Pest Management Alliance Grant Recipients

Promotion of a reduced risk system of almond production through alternative practices
Almond Board of California ◆ Butte, Stanislaus, & Kern counties ◆ 1998: $99,000; 1999: $98,976; 2000: $98,756.
In North America, California is the only area that commercially produces almonds. There are approximately 6,000 growers in the state producing almonds on nearly 480,000 acres from Chico to Bakersfield. The Almond Alliance was formed in 1998 to evaluate and demonstrate less disruptive pest management practices. The Alliance project offers a side-by-side comparison of current grower practices versus "softer" or alternative practices. Several pests cause problems in almonds, with navel orangeworm the key pest. Three large demonstration sites from 50 to 120 acres have been established in Butte, Stanislaus and Kern counties. Six regional field days, three during the dormant season and three in-season, have attracted close to 600 growers and pest control advisors, who learned about the benefits of winter orchard sanitation to control naval orangeworm, alternatives to organophosphate and carbamate pesticides, and monitoring techniques to accurately identify pest and beneficial insects and plant diseases. A major strength of this Alliance is the Almond Board's role in transferring information on reduced-risk alternatives to growers. (Media contact: Mark Looker, 209/549-8262)

A reduced risk pest management program for walnuts
Walnut Marketing Board ◆ Tehama, Butte, Glenn, Yuba, Sutter, Contra Costa, San Joaquin, Stanislaus, Fresno, Kings, & Tulare counties ◆ 1998: $100,000; 1999: $65,750; 2000: $100,000
California produces 99 percent of the walnuts grown in the United States and 38 percent of those grown worldwide. Walnuts grow in a wide variety of areas throughout California on nearly 221,000 producing acres. The Walnut Alliance was established in 1998 to evaluate and demonstrate commercial walnut production using reduced-risk pest management practices. The key pests in walnuts are the codling moth and walnut blight disease. The Alliance established 12 demonstration orchards comparing the growers' conventional program to control these pests with reduced-risk alternatives. These alternatives include mating disruption, release of natural enemies, use of low-risk biological pesticides and disease forecasting allowing growers to better time treatments. At five regional field days, more than 250 growers and pest control advisors have learned about these and other alternatives to organophosphate and carbamate insecticides. The Alliance is a collaborative effort between participating walnut growers, UC researchers, local farm advisors, pest control advisors, and the Community Alliance with Family Farmers, with support from the Walnut Marketing Board. The continuing focus of the Alliance is to increase grower adoption of economical reduced-risk alternatives. The group has identified a 75% reduction of organophosphate use on 12,000 acres as a realistic reduced-risk adoption goal. (Media contact: Diane Hail, 415/956-1791)

Pest Management Alliance for the containerized nursery industry
University of California ◆ Orange, Riverside, San Bernardino, Los Angeles and San Diego counties ◆ 2000: $67,849
The California containerized nursery industry Pest Management Alliance is composed of a diverse

group of members. Representatives include the largest statewide nursery association in California, several of the largest nurseries located throughout the state, University of California researchers, and various representatives in the agricultural industry. The Alliance is faced with a new pest; red imported fire ant (RIFA). Nursery growers are mandated by state and federal laws to use selected pesticides to meet quarantine requirements for RIFA in order to ship products. This has resulted in organophosphate use 70 times above the normal in Orange County alone. These required pesticide soil drenches have increased pesticide risks in the workplace. State water regulators have also determined that these pesticides have moved offsite to contaminate surface waters and sensitive water bodies in violation of the federal Clean Water Act. The containerized nursery industry Alliance proposes to develop voluntary alternative strategies that allow growers to reduce organophosphate use in the workplace and/or increase protection of surface water and ground water. (Media contact: Cathryn Barton, 909/787-2495)

A multi-disciplinary approach to methyl bromide replacement in strawberries using non-chemical alternatives

California Strawberry Commission ◆ Monterrey, Santa Cruz, Santa Barbara, Ventura, Orange, San Joaquin and Fresno counties ◆ 1998: $93,458; 2000: $93,300

California produces 80 percent of the nation's strawberries – over 1.4 billion pounds annually. This project is a statewide, multi-disciplinary pest management approach designed to enable grower organizations to identify and implement non-chemical alternatives to managing soil-borne pests in anticipation of the loss of methyl bromide. Funding from DPR 1997 Alliance grant helped enable researchers to explore and evaluate reduced rate fumigation through shank and drip irrigation, chemical and non-chemical barriers, microbial and cultural alternatives. As a result, most of these techniques have been demonstrated to the strawberry industry and several techniques such as drip fumigation and crop rotation have been or will soon be adopted by growers. Additional investigation is necessary to refine reduced risk alternative techniques, to demonstrate their effectiveness and consistency over the range of environments and conditions under which strawberries are produced, including the production of nursery stock, and to determine the parameters under which these techniques are economically viable.

The strawberry Alliance team includes the California Strawberry Commission (CSC), California Certified Organic Farmers (CCOF), University of California (UC) and its Cooperative Extension Service, the U.S. Department of Agriculture's Agricultural Research Service (USDA-ARS), and growers from several growing regions. (Media contact: Dominique Jordan, 831/724-1301)

Reduced-risk management of insect pests in sugarbeets.

