Reduced Risk Pest Management Approaches-Pest Management Alliance II

Project No.: **08-STEWCROP2-Verdegaal**

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Objectives:
Funding by ABC of a research assistant to UC Extension to assist with the outreach and data collection planned as part of the Almond Pest Management Alliance II, which is funded by the California Department of Pesticide Regulations. The goals of the PMA II project include:

1. Update and analyze current data on Navel Orangeworm (NOW), mites, and diseases
   Project partners will update almond pest management studies and resulting practices in order to hone our outreach efforts to growers and PCAs by understanding use patterns and geographical data relevant to targeted compounds (i.e., reduced risk vs. OP, carbamate, and pyrethroid use) and alternative strategies. The three highest-priority target regions identified through this process will be used for regional demonstration sites. The three sites will work with UC IPM, UCCE and local PCAs, to implement reduced risk practices and their potential for sustained success.
2. Outreach and education to expand on the success of Almond PMA I for growers' needs
   Almond PMA II will encourage California almond growers to adopt reduced risk practices. Growers and PCAs will learn about alternatives to OPs, carbamates, and pyrethroids, and the impact these products have on environmental quality and VOC production. Building upon successes and lessons learned during Almond PMA I, an outreach program, coordinated by CAFF, will utilize the expertise of project partners (UC IPM staff, UC scientists, and UC farm advisors) to educate both new and experienced almond growers through regional demonstration sites, field days, newsletters, and websites.

3. Continuing Education for Almond PCAs
   Almond PMA II will involve PCAs as leaders in project implementation to develop their skills and commitment to expansion of IPM implementation. PCAs have an enormous influence on how growers manage orchards; yet most efforts to encourage reduced risk almond production focus on growers. PCAs provide a critical link in successfully affecting change in orchard management. This project addresses the need for continuing PCA education about reduced risk practices in almond orchards through presentations, trainings and involving local PCAs in demonstration site design.
4. Partner with support industry and suppliers
   Almond PMA II will provide the framework for an open dialogue with chemical suppliers about supporting reduced risk options for almond production. Chemical suppliers target their research and develop in areas where they see market potential. Almond growers and their PCAs can benefit from information about pests and their management with regard to the industry's ongoing commitment to regulatory compliance and environmentally acceptable options for growers' pest management decisions.

Interpretive Summary:

Almond Pest Management Alliance II (PMA II) is primarily a demonstration/education project whereby information developed for the Almond PMA I will be expanded and fine tuned. We are also interested in further validating sampling plans (primarily Navel Orangeworm (NOW), mites, ants and San Jose scale) and undertaking localized research for pest problems peculiar to each location. As an example: developing better and easier sampling for treatment thresholds of NOW, ants and mites.

The cooperators, both farmers and pest control advisers, are the integral part of the outreach and adoption. We look to them for ideas and successes (or failures) and also to help deliver information. We are looking to the pest control advisors to help monitor pests, such as NOW (egg traps), PTB (pheromone traps), ants (spring counts only), and leaffooted plant bug (observation of gumming on nuts and presence of eggs on leaves). Cooperating PCAs will visit and help provide outreach opportunities and information on pest management and alternative strategies or materials for sustainability.

The primary focus of this project is the reduction of organophosphates, especially Lorsban, and excessive reliance on pyrethroid sprays. We have some data that documents the efficacy of reduced risk products, in particular Intrepid for NOW. Work done by Frank Zalom has also demonstrated the efficacy of products such as Dimilin, Success, and Intrepid for peach twig borer in the dormant and bloom sprays, along with even newer materials. These products will be used in the reduced risk portion of the orchards. We are also are looking to integrate and effectively use May treatment timings for NOW and PTB to reduce hull split or dormant applications. The use of new products will help reduce spider mites through disruption.