

PTM Insecticide

For Tip Moth Control in Southern Forests

Harry Quicke
BASF

Agricultural Products

 **BASF**
The Chemical Company



Photograph by Don Grosman

PTM Insecticide



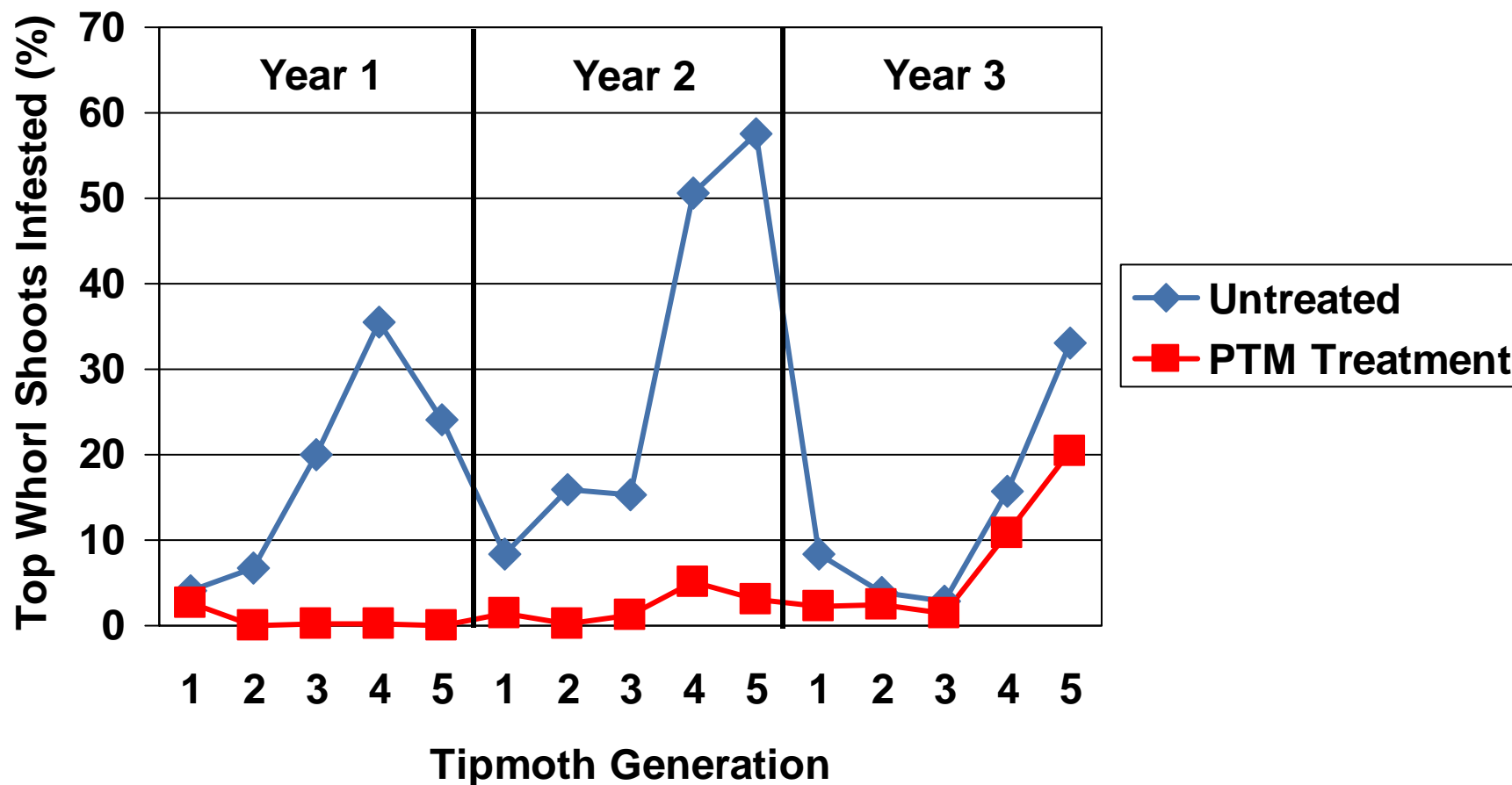
- Registered for tip moth control in pines in 2007
- A water based suspension concentrate
- Use rate:
 - 21 fl oz (621 ml) per acre OR 1.4 ml per tree
- Apply at least 3 inches below ground into the rooting zone of each tree
- Apply at time of planting or soon after planting
 - Trees are protected several weeks after application
- Dilute with water
- Total volume of water + PTM Insecticide per tree:
 - 0.5 fl oz (15 ml)

