

# Nodulator PRO preinoculant plus Integral technology sheet

Professionally applied Biostacked® preinoculant with up to 60 days of on-seed survivability.

- Biostacked preinoculant system provides the nitrogen-fixing rhizobium of Nodulator® PRO plus the biofungicide activity of Integral®
- Unique and exclusive package and bladder system provides up to 60 days of on-seed survivability
- Low application volume and preinoculant convenience

## Nodulator PRO

### Bioactive ingredient

*Bradyrhizobium japonicum*

### Formulation

Liquid

### One case contains

1 x 3 L PRO inoculant  
1 x 3 L PRO conditioner

## Integral biofungicide

### Bioactive ingredient

*Bacillus amyloliquefaciens*

### Formulation

Liquid

### Packaged separately

1 x 400 ml bottle Integral biofungicide

### Storage

Protect cased product from temperatures below 2°C and above 10°C. Do not allow this product to freeze.

## Crops

Soybeans

## Treatment

Applied on-seed exclusively by bulk seed treaters.

## Benefits

Nodulator PRO contains a minimum of  $1 \times 10^{10}$  viable cells of *Bradyrhizobium japonicum* per gram.

Packaged separately: Integral biofungicide contains *Bacillus amyloliquefaciens* (no less than  $2.2 \times 10^{10}$  viable spores per ml) and is required for the suppression of seedling diseases caused by *Rhizoctonia* and *Fusarium* spp.<sup>1</sup>

Research has shown that applying the two beneficial biologicals present in the Nodulator PRO preinoculant system can result in up to 6% more yield than the competition.<sup>2</sup>

<sup>1</sup> The biological fungicide activity of Integral is a PMRA registered label claim in Canada.

<sup>2</sup> Source: BASF, 76 station years (n sites x n years).

## Application rates

One case of preinoculant will treat 4,536 kg (10,000 lbs) of seed.

	Nodulator PRO (inoculant + conditioner)	Integral
Rate per 100 kg seed	130 ml <sup>3</sup>	9 ml

<sup>3</sup> Please refer to the product label for application rates without pesticides, as 139 ml/100 kg is not sufficient for even seed coverage and requires additional liquid volume (water and/or pesticide).



Source: BASF trials, 2007

# Nodulator® PRO

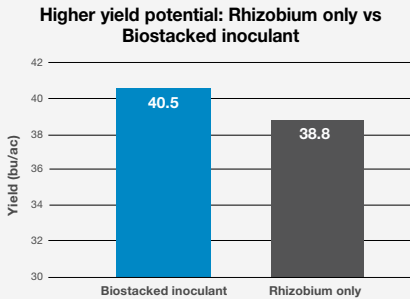
The professional Biostacked® Inoculant system

## Maintaining diversity

The beneficial bioactive organisms, *Bradyrhizobium japonicum* and *Bacillus amyloliquefaciens* are common to Canadian soils. No BASF inoculant products sold in Canada contain genetically modified material.

## Performance

Research shows that Nodulator PRO inoculant plus Integral promotes higher yield potential.



Source: BASF, 76 Station Years (n sites x n years)

## For more information

**AgSolutions** Customer Care  
Call: 1-877-371-BASF (2273)

Visit: [agsolutions.ca](http://agsolutions.ca)

## Directions for use

### When applying as a standalone treatment (no seed treatment)

With slurry tank agitator (or re-circulation pump) turned on, thoroughly mix the appropriate volumes of Nodulator PRO liquid inoculant with the Nodulator PRO conditioner, then add the separately packaged Integral biofungicide and non-chlorinated<sup>4</sup> water. Continuous and gentle agitation throughout the mixing and application process will enhance application and survival characteristics.

Calibrate pumps and metering system to apply a total of 326 ml/100 kg to seed.

<sup>4</sup> Municipal water sources do contain chlorine; however it can be used in combination with biologicals if allowed to sit exposed to the environment (e.g. in open tank) for a minimum of 24 hours to allow for chlorine to gas off.

### When applied with additional seed treatment(s)

Nodulator PRO preinoculant plus Integral for soybeans must be applied at a rate of 139 ml/100 kg (2.0 fl oz per 100 lbs) of seed with no additional water as long as the total liquid volume being applied (Nodulator PRO plus all other seed treatment actives/polymers/colourants) is at least 326 ml/100 kg (5.0 fl oz per 100 lbs) of seed.

Both a wet sequential (also known as simultaneous), using a separate application tank for the active chemicals/polymers/colourants (preferred), or a tank mix can be used as application methods for this product.

If a tank mix application method is used, do not slurry the mixture for greater than 4 hours prior to application to the seed.

For extended days on seed **we only recommend** a wet sequential (also known as simultaneous) application and keeping the inoculant in a separate application tank. In this tank, the inoculant must be applied within 24 hours.

## Application tips

The non-pesticide containing slurry should ideally be used during the same day of mixing, within a maximum of 24 hours. The temperature of the slurry should not exceed 20°C.

Ensure seed is clean to reduce bridging.

**To ensure maximum survival of biological components, store treated seed in a cool (can be below freezing), dry, covered and unheated storage area close to floor level.**

On-seed compatibility of Nodulator PRO preinoculant plus Integral biofungicide is dependent on application method and temperature at which seed is packaged and stored.

## Follow crops

No follow-crop restrictions.

## Seed treatment compatibility

Seed Treatment	Nodulator PRO system on-seed survivability
ApronMaxx® RTA	60 to 105 days
CruiserMaxx® Vibrance® Beans	60 to 105 days

Some seed treatments are harmful to liquid inoculants and the application method can affect the days on seed compatibility. Please see respective product labels or call **AgSolutions®** Customer Care for further information.

## Always read and follow label directions.

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