

PEST MANAGEMENT STRATEGIC PLAN A BENEFIT TO CALIFORNIA'S WINEGRAPE COMMUNITY

The California Association of Winegrape Growers (CAWG) is an enthusiastic advocate for the development of commodity pest management strategic plans. The strategic plan we developed two years ago is the basis for many proactive programs to keep winegrape growers ahead of the regulatory curve, meet consumers' expectations for environment-friendly pest management practices, and to farm in harmony with nature and encroaching urban neighborhoods. Prior to the development of the plan, we spent almost two years conducting a comprehensive analysis of our pest management systems and the products and practices used. This paper provides information on the process we followed that resulted in our Winegrape Pest Management Strategic Plan.

FQPA Provided Impetus to Conduct an In-depth Analysis of Winegrape Pest Management System

California's grape industry has been a leader in the state in funding research and adopting more environmentally sound pest management systems. The California Association of Winegrape Growers (CAWG) together with the University of California Sustainable Agriculture Research and Education Program (UC SAREP) and the US EPA Region 9 Agricultural Initiative helped organize the FQPA Grape Partnership to evaluate potential impacts of the implementation of FQPA. US EPA Region 9 provided the funds to UC SAREP to coordinate this effort and the partnership was established in 1998.

The major objectives of the partnership were to 1) Help satisfy EPA and USDA data needs for FQPA implementation; 2) Generate crop-pest profiles for wine, raisin and table grapes to assist the grape industry in developing alternatives to FQPA priority I and II pesticides; 3) Identify critical research needs, demonstration needs, and field validation work on alternatives to FQPA priority I and II pesticides and 4) Serve as a model pro-active approach to FQPA transition within the agriculture industry.

FQPA Grape Partnership Developed Wine Grape Crop Pest Profile Based on DPR Use Data

The Partnership developed a crop-pest profile for California winegrapes, table grapes and raisin grapes. The winegrape crop-pest profile included a detailed pest-by-pest analysis of the winegrape pest management system and outlined currently available chemical controls based on the Department of Pesticide Regulation pesticide use data from 1997 as well as important cultural and biological control methods. It has been updated with 2000 use information. It summarizes the Group I FQPA priority chemicals that are under evaluation for re-registration and what are the alternative chemical and non-chemical approaches to managing the target pests. The profile addresses all major winegrape pests and many minor pests. It describes all validated and promising alternatives that are ready for demonstration projects or already a part of the numerous demonstration projects happening in California (Lodi-Woodbridge Winegrape Commission, Central Coast Vineyard Team, Biologically Integrated Vineyard Systems, etc.). It highlights special regional pest management challenges and it outlines short-term and long-term research needs based on the available known alternatives.

The profile was a cooperative effort of many individuals and organizations. The profile started with the summaries compiled and distributed by the University of California Integrated Pest Management Project. These guidelines were authored by many different specialists and advisors from the University of California's Cooperative Extension. Additional publications and documentation came from the UC Division of Agriculture and Natural Resources, the UC Sustainable Agriculture Research and Education Program, California's Department of Pesticide Regulation, the Lodi-Woodbridge Winegrape Commission, the Central Coast Vineyard Team, as well as other sources. And, the profile is based on extensive comments and suggestions from individuals in the agricultural community and members of the California Grape Advisory Team.

Since the FQPA pesticide tolerance residue standards are being driven in part by consideration of children's dietary pesticide exposure and pesticide usage patterns, crop profiles were developed separately for the different grape end users (wine, raisin, table). CAWG was pleased to provide the leadership to help bring together the wine, raisin and table grape industries and university researchers to develop this analysis for the three end uses.

As outlined below, the project's advisory team includes a unique partnership of government, environmental, and agricultural interests. By establishing trust among these interest groups and assembling key base-line pest management data, this project provided the foundation for future collaborations involving on-farm demonstration, extension, and research initiatives. Ultimately these collaborations could become the blueprint for a reasonable transition for agriculture under FQPA.

Fortunately, the winegrape industry does not heavily rely upon any single pesticide that is potentially vulnerable under FQPA. However, the continued ability to have these pest management tools available so that they may be used for control of periodic or sporadic outbreaks could be crucial to the industry. The time and input of many of our grower members resulted in a pest profile that will be continually updated to be a valuable tool as we develop transition strategies on behalf of winegrape growers and will assist the association in its goal to be a proactive force in developing solutions.

California Grape Advisory Team for the FQPA Grape Partnership

- Dr. Jenny Broome, Associate Director, University of California Sustainable Agriculture Research and Education Program (UC SAREP)
- Mr. Paul (Augie) Feder, Agricultural Policy Specialist, U.S. EPA Region 9
- Ms. Karen Ross, President, California Association of Winegrape Growers (CAWG)
- Dr. Larry Wilhoit, California Department of Pesticide Regulation
- Mr. Rick Melnicoe, California Pesticide Impact Assessment Program (CAPIAP), US Department of Agriculture
- Ms. Linda Herbst, CAPIAP, US Department of Agriculture
- Dr. Charles Goodman, Research Manager, Office of Pesticide Analysis and Consultation, California Department of Food and Agriculture (CDFA)
- Dr. John Steggall, Office of Pesticide Consultation and Analysis, CDFA
- Mr. Mike Vail, Viticulturist, Vino Farms, Inc.
- Mr. Joe Kretsch, Project Coordinator, Sun-Maid Raisin Best Management Practices Program
- Dr. Frank Zalom, Director, UC Statewide IPM Project

- Ms. Jennifer Curtis, Environmental Policy Consultant to the Natural Resources Defense Council (NRDC)
- Mr. Richard Matoian, President, California Grape and Tree Fruit League
- Dr. Cliff Ohmart, Research/IPM Director, Lodi-Woodbridge Winegrape Commission (LWWC)
- Ms. Kris O'Conner, President, Central Coast Vineyard Team

Additional Project Participants/Advisors

- Mr. Patrick Gleeson, Executive Director, American Vineyard Foundation
- Mr. Ross Jones, Director, Research, California Table Grape Commission
- Dr. Jeff Dlott, Consultant, Dlott Consulting
- **CAWG** directors and members: Ben Drake, Temecula; Gary Wilson, Shafter; Steve Quashnick, Lodi

Consultants to the Project

Dr. Michael Costello, Costello Ag Consulting, Fresno

Dr. Arthur Lawyer, Technology Sciences Group, Davis

Use Reports and Crop Profile are Basis for Winegrape Pest Management Alliance

As a result of our crop profile, CAWG applied for and was awarded a grant to conduct a pest management alliance evaluation. The purpose and the scope of the California Winegrape Pest Management Alliance Evaluation was to: (1) conduct a detailed analysis of the Department of Pesticide Regulation's 1998 Pesticide Use Report (PUR) for winegrapes; (2) provide an overview of chemical, cultural, and biological controls for major insect, mite, weed, disease, nematode and vertebrate winegrape pests; and (3) present an overview of the pest management challenges and innovations in winegrapes. The Winegrape PMA Evaluation also included a significant amount of material from the Crop/Pest Profile for Wine Grapes in California which was first published in November, 1999.

Dr. Susan Bassein produced the overall analysis of the individual pesticides by major winegrape production regions from the data provided by DPR. The analysis of the 1998 PUR data includes graphical and tabular results for percent acres treated, median number of applications per site, and median application rates by major winegrape regions as well as statewide totals. The four major winegrape regions and the approximate percentage of statewide production include North Coast (10%), Central Coast (8%), Northern San Joaquin Valley (20%), and Southern San Joaquin Valley (60%).

The California Winegrape Pest Management Alliance project was guided by a steering committee and technical advisors that includes representatives from nine regional winegrape associations (Calaveras Wine Association, Central Coast Vineyard Team, Clarksburg Wine Growers Association, Lodi-Woodbridge Winegrape Commission, Mendocino Winegrowers Alliance, Monterey County Grape Growers, Napa Valley Grape Growers, North Coast Grape Growers, and Sonoma County Grape Growers), the California Association of Winegrape Growers, American Vineyard Foundation, Robert Mondavi Winery, Allied Grape Growers, Department of Pesticide Regulation, UC Sustainable Agricultural Research and Education Program, UC Pesticide Impact Assessment Program, and US EPA Region 9.