PTM Insecticide

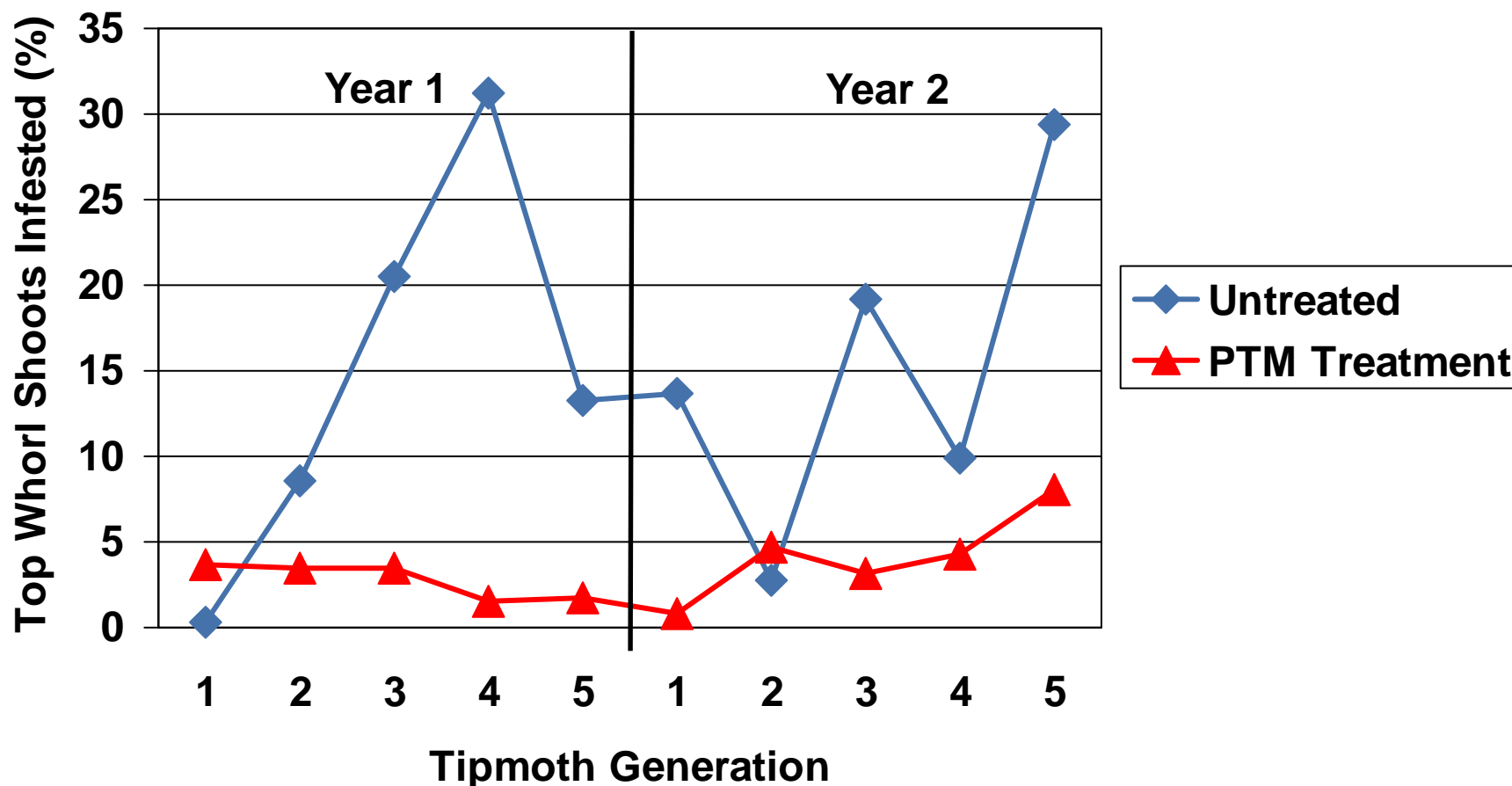


- Phenyl pyrazole insecticide family
- Attacks insect nervous system
- Systemic against some highly susceptible pests
- Movement mainly upwards in xylem

