

## California Walnut Board

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# CALIFORNIA WALNUT BOARD

## RESEARCH COMMITTEE MEETING MINUTES March 11, 2009

The CWB Research Committee met on Wednesday, March 11, 2009, at the California Farm Bureau Federation. Chairperson Earl Lindauer called the meeting to order at 10:10 a.m. Ms. Steindorf called the roll and a quorum was established. The following committee members were present:

Earl Lindauer, Chair  
Jerry Moore, Vice-Chair  
Karen Klonsky

Donald Norene  
Michael Petz  
Bill Tos

Committee member Jerry Siebert was absent. Others in attendance included: David Ramos, CWB Research Director; Bruce Lampinen, Extension Pomologist UC Davis; Duane Lindsay, CWC Technical Support; Debbie Wray of USDA; and CWB staff members Dennis Balint and Dana Steindorf.

The first agenda item was the approval of the minutes from the August 6, 2008 meeting. Mr. Moore made a motion to approve the minutes, Mr. Petz seconded and the motion carried unanimously.

Chairperson Lindauer introduced Mr. Bob Elliott and Mr. Matt Fossen of the Department of Pesticide Regulation to present next item on the agenda, CDPR's Volatile Organic Compound (VOC) Emission Reduction Project. Mr. Elliott gave an overview of VOC emissions, the CDPR's program overseeing VOCs, and the VOC emission reduction project (copy of presentation attached). He explained that VOCs (volatile organic compounds) and nitrogen oxides react with sunlight to form ozone. In 1994, a state implementation plan was created to achieve ozone standards. The goal is to reduce emissions up to 20% from the base year in five nonattainment areas (May-October peak ozone season). The nonattainment areas are the Sacramento Metro Region, the San Joaquin Valley, the Southeast Desert, Ventura and the South Coast. Mr. Elliott explained that the San Joaquin Valley is the largest area considered a nonattainment area. He presented slides listing the top active ingredients of pesticide emissions in 2007 in the San Joaquin Valley (May to October) and the top application sites, of which walnuts is number 6 on the list.

Mr. Elliott showed a slide listing the requirements for field fumigations in order to achieve 20% VOC reduction from 1991 as ordered by the federal district court. The appeals court overturned the district court order in August 2008, however, the regulations remain in effect. DPR proposes to revise VOC Regulations and is considering actions to reduce VOC emissions from nonfumigant pesticides. Pesticide VOC reduction measures include reformulating product to lower VOCs, changes to lower emission fumigation method, alternate methods of pest control such as mating disruption, reduced application rate, reduce treated acreage and shifting applications outside the May through October window.

Mr. Fossen explained the VOC emission reduction project being funded by U.S. EPA. It is a two-year project from September 2008 through September 2010 and focuses on outreach, resources and partnerships. It is being conducted in San Joaquin, Stanislaus and Merced counties on walnuts, almonds and peaches. Outreach includes field demonstrations, informational meetings and emphasis on UC IPM guides. Informational resources generated include Conservation Management Practices Guide and a VOC emissions calculator tool. Partnerships are a big part of the project and so far they have partnered with NRCS, local Resource Conservation Districts, University of California, commodity groups, PMA projects, farm bureaus and other local agencies.

Mr. Lindsay asked Mr. Fossen to explain the partnerships with targeted commodity groups and what opportunities are available. Mr. Fossen stated that the commodity groups they are working with have received a small contribution (\$2,500 each) which will help disseminate VOC information at different outreach events. A discussion ensued about the resources available to the industry on VOCs including a product formulation calculator and the Conservation Management Practices Guide.

Chairperson Lindauer thanked Mr. Elliott and Mr. Fossen for their presentations and moved on to the next agenda item, Strategic Planning Day. Mr. Balint stated that the California Walnut Board at their meeting in February, it was determined that there would be a Strategic Planning retreat for both the Board and Commission members in either late summer or early winter. As a prelude to that retreat, there will be two separate strategic planning pre-meetings, one for the CWB Research Committee and the other for the CWB/CWC Market Development Committees. Mr. Balint stated that we would like to have the Research Committee pre-strategic planning meeting in late May or early June. Staff will survey the Committees for the best available dates. Dr. Ramos stated that holding this meeting is very timely as there are many long-term issues facing this Committee, one of which is PRAC. He believes that the PRAC process is proceeding well among the working groups; however, PRAC is struggling to determine what is expected of them in relation to communication with the Research Committee. He believes that another issue that needs to be addressed on a long-term basis is the genetically engineered crown gall rootstock. Also on the table for strategic planning should be the issue of retiring Farm Advisors, key production researchers and the research director himself.

Chairperson Lindauer asked Mr. Balint to address the next agenda item, Water Issues. Mr. Balint stated that we are looking at water issues that stress the trees and affect production. He asked the Committee to consider if there is research that has already been done that can be packaged and distributed to the industry that speaks to issue of water and irrigation. Dr. Lampinen stated that there is a U.C. Drought Management report that has a summary table of all the almond and walnut research. Mr. Balint asked for the summary table to be included in the next walnut industry newsletter. He also stated that pruning is another issue that has come up at the grower meetings. We learned from the crop survey this past crop year that there is less pruning taking place, the tops of the trees are producing more walnuts and it is becoming difficult to come up with an estimate. Mr. Balint stated that we need to communicate these issues to the industry through our website and newsletter. A discussion ensued about the record crop this year, projected ending inventory, and the limitations of the objective crop forecast.