The evaluation was the first step in a proposal to address DPR priority areas for development and adoption of reduced-risk pest management systems. As a result of the evaluation, the steering committee developed a Winegrape Pest Management Alliance which is a partnership between the California winegrape community and the Department of Pesticide Regulation to promote sustainable practices. It has just received notification that it will receive grant funding from DPR for a third year to focus on the top two statewide problems involving pesticide risks and winegrape production – sulfur drift and uses of herbicides either classified as groundwater contaminants or FQPA priority I materials. For year one, the specific objectives were to develop and execute a statewide program to demonstrate and expand outreach on sulfur best management practices and reduced-risk weed management strategies. The educational program was primarily targeted to English-speaking growers and pest control advisors with written materials, tailgate meetings and field days. Year two expanded the outreach to growers and pest control advisors with additional efforts directed towards the general public with vineyard tours (California vineyards are often on the urban edge and winegrape growers are often the center of urban-rural interface issues). Year three expands the outreach to Spanish-speaking foremen and vineyard employees with written materials and field days.

Pest Management Strategic Plan in California Winegrape Production

DPR's pesticide use data for 1997 and 1998 and our comprehensive crop-pest profile were the foundation used by the winegrape community when more than 20 growers, winery representatives, PCAs, university and government representatives met on March 14-15, 2000 for a workshop hosted by the California Association of Winegrape Growers and facilitated by USDA and the California Pesticide Impact Assessment Program. The purpose of the meeting was to identify the needs of winegrape growers in California with reference to possible regulatory actions regarding pesticides and the FQPA. The outcome of the exercise resulted in a list of critical research, regulatory and education needs, general conclusions, a general "TO DO" list, tables listing the efficacy of various management tools for specific pests and a comprehensive transition foundation containing many pest specific "TO DO" lists.

The critical needs list which resulted from this intensive, strategic analysis of our pest management systems are the basis for our communications with regulators, lawmakers, registrants, academia and the public. We are fortunate in the wine and winegrape community to have so many talented people who are dedicated volunteers willing to donate their time and expertise for projects like those described in this paper and for the grassroots advocacy to help translate these plans into action. Because of their generosity, the cost to the association was minimal – meeting rooms and refreshments, plus a couple of nice meals with good wine! However, the projects would not have been successful without the cooperation and support of U.S. EPA, USDA, DPR, California Department of Food and Agriculture, the University of California, and the staff of the Western Region Pest Management Center.

Critical Needs (listed in order of importance, 1 being the highest.)

Research:

1. Find a cure for Pierce's Disease.
2. Research and demonstration projects to find more environmentally friendly and cost effective weed control measures.

3. Spider mites and leafhopper economic thresholds and resistance management strategies.
4. Powdery Mildew – new products/methods for managing.
5. Eutypa/Bot canker – new products/methods for managing.
6. Development of new chemical and nonchemical application technologies.

Regulatory:

1. Expedite registration of environmentally friendly cost effective products.
2. Work with industry and state regulators to demonstrate and improve outreach on sustainable sulfur application practices. Adopt Sulfur Task Force stewardship recommendations.
3. Pierce's disease/GWSS as it relates to unregistered pesticides (State & Federal).
4. Accommodate new application technologies.

Education:

1. Continue grower education on monitoring and economic thresholds as the foundation of their pest management programs.
2. Continue grower education on sustainable pest management practices.
3. Educate consumers including regulators about pest management practices.
4. Develop alliances with consumers, regulators, and public interest groups to provide third-party credibility.

The Pest Management Strategic Plan helped us expand our Winegrape Pest Management Alliance and, as mentioned before, is essential to our communications with all stakeholders. We have successfully used the strategic plan as the basis for our advocacy of new USDA Agricultural Research Service (ARS) positions to focus on sustainable viticulture practices for disease control (PD) and weed management. As a result of the Pest Management Strategic Plan, we have also worked with a private contractor to develop a matrix of all materials used on winegrapes and potential regulatory and/or international trade action that could impact the use and availability of the products. We are also in the process of developing a winegrape work task/worker exposure table to help us respond to EPA and registrant requests for information regarding worker health and safety questions.

Participation in all of these projects is driven by the wine and winegrape community's stated goal to become the leader in sustainable practices – environmentally sound, socially responsible, economically successful. To accomplish this goal we must first have a clear understanding of our current vineyard practices. California's pesticide use data has been extremely beneficial to our efforts to analyze our pest management systems and possible alternatives as a basis for developing strategies to help us meet the many challenges of the 21st century.

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