PTM Plant Hole Application

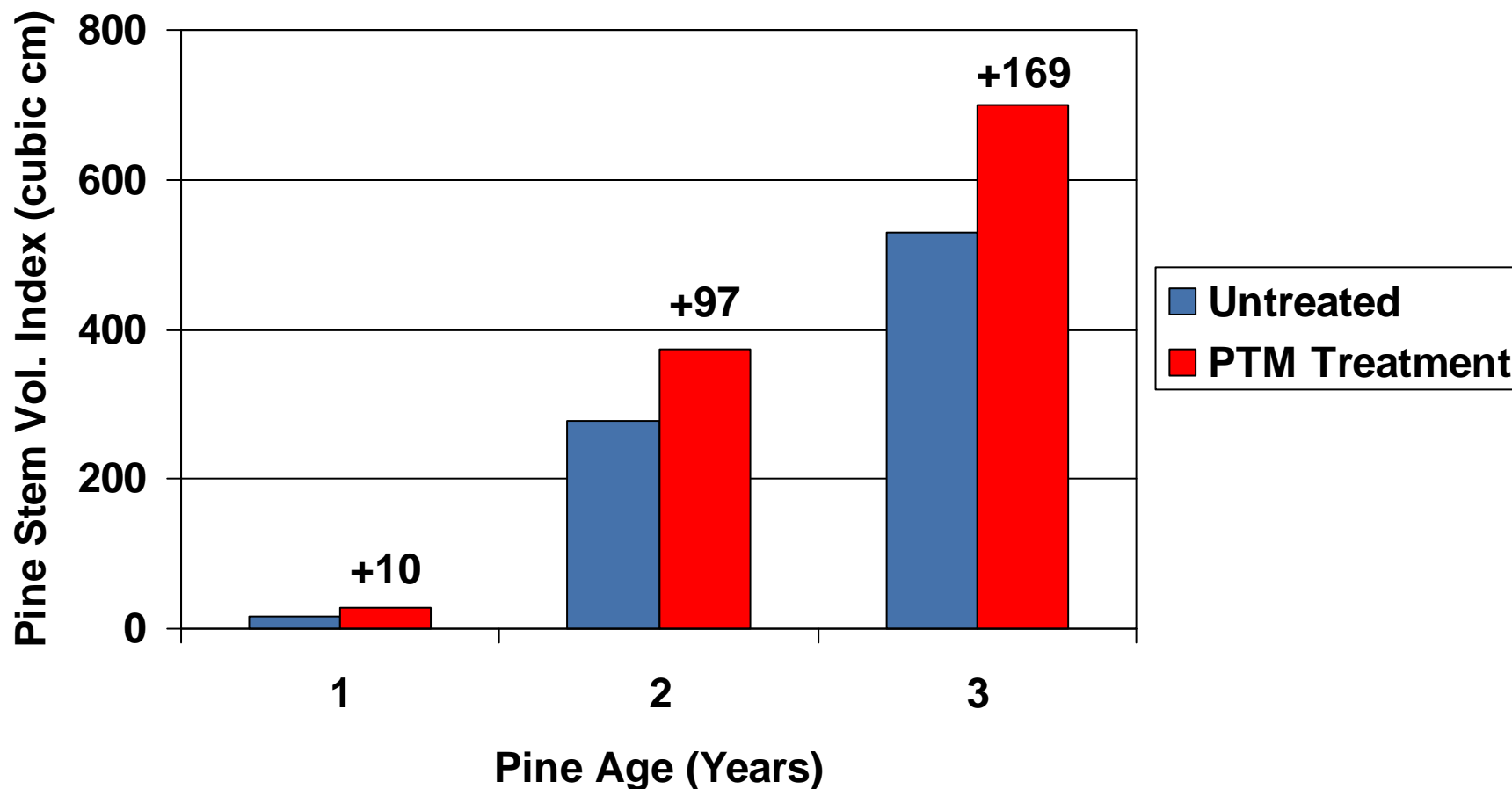


PTM Soil Injection Two Years of Protection

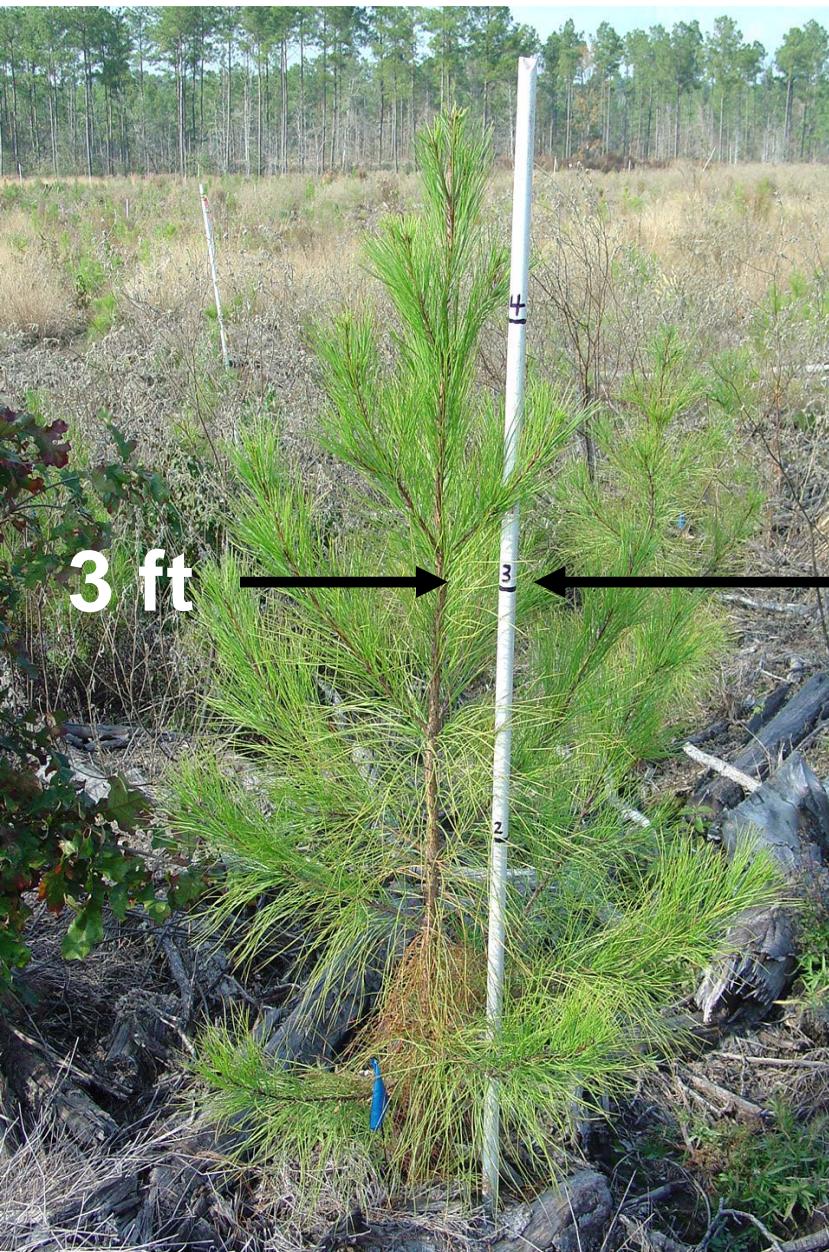


