National Agricultural Research, Extension, Education and Economics Advisory Board

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MINUTES OF THE CITRUS DISEASE SUBCOMMITTEE MEETING

May 19-20, 2014 NIFA Waterfront Centre 800 9th Street, SW, Washington, DC

Summary of the Meeting

The Citrus Disease Subcommittee (CDS), a statutory subcommittee of the National Agricultural Research, Extension, Education, and Economics (NAREEE) Advisory Board met in public session on May 19-20, 2014, in Washington, DC. The purpose of the meeting was two-fold: to welcome and orient the members to the duties and functions of the subcommittee, and to establish the recommendations for the priorities and annual budget and agenda for the Emergency Citrus Disease Research and Extension Program (CDRE), part of the National Institute of Food and Agriculture's (NIFA) Specialty Crop Research Initiative (SCRI).

Committee Members Present: Tom Jerkins, Matthew McLean, Donald Roark, Dr. Etienne Rabe, Paul Heller, Justin Brown, Ricke Kresse, Joe Davis Jr., and David Howard

Other Members Present: Dr. Mark McLellan (NAREEE Advisory Board Representative)

REE Advisory Board Staff: Michele Esch (Executive Director), Shirley Morgan-Jordan (Program Support Coordinator

Other USDA Staff Present: Dr. Catherine Woteki (USDA Chief Scientist and REE Under Secretary), Dr. Sonny Ramaswamy (USDA NIFA Director), Dr. Tom Bewick (USDA NIFA), Dr. Dan Schmoldt (USDA NIFA), Dr. Mary Palm (USDA APHIS), Julius Fajardo (USDA OPMP), Karl Maxwell (USDA NIFA), Michael Fitzner (USDA NIFA), Pace Lubinsky (USDA FAS)

Other Attendees Present for Part or All of the Meeting: Lauren Sher (Senator Bill Nelson), Danielle Beck (Representative Tom Rooney), Dr. Lindsay Lynch (South Florida State College), Matt Joyner (Florida Department of Agriculture)

Monday, May 19, 2014

Part I. Orientation for New and Incumbent Members

Welcoming Comments - Mr. Tom Jerkins, Chair, CDS

Tom Jerkins provided welcoming comments to the Committee members and others present. Mr. Jerkins reminded the group that we had been working together since 2011 under the auspices of the Citrus

Disease Research and Development Advisory Committee, now formally called the Citrus Disease Subcommittee. He also stressed the importance of the work we would be undertaking especially with the serious decline in the Florida industry and the eminent threat to the California and Texas citrus industries.

Overview of the NAREEE Board and Subcommittees – Michele Esch, Executive Director, REE Advisory Board Office

(A power point is available upon request from the REE Advisory Board Office.)

Ms. Esch provided an overview of the organization of the USDA and the NAREEE Advisory Board and its subcommittees. She also reviewed the Federal Advisory Committee Act (FACA) and the General Operating Procedures of the NAREEE Advisory Board with a focus on the reporting procedures of the Board and subcommittees.

The subcommittee asked for clarification on the release and distribution of documents. Ms. Esch clarified that any records created by the subcommittee are open to public inspection (barring the presence of personally identifiable information) and can be shared. The REE Advisory Board Office can provide copies to interested parties. Other documents created by other agencies (i.e., NIFA or APHIS), will need to receive appropriate clearance to be shared.

Opening Remarks - Dr. Catherine Woteki, USDA Chief Scientist and REE Under Secretary

(A power point is available upon request from the REE Advisory Board Office.)

Dr. Woteki welcomed the members of the CDS. She outlined the duties of the members as it relates to the charge in the Farm Bill and reminded the members of the important function they have in recommending the priorities and agenda of the CDRE. The work that the CDS is doing is precedent setting as it relates to the close interaction and work between the Executive Branch and an advisory committee. Other commodity groups and federal agencies are interested in the relationship.

Dr. Woteki also described the relationship between the subcommittee and NIFA as it relates to the SCRI and the CDRE. The committee asked for clarification on how the agenda and priorities that they recommend will be used by NIFA in the Request for Applications (RFA). Dr. Woteki clarified that since you are a federal advisory committee the deliverables are recommendations and can be revised or added to by the Department.

Dr. Woteki reminded the committee to identify needs and information they may need as we move through the process. The committee will provide comments and suggestions on the grants awarded in the previous fiscal year.

The committee stated that the citrus community needs to use this as an opportunity to expand the research and activities. There was also discussion on duplication of efforts and how we can ensure that this work will not duplicate other federal work or other research activities in general. Dr. Woteki informed the group that this question is frequently raised from a variety of sources. A recent Government Accountability Office (GAO) study could not identify duplication. In general, there tends to be complementary research and programs. One of the duties of the CDS is to review the funds awarded through grants and ensure that there is no wasteful spending or duplication of research efforts.

The CDS asked for clarification on the new relevancy review process of the SCRI program. Dr. Tom Bewick outlined the process for the relevancy review. Dr. Woteki reminded the committee members that their involvement with the CDS precluded them from participating in the relevancy review panels in order to avoid a conflict of interest.

Ethical Considerations of FACA Committees – Andrew Tobin, Senior Ethics Advisor, USDA Office of Ethics

(A power point is available upon request from the REE Advisory Board Office.)

Mr. Tobin provided an overview of ethical considerations when serving on a federal advisory committee. He described the three classifications under ethics rules: federal employees, special governmental employees, and representatives. The members of the CDS are all representatives which means that you only represent a specific interest or outside group and you are appointed for the purpose of presenting the points of view of that group. It also alleviates having to do any formal conflict of interest reporting; however, any member should recuse themselves from a matter if it involves the financial interest of a spouse, minor child or business partner. The appearance of a conflict could have an effect on the recommendations being developed by the committee.

The committee asked if involvement in a State citrus research program or foundation would cause a conflict. Mr. Tobin indicated that it would not.

Part II. USDA Citrus Disease Research Efforts

NIFA Activities and Overview of the Specialty Crop Research Initiative – Dr. Tom Bewick, National Program Leader, NIFA, and Dr. Dan Schmoldt, National Program Leader, NIFA

(A power point is available upon request from the REE Advisory Board Office.)

Dr. Bewick provided an overview of the current base programs and the competitive programs. He provided the current funding for citrus disease research. From FY2008 through FY2012, NIFA has obligated \$15 M amongst 86 Hatch projects; 8 Smith-Lever 3D projects; 8 AFRI projects; 13 SBIR projects; and 11 other projects (SCRI = 4).

Dr. Bewick outlined the current legislative focus areas:

- