

ProAct™

Plant Health Regulator

Usage Tip Sheet Dry Edible Beans



PRODUCT OVERVIEW

ProAct™ is a **Plant Health Regulator** based on **Harp-N-Tek™**, a proprietary harpin protein technology from Plant Health Care. When ProAct is applied to dry edible beans, the harpin protein active ingredient binds to harpin receptors on the plant. These receptors respond to harpin as if it were a pathogen, and this reaction initiates an “inside-out plant response” that turns on a plant’s own intrinsic growth and stress-defense capabilities.

MODE OF ACTION

→ Harpin-induced **plant growth effects** can include increased ion exchange reaction; elevated protein, sugar, and starch transportation; increased nutrient uptake; increased net photosynthesis; and physiological changes associated with transpiration and respiration.

→ Harpin-induced **defense effects** include hypersensitive response; ion exchange and oxidative burst, which induces production of active oxygen and K/Cl effluxes and Ca/H influxes; induction of salicylic acid accumulation locally and systemically; activation of multiple plant defense pathways, including salicylic acid pathways, jasmonic acid pathways, and phenylalanine ammonia-lyase (PAL) mediated pathways; as well as novel gene induction and pathways.

→ Unlike most crop inputs, ProAct’s performance is not a function of plant absorption or residual; in fact, there are no detectable residues of harpin within hours of application. Therefore, ProAct is rain-fast after 30 minutes or when spray residues have dried.

MIXING ORDER AND COMPATIBILITY

- After ensuring pH has stabilized between 5 and 10, add ProAct to the tank **first**.
- ProAct is compatible with many products. For a complete list, contact your Plant Health Care representative or your local dealer.

PACKAGING, FORMULATION, AND REGULATORY INFORMATION

- Available in a 10 or 20 ounce foil bag. Formulated as a wettable dry granule with 1% harpin_{αβ} protein.
- Excellent safety profile, easy to use, and **not** a restricted use material; REI is 4 hours; PHI is 0 days.

USE RATE, TIMING, AND HANDLING

- **USE RATE:** Apply ProAct at 1 oz per acre.
- **TIMING:** Make a single application at first bud break (before first bloom).
- **MIX AND USE PROMPTLY:** Within 8 hours of mixing.
- **PARTIAL BAGS:** Reseal opened packets to minimize exposure to air and moisture. Use within 3 weeks.

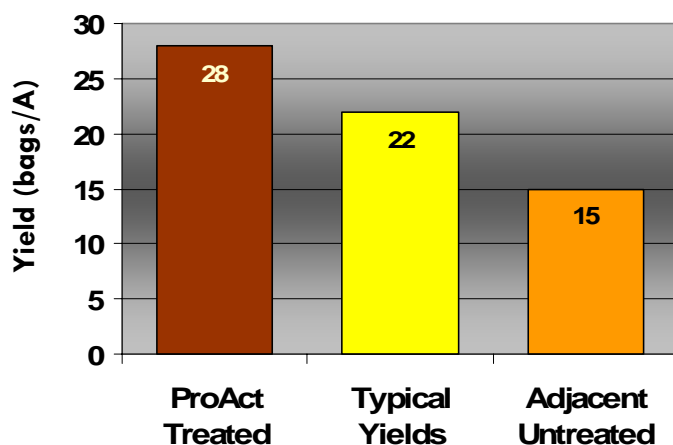
PRODUCT PERFORMANCE SUMMARY

ProAct offers a new technology to turn on plant defenses and growth systems from the inside-out.

- ✓ **Turn On Plant Defenses** and protect your dry beans from the “Inside-Out.”
- ✓ **Enhance Crop Production** and achieve higher yields.
- ✓ **No Phytotoxicity** – ProAct has never been found to cause phytotoxicity or crop injury.

Grower trials using this program have given consistent increases in yield on navy beans, black turtle beans, and pinto beans.

Results from Grower Trial in Minnesota



Always read and follow label instructions before using this product.

www.planthealthcare.com 1-800-421-9051

PHC® AGRICULTURAL DIVISION

