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CALIFORNIA WALNUT BOARD

RESEARCH COMMITTEE
MEETING MINUTES
March 22, 2013

The CWB Research Committee held a meeting on Friday, March 22, 2013 at the California Farm Bureau Federation in Sacramento, CA. Chairperson Jerry Moore called the committee meeting to order at 9:33 a.m. Ms. Steindorf called the roll and a quorum was established. The following committee members were present:

Jerry Moore, Chairperson
Bob Driver, Vice-Chairperson
Bert Crane
Lynn Morgan
Todd Ramos
Bill Tos

Committee member David Keyawa was absent. Also present were Dr. David Ramos, CWB Research Director; David Neale, Bruce Lampinen, Chuck Leslie and Joe Grant of UC Davis; and CWB staff members Dennis Balint, Carl Eidsath and Dana Steindorf.

The first order of business was the approval of the meeting minutes from November 28, 2012. Mr. Crane made a motion to approve the minutes as mailed. Ms. Morgan seconded the motion and it carried unanimously.

Chairperson Moore asked Dr. Ramos to report on the next agenda item, Breeder Position and Developing a Genomics/Marker-Based Breeding Program. Dr. Ramos stated that this discussion is a continuation from the November 28, 2012 meeting; he introduced Dr. David Neale who has agreed to come on board as the academic walnut geneticist breeder working with Chuck Leslie. Dr. Ramos gave a history of the breeding program since its inception. In 1989, Gale McGranahan became an academic member of the faculty of the Department of Pomology; at the time, she began focusing on the breeding program. Chuck Leslie came into the program at about the same time. Under their direction, the breeding program became very successful. When Dr. McGranahan retired in 2009, it left the program without an academic faculty leader. Dr. Neale is now going to fill that position.

Dr. Ramos asked Dr. Neale to talk about his experience and background in breeding programs. Dr. Neale stated that his training and education is in forestry; he came into the UC system through his work at USDA. He explained his vision for taking his experiences in forestry and applying them to the walnut breeding program. He also discussed the processes for mapping the walnut genome. Dr. Ramos stressed that if the industry's main focus is on disease resistance, earlier harvest and Chandler-like quality, it is his opinion that we need to use Dr. Neale's approach to the breeding program, and it is going to require a financial commitment from this Committee and the industry.

Mr. Balint stated that Mr. Eidsath would like to discuss an issue not on the agenda. Mr. Eidsath distributed a document regarding a granular replant fumigant – the label on the fumigant was changed a couple of years ago to prohibit hand-held equipment for application of the product. Mr. Keyawa had sent the information to Mr. Balint asking if the issue could be brought before the Committee to ask if the industry should contact the Butte County Ag Department or if he should contact the department himself. The Committee agreed that the CWB should not get involved in the issue and if Mr. Keyawa wants to contact the Ag Department on his own behalf, he should.

Chairperson Moore asked Mr. Joe Grant to report on the next agenda item, Report of the February 19, 2013 PRAC meeting. Mr. Grant commented that the PRAC reviewed the proposals that the Committee will make decisions on today. He distributed a copy of a spreadsheet on which PRAC evaluated the merits of the proposals, giving them a score of 1 to 5 with 1 being low and 5 being high priority. The criteria for the ranking were alignment/conformity of the proposed work with PRAC Working Group priorities, balance between the amount requested and the value of a successful outcome to the walnut industry, likelihood that the project will produce practical benefits for growers, and technical/scientific merit of the proposed work.

Mr. Grant stated that there is a vacancy on PRAC; Bill Carriere has resigned his seat on PRAC and as co-chair of the Genetic Improvement Working Group. The group discussed a replacement for Mr. Carriere and Brian Blain is under consideration.

Mr. Tos made a motion to appoint Brian Blain as a member of the PRAC and as co-chair of the Genetic Improvement Working Group. Mr. Crane seconded the motion and it carried unanimously.

Chairperson Moore thanked Mr. Grant for his comments and also for providing the spreadsheet which is very helpful to the Committee.

Chairperson Moore asked Dr. Ramos to begin discussion about the next agenda item, Review and Decisions of FY 2012/2013 Research Proposals. The total budget available for 2012/2013 is $1,100,000. Dr. Ramos distributed his funding recommendations for the Committee based on research needs and priorities.

The Committee went through each project and made funding recommendations as follows:

			Budget Request:
PLANT PATHOLOGY/NEMATOLOGY			
1.	**Epidemiology and Management of Walnut Blight – 12 CWB 1**		
	Adaskaveg	(Continuing 2 of 4)	63,000

Based on the recommendation from Dr. Ramos, the Committee approved this project at a reduced budget amount of $58,500.

2.	**Walnut Blight Control Using Integrated Pest Management Techniques – 13 CWB 1**		
	Buchner	(Renewal 1 of 2)	17,096

The Committee funded this project but directed Dr. Ramos to convey message to all researchers involved that the Committee intends to only fund one blight project next year.