California Beet Growers Association ◆ San Joaquin and Imperial valleys ◆ 1999: $88,841; 2000: $67,849

Insecticide treatments for control of sugarbeet armyworm (BAW) have been identified by the industry as contributing to secondary pest outbreaks, such as spider mites and leafhoppers. Current control practices rely on organophosphate insecticides, which are susceptible to federal restrictions. Sugarbeet growers need viable alternatives to current practices that are sustainable and less likely to cause secondary pest problems. The goal of the work plan is to eliminate insecticide sprays early in the season, thereby maintaining predators and parasites. The first objective is to demonstrate a reduced-risk approach to BAW management, including such critical components as a damage threshold and a monitoring program that is easy to use. The second

objective is to evaluate stand establishment pest management in the Imperial Valley. The entire approach to seedling pest management will be challenged, and alternatives will be demonstrated. (Media contact: Ben Goodwin, 209/477-5596)

A model integrated pest management plan for schools
Marin County Department of Agriculture and Marin County Office of Education ◆ Marin, Ventura, Los Angeles, San Diego, and San Luis Obispo counties ◆ 1998: $77,000; 2000: $100,000
Schools in California face many challenges in educating children. One challenge not normally recognized is the use of pesticides in schoolrooms and around the facilities to control pests. For many years, diminishing budgets have hindered school districts in maintaining facilities. Facility managers have shifted to practices that require less staff--for example, substituting herbicides for weed control along fencelines and selective herbicides in landscaped areas. With the growing concern over the use of pesticides, many school districts have begun to shift their practices to include IPM, but lack adequate information and training. The school project will have IPM experts conduct site assessments that can be used for specialized training of facility managers. Additionally, regional and local alliances will be developed to foster IPM in schools. Concurrently, critical information about pesticides and pest control will be provided to all levels of school staff. The information will be assessed as to value and decisions made based on the new information. Finally, information developed by a previous Alliance will be used to provide decision-makers at schools with alternatives to conventional practices.

The project will focus on schools in Marin, Ventura, Los Angeles, San Diego, and San Luis Obispo counties. (Media contact: Stacy Carlsen, 415/499-4242)

The California turkey Pest Management Alliance: Promotion of a reduced-risk multiple pest control program through field level IPM tactics, demonstrations and grower training.
AgriLynx ◆ Stanislaus, Merced, Madera, and Fresno counties ◆ 2000: $100,000
The state's turkey industry is ranked sixth in nation, producing 19 million head in 1998 with a value of more than $181 million. More than 95 percent of the state's 400-plus turkey farms are in the San Joaquin Valley. This project will promote reduced-risk multiple pest control through demonstrations and training in field-level IPM tactics on four large turkey farms in the San Joaquin Valley. On-farm and company personnel will receive field demonstrations and training in the monitoring of flies, rodents, and weeds along with training on the management of these pests using various reduced-risk techniques. By the end of the project, the developed statewide outreach and education program and materials are expected to reach more than 95 percent of California's turkey producers through meetings and handouts/mailings. (Media contact: Dr. Leslie Hickle, 619/482-1243)

The California winegrape Pest Management Alliance project.
California Association of Winegrape Growers ◆ primarily Napa, Sonoma, Mendocino, Alameda, Monterey, San Luis Obispo, Santa Barbara, Riverside, Stanislaus, and San Joaquin counties ◆ 2000: $100,000
The California Association of Winegrape growers will be demonstrating and expanding outreach on sustainable sulfur application and reduced-risk weed management strategies. Winegrapes are grown in 42 of California's 58 counties on more than 427,000 acres. Growers will be encouraged

to adopt sustainable vineyard practices throughout these different regions. Tasks include :establish a baseline of sulfur application practices and weed management options for different regions; develop sensitive mapping procedures and produce educational material for sulfur and weed management; recruit 20 grower cooperators and map sensitive areas, organize and hold field days in each region; and conduct community outreach on pest management strategies employed by local winegrape growers. This project will further speed the adoption of reduced-risk pest management among California's 4,400 winegrape growers and promote sustainable practices in the $1.6 billion winegrape industry. (Media contact: Michael Miller, 925/370-9777)

Development of an integrated system for controlling San Jose scale, peach twig borer and oriental fruit moth in clingstone canning and fresh shipping peaches, plums, and nectarines
California Tree Fruit Agreement ◆ Tulare, Kings, Fresno, Sutter, and Yuba counties ◆ 1999 $31,325; 2000: $51,251
California produces more than one million tons of peaches, plums, and nectarines annually. The Stone Fruit Alliance, established in 1998, is a coalition of canned fruit and fresh-market stone fruit growers and UC researchers. The Alliance has established a project to evaluate and promote implementation of reduced-risk pest management alternatives. San Jose scale (SJS) has become such a serious pest of stone fruit in the San Joaquin Valley, that growers are removing orchards. Organophosphate (OP) and carbamate pesticides account for approximately 80 percent of the applications to stone fruits annually to control SJS and other key pests such as peach twig borer (PTB) and oriental fruit moth (OFM). The Alliance is working to develop a model IPM system for implementation by stone fruit growers to mitigate the risks associated with routine OP use. In 1999, work focused on evaluating dormant oil sprays as an effective control of SJS, identification of natural enemies for mass rearing, and evaluation and demonstration of commercially available mating disruption products to refine application rates for more effective control of PTB and OFM. The California Tree Fruit Agreement and the Cling Peach Advisory Board have combined forces to coordinate this work. The ultimate goal is to demonstrate reduced-risk practices and use the information to develop practical recommendations for stone fruit growers. (Media contact: Marilyn Watkins, 559/638-8260)