

# ProAct<sup>®</sup>

FOLIAR SPRAY

## Improves Dry Bean Yield and White Mold Control

### About ProAct

ProAct contains 4 Harpin proteins, which are, in nature, produced by pathogenic bacteria and recognized by plants as a signal that they are under attack. Plants respond to harpins by activating defensive and growth (metabolic) pathways, promoting improved pod set and retention, and increasing resistance to disease. All of which add up to higher yields, improved white mold control and a healthier more vigorous crop.

### Maximizes White Mold Control

With ProAct, effective white mold control just got better. When combined with Topsin M for white mold control, ProAct provides an alternative mode of action - activating the plant's own defenses. These include such steps as thickening cell walls and producing defensive compounds. In a 3 year study, ProAct combined with Topsin M statistically reduced white mold incidence compared to Topsin M alone.

### More Consistent, Higher Yields at Harvest

ProAct treated bean plants consistently yield higher than untreated plants. An application of ProAct increases photosynthetic activity, nutrient movement and reproductive responses; resulting in increased pod set and retention, thereby allowing dry beans to reach their maximum yield potential. In 24 small plot trials, each with 8 replicates, ProAct combined with Topsin M was 100% successful, providing an average yield increase of 25%. When white mold was present, the yield was 11% higher than using Topsin alone.

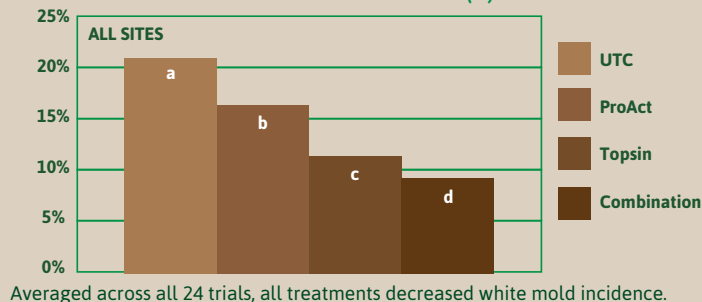
### The Many Benefits of ProAct:

ProAct is the foundation for a yield and white mold control program in dry beans. ProAct helps you optimize disease control, plant health and yield.

- Consistent yield improvement
- Improved white mold control
- Novel mode of action for disease control
- Healthier plants more resistant to seasonal stresses
- Convenient application methods
- Zero Residue – EPA food tolerance exempt

### Control of White Mold in Pinto Beans with ProAct and Topsin

Three Year Summary Across Studies  
Results: White Mold Incidence (%)



(541)-607-5097 :: [www.sym-agro.com](http://www.sym-agro.com)

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Sustainable solutions for agriculture.

## ProAct Use Guide for Dry Beans

**USE RATE:** 1 oz. per acre

**APPLICATION:** Foliar spray, Chemigation or Aerial

**Yield Improvement:** Make a single 1 oz. application of ProAct at first bud break (before first bloom).

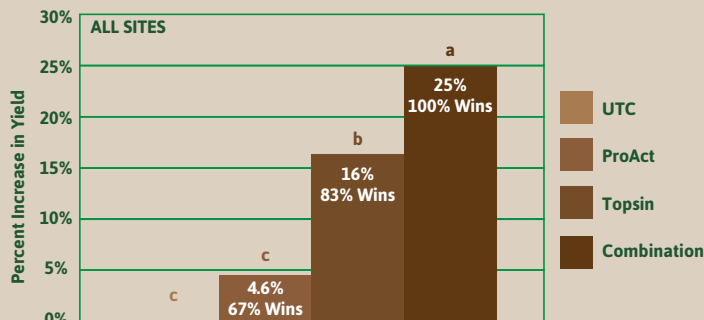
**White Mold Suppression & Yield:** Make a single application of ProAct with or without TOPSIN M® 70WP@ 1.5 lb/acre when 100% of the plants have 1 or more open blooms

**Water volume and pH:** Apply in sufficient water volume for thorough foliage coverage without runoff. Spray tank water pH should be between 5-10.

**Zero Residue Product:** ProAct is EPA food tolerance exempt and has no export restrictions.

### Control of White Mold in Pinto Beans with ProAct and Topsin

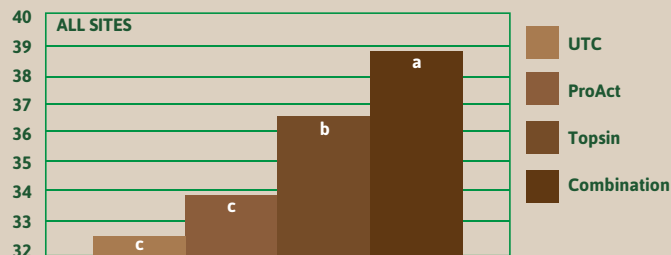
Three Year Summary Across Studies  
Results: Percent Increase in Yield



All treatments increased yields. The Combination increased yields more than the sum of the two products alone, demonstrating synergy.

### Control of White Mold in Pinto Beans with ProAct and Topsin

Three Year Summary Across Studies  
Results: Yield (Bushels/Acre)

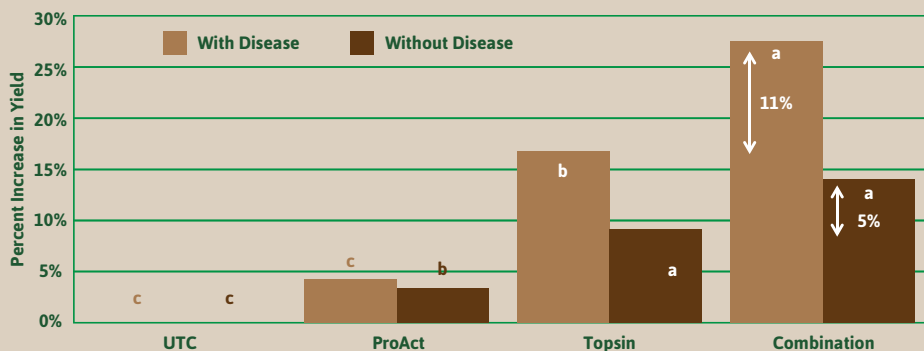


All treatments increased yields. The increase was statistically significant for treatments containing TOPSIN and the tank mix was statistically better than the ingredients alone.

### Control of White Mold in Pinto Beans with ProAct and Topsin

Three Year Summary Across Studies

Results: Yield (% Increase) Disease v. Disease Free Sites



ProAct added more to TOPSIN in the presence of white mold than when white mold was absent, but added under both circumstances.



Always read and follow label instructions.  
Ask your crop advisor how ProAct can benefit your apple crop and for more details visit [Sym-Agro.com](http://Sym-Agro.com) or call Peter Bierma (OR) at 503-799-4551.

Available from your local Ag Supplier



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Topsin M is a registered trademark of Nisso America, Inc.