3.	**Identification and Mapping of Resistance and Susceptibility to Walnut Blight – 13 CWB 2**		
	Dandekar	(New 1 of 3)	69,345

The Committee did not fund this project.

4. Managing Anthracnose Blight and Botryosphaeria and Phomopsis Cankers of Walnut –

12 CWB 2
Michailides (Continuing 2 of 3) 39,399

The Committee funded this project at the amount requested.

5. Development of Disease-Resistant Walnut Rootstocks: Integration of Conventional and Genomic Approaches – 13 CWB 3
Kluepfel (New 1 of 2) 180,000

The Committee funded this project at the amount requested.

6. Walnut Clonal Paradox Rootstock Experiements in Tehama and Solano Counties – 13 CWB 4
Buchner (New 1 of 4) 4,632

The Committee did not fund this project.

GENETIC IMPROVEMENT

7. Disease and Pest Resistant Transgenic Rootstocks: Analysis, Validation, Deregulation and Stocking of RNA_i – Mediated Resistance Traits – 13 CWB 5
Dandekar (Renewal 1 of 3) 79,861

The Committee funded this project at the amount requested.

8. Walnut Improvement Program – 92 WMB 2
Leslie (Ongoing with Review) 321,097

Based on the recommendation from Dr. Ramos, the Committee approved this project at a reduced budget amount of $307,000.

9. Development of Molecular Markers for the Selection of the Early Harvest Date Trait in Walnut Breeding – 13 CWB 6
Dvorak, Luo, Leslie, Aradhya (New 1 of 1) 18,822

Based on the recommendation from Dr. Ramos, the Committee approved this project at a reduced budget amount of $15,046.

10. Discovery of the Candidate Mutation in the *LB* 1 Gene Causing Lateral Bearing in California Walnut Varieties – 13 CWB 7
Dvorak, Luo, Leslie, Aradhya (New 1 of 1) 53,495

The Committee did not fund this project.

11. Identification and Mapping of Pellicle Coloration – 13 CWB 8
Dandekar (New 1 of 3) 69,945

The Committee did not fund this project.

ORCHARD MANAGEMENT

12. Local Applied Walnut Research and Extension Activities – 11 CWB 15

Kelley Anderson	(Ongoing with Review)	12,000

The Committee funded this project at the budget amount requested.

13. Walnut Orchard Management: Pilot Projects, Field Testing, Adaptive Research and Problem Solving by CE Farm Advisors and Specialists – 92 WMB 1

Lampinen	(Ongoing with Review)	50,592

The Committee funded this project at the budget amount requested.

14. Refining the Relationship between Canopy Light Interception and Yield in Walnut – 13 CWB 9

Lampinen	(Renewal 1 of 2)	32,163

The Committee funded this project at the budget amount requested.

15. Root Growth Dynamics and Constraints on Aboveground Growth and Yield of Walnuts – 11 CWB 14

Lampinen	(Continuing 3 of 3)	48,629

Based on the recommendation from Dr. Ramos, the Committee approved this project at a reduced budget amount of $42,707.

16. Development of a Nutrient Budget Approach and Optimization of Fertilizer Management in Walnut – 13 CWB 10

DeJong, Pope	(New 1 of 4)	77,205

The Committee funded this project at the budget amount requested.

17. Walnut Weed Control Research and Extension: Efficacy, Crop Safety, and Glyphosate-resistant Weed Management in Central Valley Walnut Orchards – 13 CWB 11

Hanson	(New 1 of 1)	14,997

Based on the recommendation from Dr. Ramos, the Committee approved this project at a reduced budget amount of $13,000.

ENTOMOLOGY

18. Biology and Control of Walnut Husk Fly Using Reduced Risk Products – 12 CWB 6

Van Steenwyck	(Continuing 2 of 3)	45,830

The Committee funded this project at the budget amount requested.

19. Refining Pheromone Mating Disruption Strategies to Manage Codling Moth in Walnuts – 13 CWB 12

Grant, Pickel	(Renewal 1 of 3)	28,540

The Committee funded this project at the budget amount requested.

20. Navel Orangeworm in Southern Central Valley Walnuts: Source, Seasonal Abundance, and Impact of Mating Disruption – 12 CWB 8

Burks	(Continuing 2 of 3)	37,500

The Committee funded this project at the budget amount requested.

21. Lures for Monitoring Navel Orangeworm – 13 CWB 13

Burks	(New 1 of 2)	21,500

The Committee did not fund this project.

22. Spider Mite Management in Walnuts Management – 13 CWB 14

Mills	(New 1 of 3)	59,461

The Committee funded this project at the budget amount requested.

23. Maintaining UCIPM Pest Management Guidelines for Walnuts – 13 CWB 15

Al-Khatib	(New 1 of 1)	3,897

The Committee funded this project at the budget amount requested.

