

# 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<sub>αβ</sub> 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.

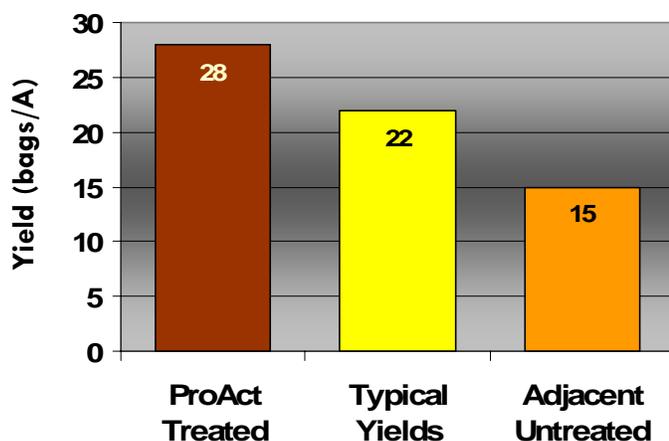
### PRODUCT PERFORMANCE SUMMARY

**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

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