Mr. Balint continued with the next agenda item, Shelf Stability Studies. He indicated that as an industry, we do not have any shelf-stability data and that, with the current supply of walnuts in the marketplace, we need to do some accelerated shelf-life testing as soon as possible. He is not sure, however, if this is an issue for the Production and Post-Harvest Research Committee to undertake. Mr. Lindsay stated that he has some shelf-life data available to share with the Board. A discussion ensued about proper storage for walnuts.

Chairperson Lindauer moved on to the next agenda item, PRAC Working Group Priorities Update and Discussion. Dr. Ramos stated that the working groups did a good job of creating a priority list that can be found in the Committee's binder and he has attempted in his recommendations to indicate PRAC priority for each project that will be reviewed today.

The next agenda item was the Status of Research Projects approved on August 6, 2008 for the Special Crop Research Initiative (SCRI) Grant Program. Dr. Ramos stated that there are four projects on the list of recommendations that are identified as already being approved by the Committee at their meeting in August as part of the SCRI grant project. The four projects are: #9 Clonal Propagation of Walnut Rootstock Genotypes for Genetic Improvement; #10 Evaluation of Wild *Juglans* Species for Crown Gall Resistance; #12 Biology and Management of Phytophthora Crown and Root Rot on Walnut; and #15

Methyl Bromide Alternatives. Dr. Ramos asked the Committee to reaffirm that the total approved amount of the four projects is \$135,000 and they will be approved as a package deal. He stated that the submission deadline for SCRI is April 15, 2009. He also explained that if the SCRI funding is not approved, the four projects will continue with the limited funding from the Board.

Mr. Tos made a motion to approve the \$135,000 for projects #9, 10, 12 and 15 regardless of SCRI matching funds. Mr. Petz seconded the motion and it carried unanimously.

Chairperson Lindauer moved on to the next agenda item, Review and Decisions of FY 2008/2009 Research Proposals. The Committee reviewed each project and the recommendations of Dr. Ramos. The following decisions were made:

		<b><u>Budget Recommendation:</u></b>
<b>1.</b>	<b>Walnut Orchard Management: Pilot Projects, Field Testing, Adaptive Research and Problem Solving by CE Farm Advisors and Specialists – 92 WMB 1</b> Lampinen (Ongoing w/review)	41,429

The Committee approved this project at the budget amount requested.

<b>2.</b>	<b>Redefining the Relationship between Canopy Light Interception and Yield in Walnut – 09 CWB 1</b> Lampinen (Renewal 1 of 2)	25,123
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The Committee approved this project at the budget amount requested.

<b>3.</b>	<b>Valuating the Economic Benefits of Grazing Sheep in Crop and Orchard Systems – 09 CWB 2</b> Doran (New 1 of 1)	9,012
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The Committee did not approve this project.

<b>4.</b>	<b>The Use of Walnut Shell as Bio-charcoal Soil Amendment and its Effect on Soil Fertility and Carbon Sequestration – 09 CWB 3</b> Six (New 1 of 3)	29,881
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The Committee did not approve this project.

<b>5.</b>	<b>Economical, High Speed Sorting of Walnuts for Removal of Adhering Hull and Sunburn Damaged Nuts – 09 CWB 4</b> Haff (New 1 of 1)	25,000
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The Committee did not approve this project.

<b>6.</b>	<b>Improving Processing and Energy Efficiencies of Walnut Drying – 09 CWB 5</b> Pan (New 1 of 1)	29,500
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The Committee approved this project at a reduced budget amount of \$10,000.

<b>7.</b>	<b>Walnut Genome Analysis – 07 CWB 8C</b> Dandekar (Continuing 3 of 4)	150,000
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The Committee approved this project at the budget amount requested.

- 8. Walnut Improvement Program – 92 WMB 2**  
 McGranahan (Ongoing with review) 141,609

The Committee approved this project at the budget amount requested, including the \$14,700 in the total request for consulting contracts for Chuck Leslie and Bill Olsen. A discussion ensued about the pending retirement of Gale McGranahan and finding a replacement for her.

- 9. Clonal Propagation of Walnut Rootstock Genotypes for Genetic Improvement – 09 CWB 6**  
 McGranahan (Renewal 1 of 4) 77,500

The Committee approved \$65,500 funding for this project at their August 8, 2008 meeting. This amount will be applied to the CWB's \$135,000 contribution toward the matching funds requirement for the Specialty Crop Research Initiative (SCRI) Walnut Rootstock Proposal to be submitted to USDA-CSREES by April 15, 2009.

In addition, the Committee approved \$12,000 funding for consultant Wes Hackett, bringing the funding total for this project to \$77,500.