24. Evaluation of Spirotetramat as a Post-Plant Nematicide in Walnut – 13 CWB 16

Haviland	(New)	17,207

The Committee did not fund this project.

Mr. Driver made a motion to approve the following projects at the budget amounts requested unless otherwise noted: #1 (at $58,500), 2, 4, 5, 7, 8 (at $307,000), 9 (at $15,046), 13, 14, 15 (at $42,707), 16, 17 (at $13,000), 18, 19, 20, 22 and 23 for a total of $1,099,797. Mr. Tos seconded the motion and it carried unanimously.

The next item on the agenda was the Report on CE Specialist/Advisor Positions and Farm Advisor Internship Program. Dr. Ramos stated that he is much more optimistic now about what is happening with the positions being filled by UC. Bill Krueger's position in Glenn County is being filled, as are Carolyn Debuse's and McKenry's and Bentley's are being filled at Kearney. The new vice-president of A&R, Barbara Allen Diaz, is doing a good job and is taking into consideration the needs of the commodity groups. The Committee discussed the ongoing needs in Kings and Tulare Counties and the possibility of a joint venture with pistachios for funding a position. Ms. Ricci mentioned that the CWB can fund a research project, but not a research position. Mr. Balint commented that the Farm Advisors do applied research for walnuts and pistachios through field trials. Ms. Ricci stated that as long as there is a research project attached to the applied research, the CWB can fund.

Dr. Ramos stated that there is a proposed joint funding opportunity for farm advisor intern positions; this would be a joint venture with almond, walnut, prune and pistachio industries. If all four commodities agreed to fund two farm advisor intern positions, there would be one intern in the Sacramento Valley and one in the San Joaquin Valley. Mr. Balint stated that again, this poses the same problem as funding a research position, not a project. It must be attached to a research project in order to be funded by the CWB. Dr. Ramos stated that the cost per year per industry for the farm advisor intern program would be $30,000.

Mr. Driver made a motion to include $30,000 in the total Production Research budget for 2013/2014 for a farm advisor applied research project to cover the funding for two farm advisor interns for one year as a joint venture with the almond, prune and pistachio industries. Staff and USDA will determine if this is acceptable to AMS. Mr. Tos seconded the motion and it carried unanimously.

The next item on the agenda was the Recommendation to the Board for Research Funding for 2013/2014. The Committee discussed the current research budget and projections for the coming year,

as well as the endowment for the breeding program. Dr. Ramos stated that based on the discussion this morning regarding Dr. David Neale's commitment to the breeding program, we are going to have to augment the budget to provide for his needs. The range for the first couple of years is somewhere between $400,000 to $500,000. The Committee discussed on-going projects and commitments the Committee anticipates for next year.

Dr. Ramos stated that there is $500,000 already set aside for the first installment of adding to the endowment in 2012/2013. The endowment would be critical if we were to be hiring a new person for the department. David Neale is not concerned with the endowment; he is on board anyway without the use of the endowment. Mr. Balint stated that we approved the addition to the endowment because we wanted to perpetuate the breeding program beyond David Neale's tenure. Dr. Ramos suggested that this money now committed, $500,000, brings the endowment up to the endowed professorship level. He stated that it is not necessary to continue funding the endowment beyond this year. If the industry was committed already to put that amount into the endowment, perhaps it could be better committed to supporting David Neale. Mr. Balint stated that we need to keep the two issues separate. Dr. Ramos stated that he would be disappointed to see us continue to fulfill the terms of adding to the endowment if that would jeopardize coming up with funds for David Neale.

The Committee discussed recommending a budget for 2013/2014 which will include an enhanced amount to cover the breeding program needs of David Neale and also recommending the additional $500,000 for the endowment for the 2013/2014 budget. If the Budget and Personnel Committee balks, the Committee would prefer that the enhanced Research budget be approved before the endowment. Mr. Balint asked Dr. Ramos what the difference is between an endowment at $1.5 million or at $2 million. Dr. Ramos stated that the difference is the extra $0.5M generates more research money and makes it more attractive for a person to be in walnut breeding.

Mr. Tos made a motion to recommend to the Budget & Personnel Committee a 2013/2014 research budget of $1,500,000. Mr. Driver seconded the motion and the motion carried unanimously.

Mr. Tos made a motion to recommend to the Budget & Personnel Committee the second installment of $500,000 to the Research Breeding Program Endowment to bring it to $2,000,000. Mr. Crane seconded the motion and it carried unanimously.

Mr. Balint stated that he would like Dr. Ramos to get more information about the endowment and that if there is no difference between having a $1.5 million endowment and a $2 million endowment, the Committee has the option of recommending to the Board the withdrawal of the second $500,000 payment at the June meeting.

The time and place of the next meeting will be at the discretion of the Chairperson and staff. An executive session was not necessary. Hearing no further business, Chairperson Moore adjourned the meeting at 2:51 p.m.