Introduction

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The Weed Control and Pest Management Working Group (WCPM) sponsored the workshop "Pest Management During Transition From Conventional To Organic Farming" during the 2001 ASHS annual conference meeting in Sacramento, Calif. Many horticultural scientists and industry representatives attended the workshop. The following paragraphs summarize the major ideas presented by the speakers.

During the transition from conventional to organic farming systems, growers use cultural, chemical, and biological practices that are approved for organic farming pest management (U.S. Department of Agriculture, 2001). Growers face different challenges to maintain crop yields and pest control after conventional practices are abandoned. During the transition phase, crop yields and profits are often less than those in conventional systems.

The workshop objectives were to 1) present an overview of the challenges, recommendations, and guidelines for pest management in horticultural crops during the transition from conventional to organic farming, 2) present the latest tactics and recommendations for weed, nematode, insect, and disease management during the transition period, and 3) discuss relevant questions posed by the workshop attendees.

Gladis Zinati (University of Florida, Department of Environmental Horticulture, Gainesville) presented the paper "Transition from Conventional to Organic Farming Systems: I. Challenges, Recommendations, and Guidelines for Pest Management." Her presentation was an overview of the challenges that growers experience during the transition from conventional to organic farming. She discussed general recommendations and guidelines for pest management during the transition period such as crop rotations, cover crops, cultivation, use of resistant plant species to pests, and organic amendments to enrich the soil biota and to suppress pests.

Milton McGiffen (University of California, Department of Botany and Plant Science, Riverside) presented the paper "Going Organic Changes Weed Populations Dynamics" coauthored by Mathieu Ngouajio. He summarized the changes in agroecosystems that occur when conventional farming methods are replaced with organic farming methods. Changes in soil physical and chemical properties often indirectly impact weed population dynamics. Total weed density is lower and weed species diversity is higher on organic farms than conventional farms. During and after the transition to organic farming, weed suppression can be achieved by combining allelopathic effects of cover crops (Liebman and Ohno, 1998), insect predation of weed seeds and seedlings (Bustamante and Simonetti, 2000; Fenner et al., 2002; Garcia et al., 2000), and weed seed bank depletion caused by an increase in soil microorganisms (Duchesne et al., 2000).

Robert McSorley (University of Florida, Department of Entomology and Nematology, Gainesville) presented the paper "Nematode and Insect Management in Transitional Agri-

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cultural Systems." He recommended that growers use alternative strategies during the transition period, especially cultural practices that maximize plant health, increase crop density, and reduce the 1 equilibrium level of the pest population (Altieri, 1987; Powers and McSorley, 2000). He also recommended a gradual conversion before the transition period begins by including a pretransition pest management plan of 1 to 2 years. This pretransition period will reduce population levels of many problematic pests that may become extremely high once conventional practices are abandoned, and thus reduce the potential impact of crop losses due to pest predation.

James Downer (University of California Cooperative Extension, Ventura) presented the paper, "Factors Affecting Root Rot Control in Mulched Avocado Orchards." He described short and long-term effects of mulches applied to young avocado (*Persea americana*) trees. He also emphasized the benefits of adopting the Ashburner method (Cook and Baker, 1983) used by California avocado growers to suppress diseases caused by the root rot pathogen *Phytophthora cinnamomi*. This method relies on the use of organic mulches and lime or gypsum as a calcium source (Baker, 1978).

Gladis Zinati moderated the question and answer session that followed the speakers' presentations at the workshop. This session is summarized in "Transition from Conventional to Organic Farming Systems: II. Summary of Discussion Session and Recommendations for Future Research" in these proceedings. The interactive question and answer format focused on many cultural and biological approaches that can be used during a transition period and their effects on soil and pest management. Recommendations include a pretransition period to reduce major pest pressure before the transition period and adoption of integrated soil-pest management tactics that are site-specific, enhance soil health by building organic matter, increase beneficial soil organisms (Kerry, 1987; Stirling, 1991), increase plant tolerance to pest attacks, and produce higher yields.

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