

Vault® HP plus Integral®

Biological Seed Treatment

Improved Soybean Nodulation and Nutrient Uptake Means More Yield Potential

Benefits of Vault® HP for Growers

Robust Rhizobial Inoculant

- Highly effective *Bradyrhizobium japonicum* produced fresh for each season
- Minimum guaranteed count of 10 billion (1.0×10^{10}) colony forming units (CFUs) of *rhizobia* per mL through product expiration

Rhizobial Enhancer

- Stimulates *rhizobia* after planting for improved root nodulation and extended on-seed survival

Integral® Biofungicide

- Extends suppression of *Rhizoctonia* and *Fusarium* root rots and enhances nodulation and nutrient uptake

Benefits of Vault HP to Treaters

Ultra-Low Application Rate

- Just 2.0 fl oz/cwt or 0.93 fl oz/140k seed unit (at 3,000 seeds per lb) OR 1.14 fl oz/cwt when applied without extender component

Versatile Treatment Size Options

- 2 x 200 package size – Treats 20,000 lbs of soybean seed (400 – 50 lb units)
- 2 x 100 package size – Treats 10,000 lbs of soybean seed (200 – 50 lb units)
- 4 x 50 package size – Each set treats 2,500 lbs for smaller-volume operations (200 – 50 lb units total)

Longest Days-on-Seed Rating for *Rhizobia*

- Industry-leading 125+ days on seed survival*



For maximum nitrogen fixation and improved yield potential, Vault HP plus Integral is formulated with *rhizobia*, produced fresh for each growing season.

*60 days if used without extender component for lower application rate

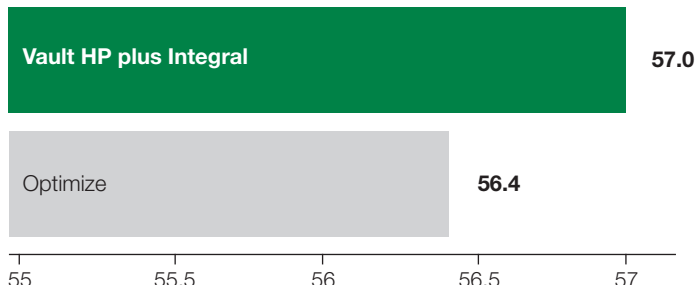
 **BASF**

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Technical Information Bulletin

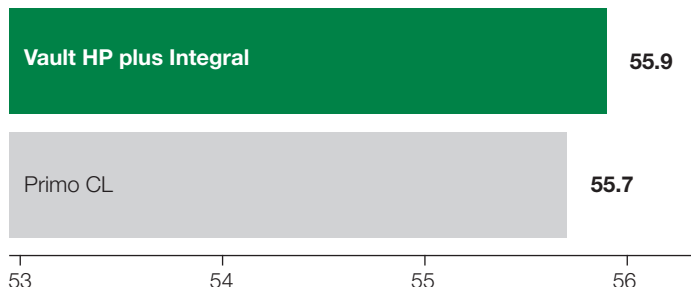
Vault® HP plus Integral® outperforms competition across multiple years and geographies.

Vault HP plus Integral Advantage vs. Optimize® 2009–2017 (n=292)



2009-2017, 292 University, Company, and Independent Research Trials. AR, IA, IL, IN, KS, LA, MI, MN, MO, MS, ND, NE, OH, OK, SD, WI

Vault HP plus Integral Advantage vs. Primo® CL 2012–2017 (n=139)

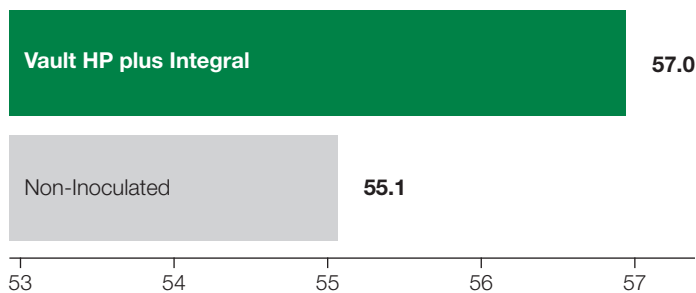


2012-2017, 139 University, Company, and Independent Research Trials. AR, IA, IL, IN, KS, LA, MI, MN, MO, MS, ND, NE, OH, SD, WI



To learn more about crop protection products from BASF, visit www.agriculture.basf.com

Vault HP plus Integral Advantage vs. No Inoculant 2009-2017 (n=315)



Vault HP treated trials yielded 1.9 more bushels per acre resulting in \$16.62 (at \$8.75/Bushel) additional per acre income compared to non-inoculated soybeans. That's over a 4:1 return on investment.¹

2009-2017, 315 University, Company, and Independent Research Trials. AR, IA, IL, IN, KS, LA, MI, MN, MO, MS, ND, NE, OH, OK, SD, WI

¹ Vault HP cost based on \$4.00/treated acre.

Best Use Recommendations

- Use Rate: 2 fl oz/cwt (0.93 fl oz/140k seed unit*) or 1.14 fl oz/cwt without extender
- Use product within 24 hrs of opening
- DO NOT ALLOW TO FREEZE
- Do not apply to frozen soybeans
- Keep inoculants and inoculated seed out of direct sunlight
- For more uniform temperature control, store at floor level
- Store product between 40°-77° F (4°-25° C)
- For commercial seed treatment only
- For best on-seed survival of *rhizobia* do not tank mix with seed treatment actives
- Use with Flo Rite® 1706 plantability polymer for best seed handling, flow, seed placement, and retention of actives

*at 3,000 seeds per lb.

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