Soil Technologies Corp.
Research and Development Department

Research Report

Title: Powdery Mildew Control on Field Grown Roses

Location: Wasco, CA

Crop: Rose (Huey)

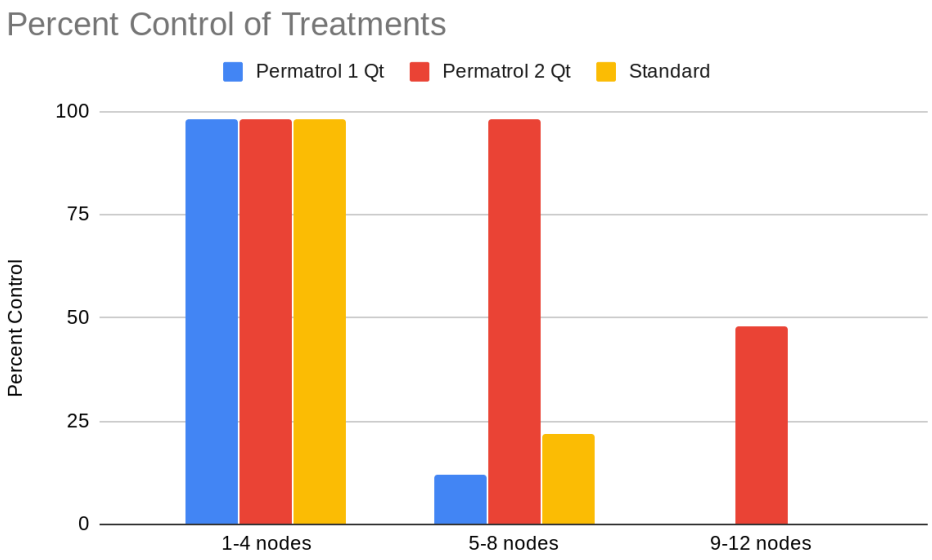
Date: 1999

Abstract:
The intent of this study was to evaluate the effectiveness of Permatrol[1] in treating powdery mildew on field grown roses. Roses grown in a field received a single eradicant application of Permatrol at 0.32% and 0.5% dilution rates and the effects were observed six days later. A standard treatment of BannerMaxx®[2] and Rubigan® E.C.[3], alternated on a biweekly schedule, was also administered and observed. Results indicate that Permatrol at a 0.5% dilution provided effective control of powdery mildew compared to the standard treatment protocol.

Methods:
Roses grown in a field received a single eradicant application of Permatrol at 0.32% and 0.5% dilution rates and the effects were observed six days later. A standard treatment of Banner Maxx and Rubigan E.C., alternated on a biweekly schedule, was also administered and observed.

Results:
Results indicate that Permatrol at a 0.5% dilution provided effective control of powdery mildew compared to the standard treatment protocol. At the 1-4 nodes stage of development all treatments provided 100% control. However, at the 5-8 node stage, rose plants that received applications of the standard treatment and Permatrol at a 0.32% dilution rate, experienced a reduction in control percentage while Permatrol at 0.5% maintained 100% control. This trend continued through the 9-12 node stage as Permatrol at 0.32% dilution and the standard treatment provided 0% control of the pathogen, while the Permatrol treatment at 0.5% dilution provided 50% protection against the pathogen.

[1] Permatrol is a natural fungicide manufactured by Soil Technologies Corp in Fairfield, IA, USA
[2] Banner Maxx is a chemical fungicide CAS # 60207-90-1
[3] Rubigan EC is a chemical fungicide CAS # 60168-88-9



Conclusions:

Results indicate that Permatrol at a 0.5% dilution rate provided effective control of powdery mildew compared to the standard treatment protocol. While all treatments provided 100% control when plants were grown to 1-4 nodes, Permatrol at 0.5% dilution maintained 100% control when plants were grown to 5-8 nodes, while the other treatments reduced their control percentage to under 25%. These findings suggest that Permatrol at a 0.5% dilution rate effectively controls powdery mildew with effects lasting longer than standard protocols.