West Gulf Pine Pest Management Cooperative. Mean of 2 installations.

Pine Response to PTM

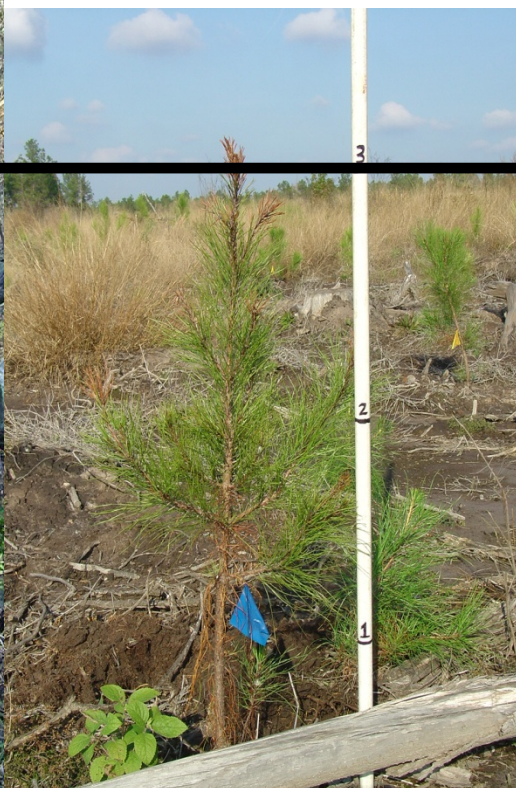


West Gulf Pine Pest Management Cooperative. Mean of 4 installations.



