

VAULT[®] NP

Liquid Legume Inoculant for Soybeans



KEEP OUT OF REACH OF CHILDREN CAUTION

Avoid contact with eyes and skin. May be harmful if swallowed.
See Material Safety Data Sheet for additional information.
EMERGENCY CONTACT: CHEMTREC (800) 424-9300



DIRECTIONS FOR USE

● **PLANTER BOX APPLICATION:** Shake the product well, and apply to the seed at the rate of 2.1 fl. oz. / 50 lb. (62 mL x 23 Kg) of seed or 2.5 fl. oz. / 60 lb. (74 mL / 23.3 Kg).

● **BULK SEED APPLICATION:**

1. If the VAULT[®] NP inoculant is to be applied directly to soybeans from the bladder; refer to the enclosed pictograph. **a.)** remove bladder from the original carton. **b.)** place the bladder into the mesh bag (netting) that has been provided. **c.)** with the neck of the bladder protruding out. **d.)** draw-up the draw ribbon tightly around the neck of the bladder. **e.)** secure the tightened draw ribbon by tying a knot. **f.)** Remove cap from the bladder and replace with applicator flow valve. Before inverting the bladder position flow valve in the "off" position. **g.)** using the open "s" hook - included in the applicator kit - suspend the bladder by the mesh bag above the treating area so the end of the hose is just above the seed (for accurate application rates, ensure the hose is straight when dispensing inoculant.)
2. Adjust flow valve to match output of seed auger. **(See table below).**
3. To ensure adequate mixing of seed and inoculant it is recommended to run auger at 50% capacity.
4. Assess the application rate several times during inoculation to ensure correct target flow rate.

VAULT NP Flow Valve Settings

| Flow Valve Setting | VAULT NP Flow Rate | | Approx. Seed/Auger Flow Rate | | |
|--------------------|--------------------|-----------|------------------------------|---------|-----------------------------------|
| | mL/min | Fl oz/min | Kg/min | Lbs/min | Approx. units Bu/min. 50 lbs/min. |
| 1 | 360 | 12 | 131 | 286 | 5 (6) |
| 2 | 860 | 29 | 313 | 690 | 11 (14) |
| 3 | 1340 | 45 | 487 | 1071 | 18 (21) |
| 4 | 1660 | 56 | 604 | 1333 | 22 (27) |
| 5 | 1780 | 60 | 647 | 1428 | 24 (28) |
| 6 | 2030 | 68 | 738 | 1619 | 27 (32) |

Plant all treated seed as soon as possible, and within a maximum of 24 hours following inoculation.

● **VAULT NP EXTENDER: (Packaged and sold separately)**

VAULT NP EXTENDER can be used with VAULT NP Liquid Soybean Inoculant to extend the shelf life of VAULT NP Liquid Soybean Inoculant on soybeans. VAULT NP EXTENDER is ONLY to be used with VAULT NP Liquid Soybean Inoculation. Proper application equipment MUST be used. Contact your distributor/retailer for additional information.

1. Mix 73.6 fl. oz. (2.17 L) of VAULT NP EXTENDER with 3.3 gal. (12.5 L) of VAULT NP Liquid Soybean Inoculant in a mix tank, or any such container, in which thorough mixing can be accomplished. Continuous agitation is recommended throughout the mixing and application process.
2. Mix only as much inoculant as can be used in one 24-hour period.
3. Apply this mixture to the seed at a rate of 4.94 fl. oz./cwt (3.23 mL/kg). If used in combination with seed treatments, i.e. ApronMaxx[™] RTA[™], Warden RTA[™] etc., Refer to manufacturer's labels of these products for appropriate application recommendations.
4. Quantity of seed treated: 73.6 fl. oz. (2.17 L) of VAULT NP EXTENDER plus 3.3 gal (12.5 L) of VAULT NP Liquid Soybean Inoculant treats 10,000 lbs. (4545 kg) of Soybeans.
5. To match application rates with seed flow, see VAULT NP with VAULT NP EXTENDER table, **(See table below).**

