



# Novozymes JumpStart® Wettable Powder Inoculant

**Improve phosphate availability to support early vigor in alfalfa, canola, corn, chickpea, dry bean, lentil, mustard, pea, sorghum, soybean, sugar beet, sunflower and sweet clover.**

JumpStart® Wettable Powder Inoculant contains the naturally occurring soil fungus *Penicillium bilaiae*. It grows along plant roots releasing nutrients like phosphate bound in the soil, making them more available for the crop to use. *Penicillium bilaiae* does not replace the need for phosphate fertilizer, but does provide crops access to more nutrients for higher yield potential.

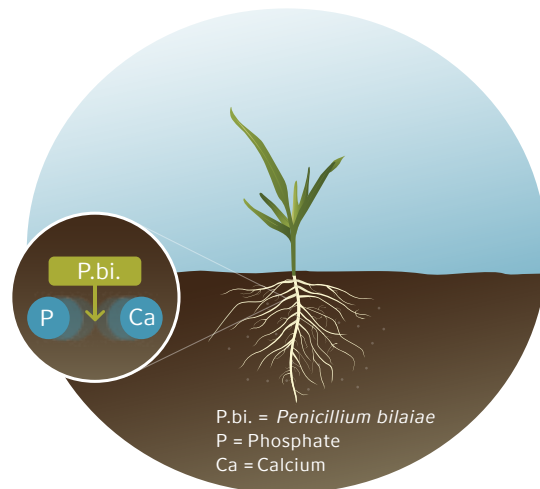
## Benefits of using JumpStart® Wettable Powder Inoculant

- Improves phosphate availability which:
  - Enhances early vigor
  - Bolsters root and shoot growth, supporting greater stress tolerance and earlier, more uniform plant development
  - Improves yield potential
- Improved plant nutrition enables plants to better handle environmental pressures
- Better potential for winter wheat survival through enhanced root systems
- Active in cool soil temperatures when phosphate is less available, which can help get the crop off to an early start

## How the technology works

### Freeing Phosphate

*Penicillium bilaiae* releases bound mineral forms of soil and fertilizer phosphate, making it more available for the plant to use.



## Product details

Packaging may vary.

### JumpStart® Wettable Powder Inoculant

Active ingredients	Packaging	Application rate	Case treats
720 million (7.2 x 10 <sup>8</sup> ) cfu/g <i>Penicillium bilaiae</i>	4 x 40 bu (2.0 oz)	Varies (see below)	See chart below

Always read and follow label directions

### On-Seed Application Rates and Bare Seed Planting Windows 2.0 oz container

Crop	Seed inoculated by 2.0 oz	Approximate water volume	Planting window (bare seed)
Wheat	40 bu = 2,400 lbs	7.6 quarts	30 days
Pea	70 bu = 4,200 lbs	6.1 quarts	30 days
Chickpea	55 bu = 3,300 lbs	4.6 quarts	30 days
Dry Bean <sup>1</sup>	40 bu = 2,400 lbs	3.9 quarts	30 days
Lentil	40 bu = 2,400 lbs	3.9 quarts	30 days
Soybean	50 bu = 2,500 lbs	3.9 quarts	30 days
Corn	10 units	3.0 quarts	60 days
Sunflower <sup>2</sup>	230 lbs	2.1 quarts	30 days
Sorghum	300 lbs	1.9 quarts	30 days
Alfalfa/Sweet Clover	150 lbs	1.6 quarts	7 days
Canola/Mustard	140 lbs	1.6 quarts	60 days
Sugar Beet	5 units	1.0 quarts	7 days

**On-Seed Application Rates and Bare Seed Planting Windows  
14.0 oz container**

<b>Crop</b>	<b>Seed inoculated by 14.0 oz</b>	<b>Approximate water volume</b>	<b>Planting window (bare seed)</b>
Wheat	280 bu = 16,800 lbs	53.5 quarts	30 days
Pea	490 bu = 29,400 lbs	43.5 quarts	30 days
Chickpea	385 bu = 23,100 lbs	32.5 quarts	30 days
Dry Bean	280 bu = 16,800 lbs	28.0 quarts	30 days
Lentil	280 bu = 16,800 lbs	28.0 quarts	30 days
Soybean	350 units = 17,500 lbs	28.0 quarts	30 days
Corn	70 units	20.71 quarts	60 days
Sunflower <sup>2</sup>	1,610 lbs	15.5 quarts	30 days
Sorghum	2,100 lbs	13.5 quarts	60 days
Alfalfa/Sweet Clover	1,050 lbs	11.5 quarts	7 days
Canola/Mustard	980 lbs	11.5 quarts	60 days
Sugar Beet	35 units	7.0 quarts	7 days

<sup>1</sup> Use with pinto, great northern, black, navy, kidney, red and pink bean.

<sup>2</sup> When treating confectionary sunflowers, increase water rates to assist with proper coverage.

**To learn more visit us at [novozymes.com/bioag](https://novozymes.com/bioag) or call your local retailer.**

**About Novozymes**

Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future. We call it Rethink Tomorrow.

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