3 ft

Untreated



Treated with PTM

PTM Batch Tank



PTM Application

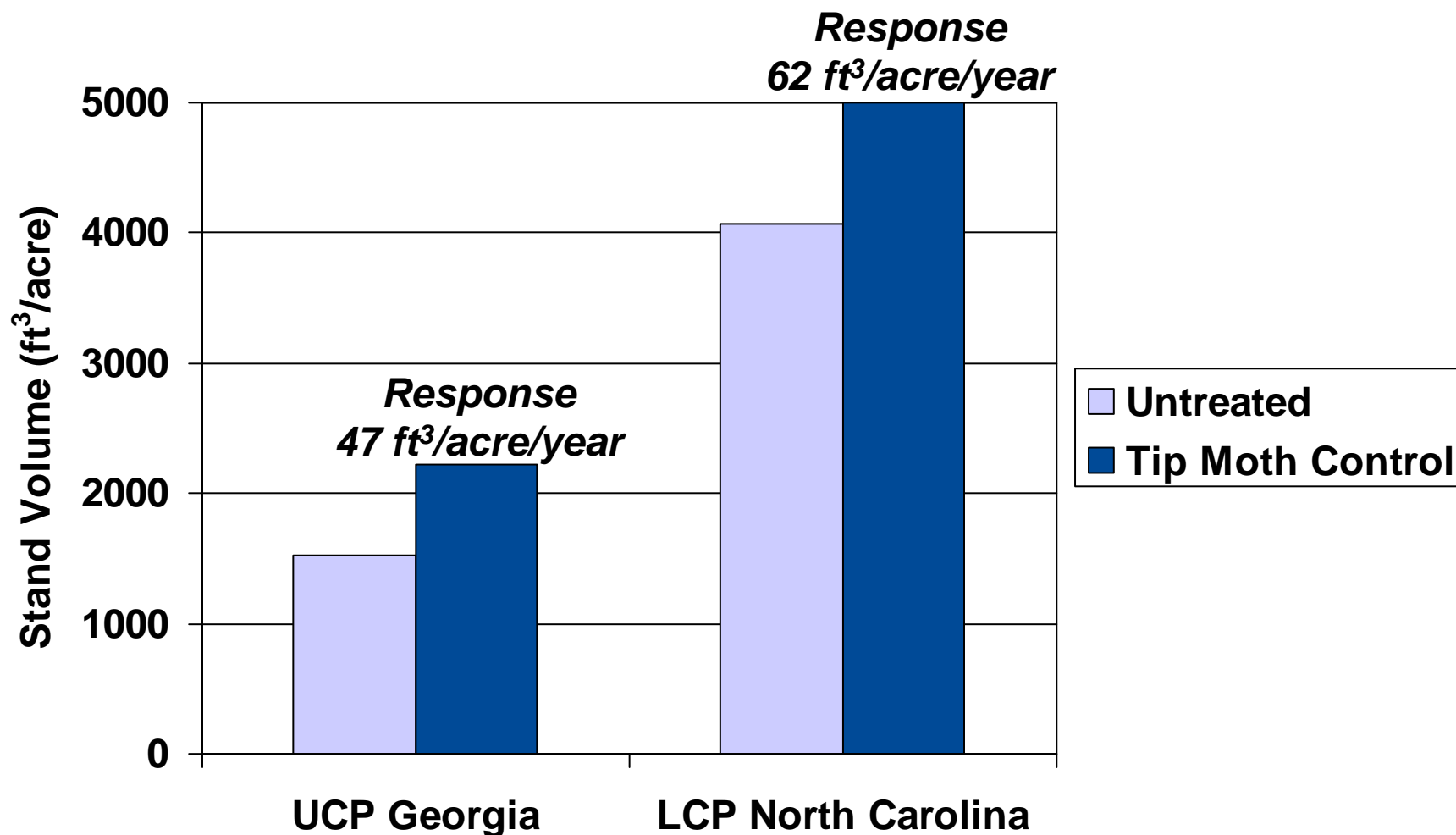


Mechanical tree planter adapted to apply PTM