- 10. Evaluation of Wild *Juglans* Species for Crown Gall Resistance – 09 CWB 7**  
 Kluepfel (Renewal 1 of 4) 27,000

The Committee approved this project at the budget amount requested as part of the \$135,000 allocation to the SCRI Walnut Rootstock Improvement Project.

- 11. Crown Gall Resistant Walnut Rootstocks: Analysis for Scion Transmitted Genetic Materials – 09 CWB 8**  
 Dandekar (New 1 of 2) 18,854

The Committee did not fund this project.

- 12. Biology and Management of *Phytophthora* Crown and Root Rot on Walnut – 09 CWB 9**  
 Browne (Renewal 1 of 4) 18,500

The Committee approved this project at the budget amount requested as part of the \$135,000 allocation to the SCRI Walnut Rootstock Improvement Project.

- 13. Evaluation of Elite Hybrid Clonal Rootstocks for Resistance to *Phytophthora* Root and Crown Rot: Mechanisms of Root Stress Predisposition to Disease – 09 CWB 10**  
 Bostock (New 1 of 2) 24,372

The Committee did not fund this project.

- 14. Characterization of R Genes involved in Resistance to Cherry Leafroll Virus in Paradox Hybrids – 09 CWB 11**  
 Sudarshana (New 1 of 3) 25,000

The Committee did not fund this project.

15. **Methyl Bromide Alternatives – 09 CWB 12**  
 McKenry (Renewal 1 of 4) 24,000

The Committee approved this project at the budget amount requested as part of the \$135,000 allocation to the SCRI Walnut Rootstock Improvement Project.

16. **A New Post-Plant Nematocide with Potential for Walnut – 09 CWB 13**  
 McKenry (New 1 of 2) 10,000

The Committee agreed to fund the project at a reduced level of \$6,500.

17. **Functional Genomic Analysis of Walnut-Nematode Interactions – 06 WMB 2C**  
 Dandekar (Continuing 4 of 4) 35,000

The Committee funded this project at the amount requested.

18. **Epidemiology and Management of Walnut Blight – 3 WMB 7**  
 Adaskaveg (Continuing 2 of 3) 47,200

The Committee funded this project at a reduced level of \$46,200.

19. **Walnut Blight Control Investigations – 09 CWB 14**  
 Buchner (Renewal 1 of 2) 20,311

The Committee funded this project at a reduced level of \$15,000.

20. **Optimizing “Meso-Pheromone Emitters for Codling Moth Management in Walnuts – 07 WMB 1**  
 Welter (Continuing 2 of 2) 37,755

The Committee approved this project at the budget amount requested.

21. **Why Puffers Work: Determining the Effects of Residual Releases on Control of Codling Moth – 09 CWB 15**  
 Welter (New 1 of 1) 14,381

The Committee funded this project at the budget amount requested.

22. **Using Aerosol Pheromone “Puffers” for Area-wide Suppression of Codling Moth in Walnuts: Year Five – 05 WMB 7**  
 Pickel, Grant (Continuing 5 of 5) 27,000

The Committee funded this project at the budget amount requested.

- 23. Selective Pesticides and Biological Control in Walnut Pest Management – 08 WMB 4**  
Mills (Continuing 2 of 3) 20,931

Funding was approved for this project by the Committee at their meeting on August 8, 2008 at the level requested. It was applied toward the matching funds requirement for the SCRI Proposal: Enhancing Biological Control to Stabilize Western Orchard IPM Systems in which Nick Mills is a Co-PI and was subsequently approved by USDA.

- 24. Ambient Orchard and On-tree Volatile Collection System for Monitoring and Detection of Attractants for Navel Orangeworm – 09 CWB 16**  
Beck (New 1 of 2) 20,000

The Committee did not fund this project.

- 25. A Comparison of Methyl Bromide and Profume Efficacy against the Eggs of Navel Orangeworm and the Diapausing Larvae of Codling Moth in Walnut Fumigations Conducted at NAP and Under Vacuum – 08 WMB 3**  
Walse (Continuing 2 of 2) 7,000

The Committee funded this project at the level requested.

Mr. Petz made a motion to approve the following projects at the budget amounts requested: #1, 2, 7, 8, 9, 17, 20, 21 22, 23 and 25; also, project #6 at \$10,000, project #16 at \$6,500, project #18 at \$46,200, project #19 at \$15,000. Also included in the approvals is \$14,700 in consulting contracts for Chuck Leslie and Bill Olson in project #8 and \$12,000 for a consulting contract for Wes Hackett in project #9. Projects #9, 10, 12 and 15 were also approved in an earlier motion. This brings the total budget amount of all projects approved by the Committee for 2008/2009 to \$724,928. Mr. Tos seconded the motion and it carried unanimously.

The next agenda item was Recommendation to the Board for Research Funding for 2009/2010. The Committee, after some discussion, decided they would like to stay at the current funding level. Mr. Norene made a motion to recommend to the Board a Production Research budget for 2009/2010 of \$725,000. Mr. Tos seconded the motion and it carried unanimously.

The time and place of the next meeting will be at the discretion of staff and the Committee chair. Hearing no further business, Chairperson Lindauer adjourned the meeting at 2:43 p.m.