

Nodulator® PRO 100

Liquid Preinoculant system for soybean

Nodulator® PRO 225

Liquid Preinoculant system for soybean

Nodulator PRO 100 preinoculant plus Integral and Nodulator PRO 225 preinoculant plus Integral – Professional Application Guidelines

Nodulator® PRO 100 and Nodulator PRO 225 preinoculants plus Integral® biofungicide are for soybean growers looking for the convenience of bulk soybean seed, treated at a professional retail treatment site. They are also ideal for those who are in need of high quality Biostacked® preinoculant products with longer on-seed survivability of rhizobia. To ensure growers receive all the Biostacked benefits of Nodulator PRO 100 plus Integral or Nodulator PRO 225 plus Integral, it is important that all three components are applied to the seed. The unique bladder of inoculant is the base of the application, the bladder of conditioner extends the days on seed and the bottle of Integral, which is packaged in a separate case, is required for seedling disease suppression.

Product features

- Both Nodulator PRO 100 plus Integral and Nodulator PRO 225 plus Integral are liquid Biostacked preinoculants for soybeans. They provide the benefits of *Bradyrhizobium japonicum* and suppression of seedling disease complex caused by *Rhizoctonia* and *Fusarium* spp. when used in combination with Integral, the PMRA-registered liquid biofungicide.
- Exclusive package and bladder system. The inner lining was developed to provide very high oxygen permeability for extended rhizobial survival and the outer liner layer provides protection.

Nodulator PRO 100

- A total application rate of 139 ml/100 kg of seed (130 ml Nodulator PRO 100 plus 9 ml of Integral) provides better performance and a smooth transition through treatment equipment, to reduce bridging of seed and increase convenience.
- Convenient on-seed survivability of up to 100 days.

Nodulator PRO 225

- A total application rate of 313 ml/100 kg of seed (304 ml Nodulator PRO 225 plus 9 ml of Integral) provides better performance and a smooth transition through treatment equipment, to reduce bridging of seed and increase convenience.
- Convenient, market-leading on-seed survivability of up to 225 days.

Packaging and application rate

	Nodulator PRO 100 (inoculant + conditioner)	Integral	Nodulator PRO 225 (inoculant + conditioner)	Integral
Case Size	1 x 3 L PRO 100 liquid inoculant + 1 x 3 L PRO 100 conditioner	1 x 400 ml bottle	4 x 1.55 L PRO 225 liquid inoculant + 1 x 0.68 L PRO 225 conditioner	2 x 10 L bottle
140k units/case	200	200	100	9800
Rate/100 kg seed	130 ml ¹	9 ml	304 ml	9 ml

¹ Please refer to the product label for application rates without pesticides, as 139 ml/100kg is not sufficient for even seed coverage and requires additional liquid volume (water and/or pesticide).

Application guidelines and best practices

Store this product between 2°C to 10°C and away from direct sunlight while it is in retail packaging. **Do not allow this product to freeze.** Do not use inoculant that is past expiry date or that has not been correctly stored. Products must be used (applied to the seed) within 24 hours of being opened.

When applying as a standalone treatment (no seed treatment)

Prepare the slurry as directed on label:

Nodulator PRO 100

- 1 x 3 L Nodulator PRO 100 preinoculant plus 1 x 3 L Nodulator PRO 100 conditioner
- 1 x 400 ml bottle of Integral
- 8.8 L cool **non-chlorinated**² water

With the slurry tank agitator (or re-circulation pump) turned on, thoroughly mix Nodulator PRO 100 liquid inoculant with the appropriate volumes of Nodulator PRO 100 conditioner, then add the separately packaged Integral biofungicide and non-chlorinated² water. Continuous and gentle agitation throughout the mixing and application process will enhance application and survival characteristics. This non-pesticide containing slurry should ideally be used during the same day of mixing, and within a **maximum of 24 hours**. It is important that the temperature of the slurry does not exceed 20°C. Calibrate pumps and metering system to apply 326 ml/100 kg to seed.³

Nodulator PRO 225

- 4 x 1.55 L Nodulator PRO 225 preinoculant plus 1 x 0.68 L Nodulator PRO 225 conditioner
- 2 x 10 L bottles of Integral

With slurry tank agitator (or re-circulation pump) turned on, thoroughly mix the appropriate volume of Nodulator PRO 225 liquid inoculant with the Nodulator PRO 225 conditioner, then add the separately packaged Integral biofungicide. Continuous and gentle agitation throughout the mixing and application process will enhance application and survival characteristics. 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 10°C.

Calibrate pumps and metering system to apply a total of 313 ml/100 kg to seed.

When applying in combination with a seed treatment

Nodulator PRO 100

Nodulator PRO 100 preinoculant plus Integral for soybean 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 100 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.

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For extended days on seed, this product may only be applied as a wet sequential (aka simultaneous) application method using a separate application tank for the active chemicals/polymers/colourants. The inoculant must be applied within 24 hours of opening.

Storage of treated seed

Store treated seed with Nodulator PRO 100 plus Integral or Nodulator PRO 225 plus Integral **as cool as possible** (0°C to 10°C maximum) and away from direct sunlight. For more uniform temperature control, store treated seed as close to floor level as possible in a dry, covered and unheated storage area. If seed is not planted within maximum safe planting window (maximum of 100 days for Nodulator PRO 100 and 225 days for Nodulator PRO 225) depending on the combination of components being applied, the seed must be re-inoculated.

Guidance notes

- Ensure slurry is made up correctly and that no additional “non-approved” components are added.
- Use complete inoculant units (do not store “partially used” inoculant bladders for greater than 24 hours, and even in such situations store at 5°C to 10°C during this period).
- If pesticides are used, ensure you follow the planting window recommendations.
- Ensure seed is clean to reduce bridging.
- Load treated seed into gravity wagon, tenders, etc. as needed. Occasional movement of the load head will reduce dry down time/potential for seed bridging.
- Attach Integral and Nodulator PRO 100 or Nodulator PRO 225 seed tags to treated unit as per regulatory requirements.
- It is critical to keep inoculated seed cool and out of direct sunlight (e.g. tarped) if you are not planting it immediately to ensure maximum survival of the biological components that have been placed on the seed.
- At the end of the day, rinse (with warm water – no detergents) the tank, pump and lines.

Please note that this product is regulated by the CFIA under the Fertilizer’s Act. As such, CFIA agents have the right to take product and treated seed to ensure compliance with regulatory standards.

For updated seed treatment compatibility or more information on Nodulator PRO 100 or Nodulator PRO 225, please contact your BASF Sales Representative or call **AgSolutions**[®] Customer Care at 1-877-371-BASF (2273).

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² 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.

³ NOTE: While you may apply Nodulator PRO 100 plus Integral for soybean at a rate of as low as 139 ml/100 kg (2.0 fl oz per 100 lbs) of seed without the addition of water, both the evenness of seed coverage and rhizobial survival will be enhanced when total volume of liquid applied to the seed is 326 ml/100 kg (5.0 fl oz per 100 lbs) of seed.

Always read and follow label directions.