Response to Tip Moth Control

Loblolly Pine at Age 15 Following Control in Years 1-3



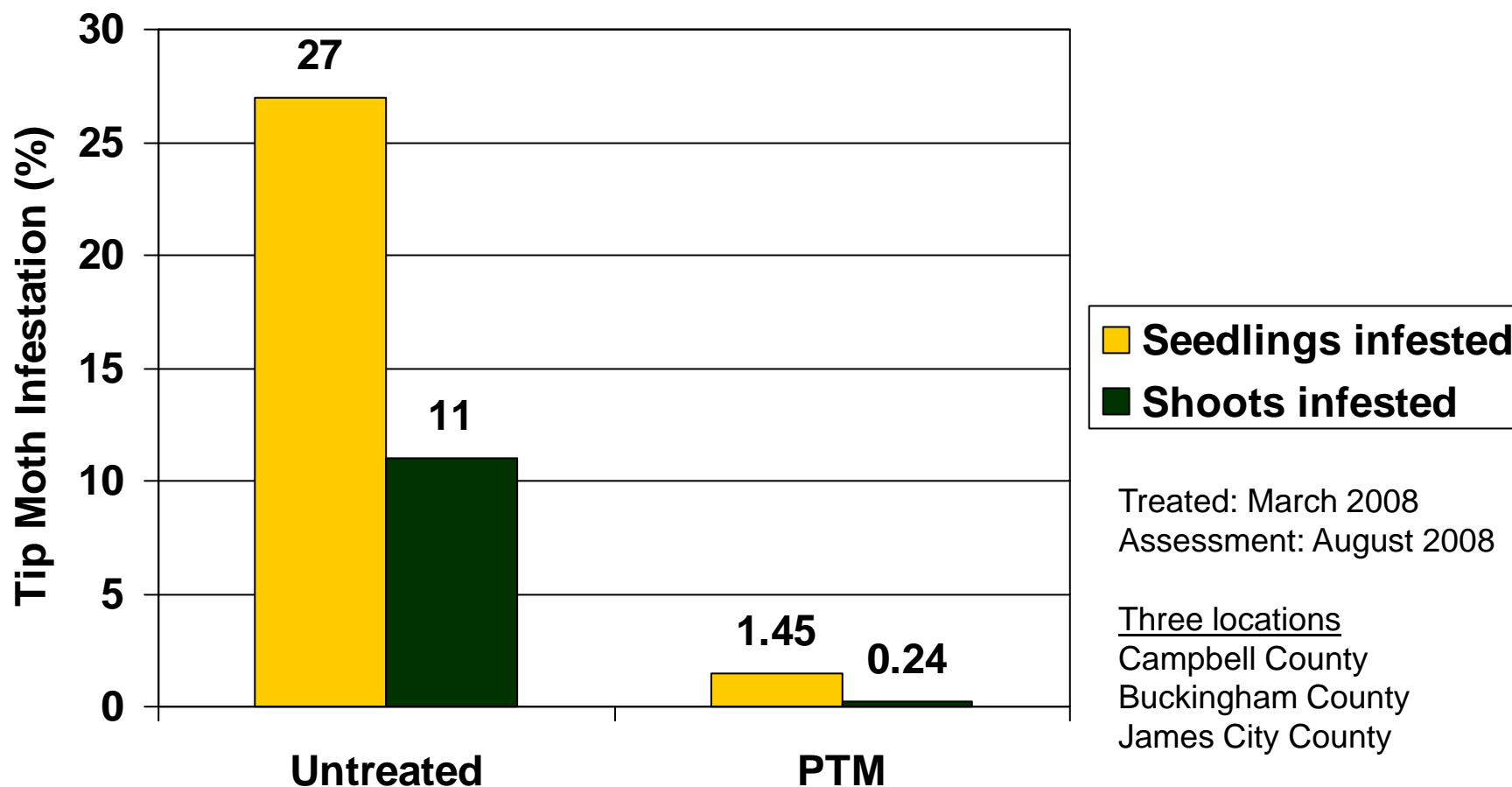
Loblolly Pine Response to Tip Moth Control