VAULT NP WITH VAULT NP EXTENDER FLOW VALVE SETTINGS

| Flow Valve Setting | Flow Rate | | Approx. Seed/Auger Flow Rate | | |
|--------------------|-----------|-----------|------------------------------|---------|-----------------------------------|
| | mL/min | Fl oz/min | Kg/min | Lbs/min | Approx. units Bu/min. 50 lbs/min. |
| 1 | 360 | 12 | 111 | 243 | 4 (5) |
| 2 | 860 | 29 | 266 | 587 | 10 (12) |
| 3 | 1340 | 45 | 414 | 911 | 15 (18) |
| 4 | 1660 | 56 | 513 | 1133 | 19 (22) |
| 5 | 1780 | 60 | 550 | 1214 | 20 (24) |
| 6 | 2030 | 68 | 627 | 1376 | 23 (27) |

Refer to VAULT NP EXTENDER application guide for additional information.

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Liquid Legume Inoculant for Soybeans

IN-FURROW DIRECTIONS

The concentrate must be diluted with cool, clean, dechlorinated water and applied as indicated in the following instructions.

The 3.3 gallon (12.5 liter) size treats 50 acres (20.23 ha) when applied in-furrow regardless of row width. Dilute in as much water as possible: 10-20 gallons per acre is recommended. At the 10 gallon dilution level, the application rate is 70 fluid ounces of diluted inoculant per 1000 linear feet of row for 30 inch rows, or 35 fluid ounces per linear feet of row for 15 inch rows. The diluted inoculant must be placed in the seed furrow and covered along with the seed. **Please adjust the application rate based on seed size.**

• IN-FURROW APPLICATION

A. Clean. Ensure that the liquid application machinery is fully flushed of chemical residues before adding inoculant to spray tanks.

B. Configure. Configure the sprayer for in-furrow application. Select and install an appropriate flow regulator (orifice) disk in order to achieve a constant, uninterrupted stream of liquid into the furrow. Carefully adjust the position and flow of the liquid inoculant so that it falls directly onto the seed surface prior to covering in the furrow. Product efficacy may be limited if the inoculant is either applied above, or to the side of the seed in the furrow.

C. Mix. Prior to use, shake the product well in order to re-suspend any settled out components. Do not open the unit until required. Pour the complete contents into the spray tank. Adjust the volume of the spray tank to the required level using cool, dechlorinated water. Ensure that the inoculant is thoroughly mixed prior to use. To avoid any settling out of the nitrogen fixing bacteria, ensure that the spray tank volume is continually agitated. The diluted inoculant must be used within 24 hours. Do not allow diluted tank mix to exceed 80°F (26°C).

D. Select rate. The application rate per acre will vary according to row width. For guidance regarding specific application details and treatable areas, **See in-furrow application section above).**

GUARANTEE

This product contains a minimum of 3×10^9 viable cells of *Bradyrhizobium japonicum* per gram.

SEED TREATMENT COMPATIBILITY

Some seed treatments are harmful to liquid inoculants. Contact your dealer/manufacturer or check our Web site, www.beckerunderwood.com for current details. Please observe planting window recommendations for optimal responses.

STORAGE/PRECAUTIONS

Inoculants are live organisms. Store between 40°-77°F (4°-25°C) away from direct sunlight. Do not allow product to freeze. For more uniform temperature control, store at floor level. Ensure that inoculant is stored correctly prior to use. Once opened, use within 24 hours. Do not use inoculant that is past its expiration date or that has not been properly stored. Unless otherwise directed, do not mix inoculant with fertilizers or pesticides. Under adverse or stress planting conditions (hot, dry field conditions) it is suggested to increase the inoculant application rate.

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BECKER UNDERWOOD, LTD
801 Dayton Avenue
Ames, IA 50010
Tel.: (800) 232-5907 • Fax: (515) 232-5961
www.beckerunderwood.com