**Soil Technologies Corp.**
**Research and Development Department**

# Research Report

**Title:** Powdery Mildew Control on Greenhouse Mint

**Location:** Mount Aukum, CA

**Principal Investigators:** Dr. Ann Chase
Chase Research Gardens

**Crop:** Mint

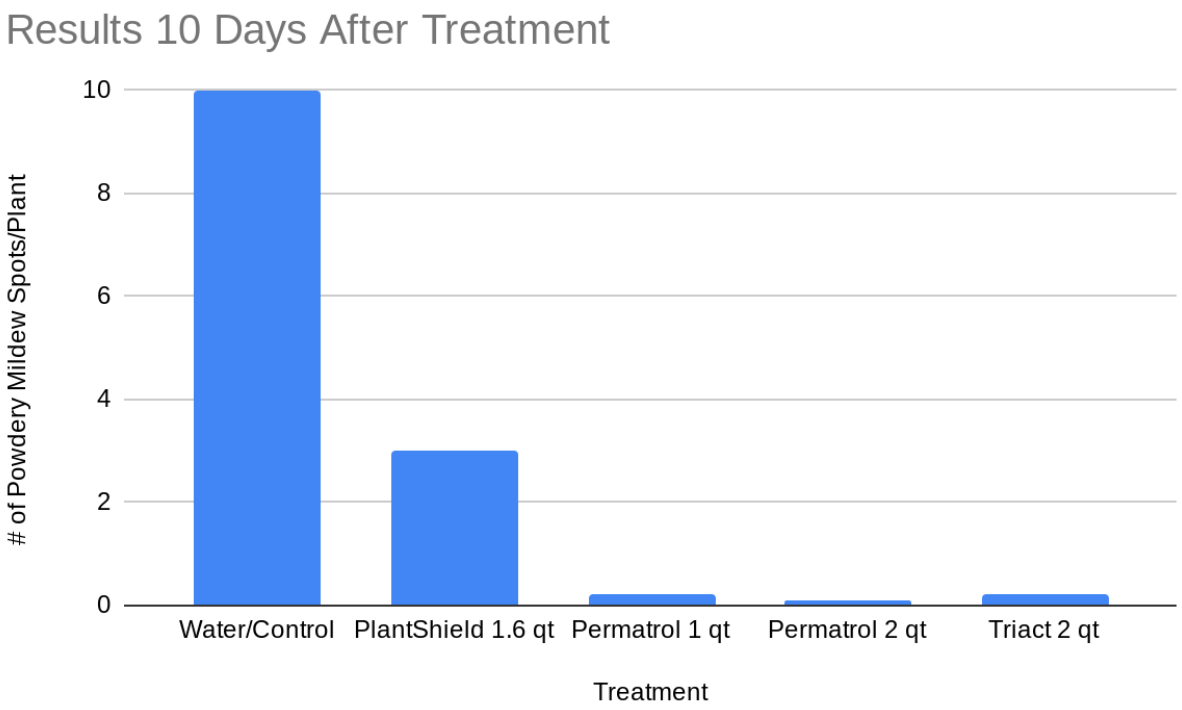
**Date:** 2001

**Abstract:**
The purpose of this study is to compare the efficacy of Permatol against chemical fungicides labeled for treating powdery mildew (*Erysiphe cichoracearum*). Four treatment protocols were evaluated on greenhouse grown mint plants. Both dilution rates of Permatrol[1] had high efficacy of controlling powdery mildew and results were comparable to that of Triact[2].

**Methods:**
The following treatments were evaluated: Plant-Shield[3] at 1.6 qt/100 gal (0.4%), Permatrol at 1 qt/100 (0.25%) gal, Permatrol at 2 qt/100 gal (0.5%), Triact at 2 qt/100 gal (0.5%), and a water control. The four foliar applications were made to run-off on 2/16, 2/23, 3/11 and 3/12/2001. Spearmint plants were growing in a greenhouse where temperatures were in the 70s F. A disease control rating was made on 3/22/2001. Silwet L-77[4] was added to Permatrol sprays to improve wetting and coverage at the rate of 2 oz/100gal.

**Results:**
Permatrol at both dilution rates provided control of powdery mildew. It was superior to Plant-Shield and comparable to Triact. Permatrol at 1 qt/100 gal was nearly as effective as Permatrol at 2 qt/l00 gal. There was no phytotoxicity from any treatments.

[1] Permatrol is an OMRI listed natural fungicide manufactured by Soil Technologies Corporation in Fairfield, IA, USA
[2] Triact is an OMRI listed fungicide CAS # 947173-77-5
[3] Plant-Shield is an OMRI listed fungicide CAS # 67892-31-3
[4] Silwet L-77 is a chemical surfactant CAS # 27306-78-1




**Conclusions:**

Data from this study indicate both dilution rates of Permatrol and Triact are effective at controlling powdery mildew with over 95% control. PlantShield had moderate results at over 70% control.