

Launcher PRO™ Improves Yield in a Corn-Soybean Rotation



Results. Expect it.™

SITUATION

Conventional wisdom holds that growers in a corn-soybean rotation can rely on native bacteria for adequate soybean nodulation and nitrogen fixation. However, that theory is being challenged by the performance of new inoculant technologies like Launcher PRO™. Launcher PRO has proven to outperform native bacteria in five key performance areas and the ultimate end of season measurement, yield.

“Not all inoculants have equal performance, and relying on what is in the soil simply because the producer is in a corn-soybean rotation may result in a high cost in the form of a loss in yield potential.”

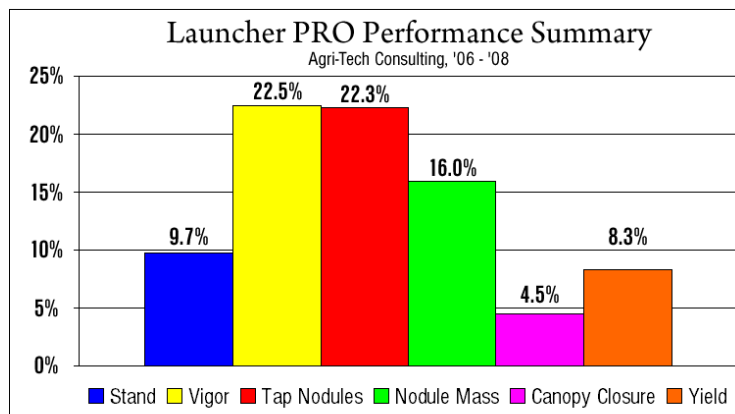
-Dr. Tim Maloney, Ph.D., Agri-Tech Consulting

FIVE PERFORMANCE INDICATORS

Inoculation with Launcher PRO differentiates itself early in the growing season with critical advantages:

Increase with Launcher PRO

1. Increased plant stand	9.7%	More plants to produce more grain
2. Improved early plant vigor	22.5%	Healthier plants reaching reproductive stages faster
3. More tap root nodules	22.3%	Nodules from highly efficacious commercial strains
4. Heavier nodule mass	16.0%	Bigger nodules = more efficient nitrogen fixation
5. Faster canopy closer	4.5%	Conserves water resources and better sunlight utilization



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PROBLEMS WITH NATIVE BACTERIA

Not all bacteria are created equal for producing nitrogen. This is especially the case for native rhizobia leftover in the soil, whose sole objective is to survive. These rhizobia have also been exposed to the environment, weakening and making them less capable of infecting emerging root hairs and efficiently fixing nitrogen. In addition, native bacteria are spread throughout the soil profile, significantly reducing their infection at the crown of the tap root, the best location for nodules to provide nitrogen to the plant and for the plant to deliver energy to the nodules.

INOCULATION WORKS

Commercial strains of bacteria selected for Launcher brand inoculants are very active and have a specific function, to fix nitrogen. They are simply more effective and infective than native strains. They're applied in a high concentration around the seed so they can aggressively infect the root hair when it emerges for maximum nodulation.

“Chances are you'll make money 90% of the time with inoculants. We recommend everybody use them.”

-Professor Jim Beuerlein
The Ohio State University

LAUNCHER PRO™ DELIVERS RESULTS

Over six years of research and in-field use prove that Launcher PRO delivers results in five indicators of performance and one true measurement, YIELD. Year after year, in a controlled, replicated plot environment on land that has been in a corn-soybean rotation for over 10 years, Launcher PRO delivered results, producing an average yield increase of 8.3%!

A COMPLETE SYSTEM

Launcher PRO is a complete soybean enhancement system. It combines the highly effective components of:

- **Launcher™** Liquid Soybean Inoculant
- **PBX™** Advanced Bacteria Protector to ensure maximum bacterial survival before and after planting
- **ProSurge™** Catalytic Seed Treatment for growth promotion and stress management



Specialized Chemistry for Seed Enhancement