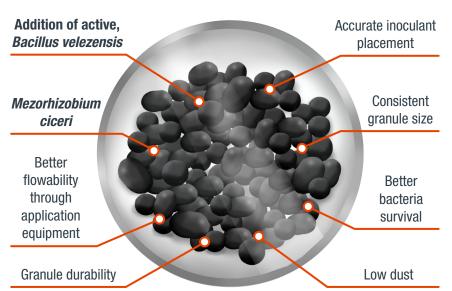
MULTI-ACTION PREMIUM PULSES GRANULAR INOCULANT

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





CHARACTERISTICS

Active Ingredient

- 7.5 x 10⁷ Rhizobium leguminosarum biovar viciae CFU/g
- 7.5 x 107 Mezorhizobium ciceri CFU/g
- 5 x 107 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)

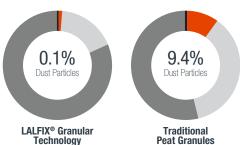
Always read and follow label instructions.

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



<0.5 mm

0.5-1.0 mm

>2.0 mm

ORGANIC ACIDS ACTION ON MINERAL PHOSPHORUS



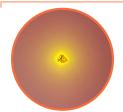
PHYTASE ACTION ON **ORGANIC PHOSPHORUS**

INCREASED PHOSPHORUS AVAILABLE IN THE

Bacillus velezensis

MODES OF ACTION

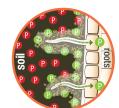
Bacillus velezensis **Phosphorus Solubilization**



Below pH 5.2 \longleftrightarrow Above pH 6.8



Halo indicates bacterial phytase activity

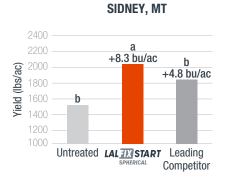


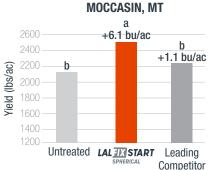
Solubilizes phosphorus: Up to 28% increase

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





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.

