

Establishing Healthy Citrus Plantings in the Face of Persistent HLB Pressure

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The use of metallized reflective mulch, Individual Protective Covers (IPCs), red-dyed kaolin, and a grower standard (monthly insecticide applications) were compared. Our goal was to determine the effectiveness of each for insect and disease pest challenges, above and below ground growth parameters, and differences in water and nutritional requirements. While no ACP or citrus leafminers were

found in trees with IPCs, these trees suffered from sooty mold accumulation and had infestations of spider mites, fire ants, army worms, and mealybugs. Trees planted with reflective mulch had the highest incidences of citrus leafminer, higher propagule counts for *Phytophthora*, and the shallowest root systems, but also the highest growth rates. ACP were detected in trees sprayed with kaolin film and the

grower standard, and the trees treated with kaolin also had high *Phytophthora* propagule counts. HLB and melanose have not been detected in any trees yet while greasy spot is common in all treatments. Overall, this study identifies a unique set of pros and cons that will inform of proper implementation of these non-insecticidal management tools.

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