Tip Moth Impact on Stem Form



Virginia Dept Forestry Study



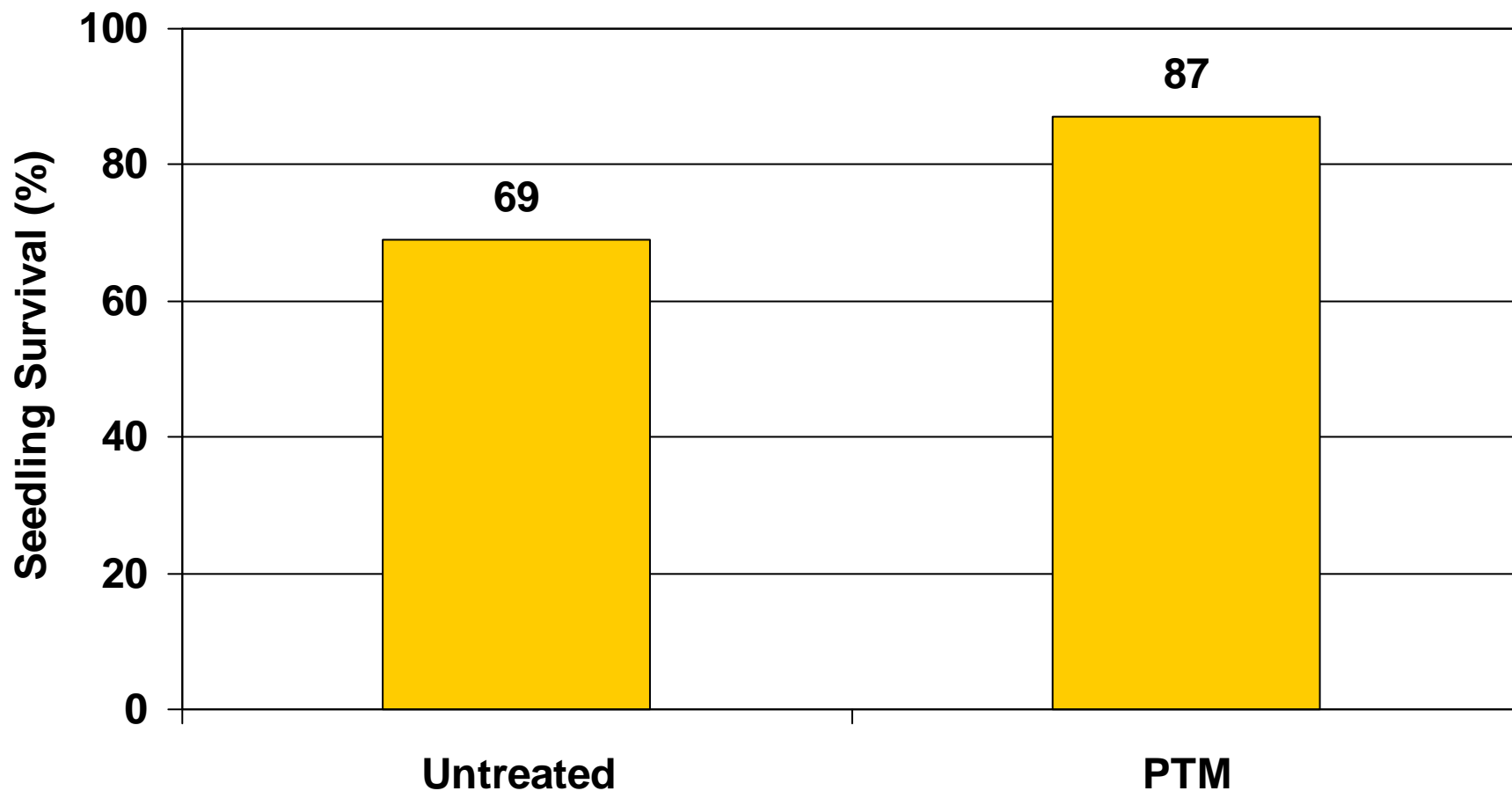


Untreated



PTM

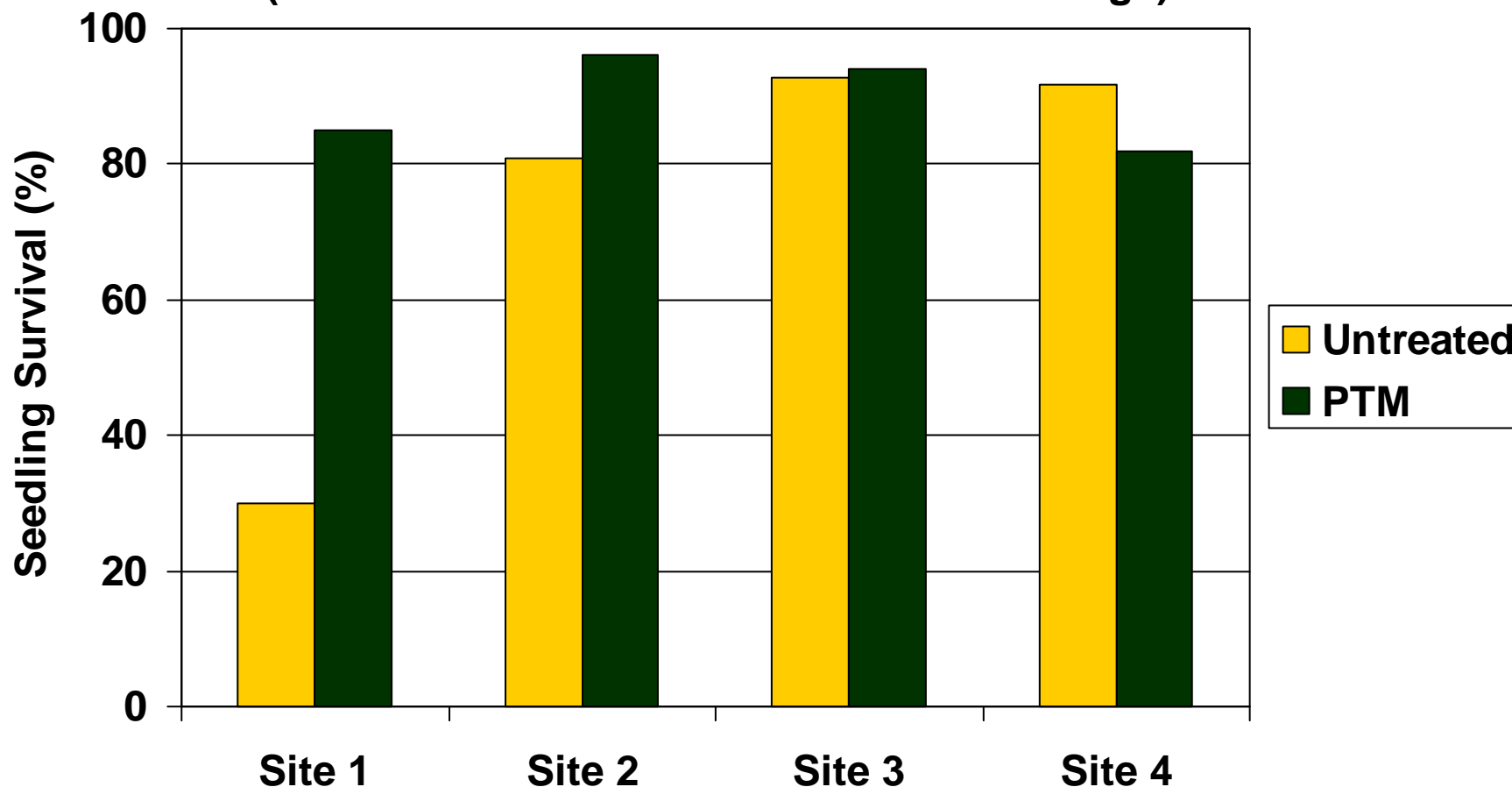
Virginia Dept Forestry Study



Virginia Dept Forestry Study



Survival on four sites with minimal tip moth infestation
(0-2% shoots infested in untreated seedlings)



Forest Investment Associates Study

- Windsor County VA (100% of seedlings infested)
 - 67% survival untreated
 - 80% survival treated
- Como County VA (68% of seedlings infested)
 - 77% survival untreated
 - 84% survival treated



Late treatment with PTM (April 16) showing early terminal infestation but protection on later growth (Windsor County, VA)

PTM in Containerized Nurseries

- Maximum allowable rate per acre is 0.13 # a.i./A
- Leaching study in greenhouse potting soil indicated 1-4% of applied fipronil leached
- < 0.036% leaching allowed to remain under threshold
- Options
 - Collect all runoff and treat to degrade fipronil
 - Plum Creek Nursery in Cottage Grove, OR
 - Others??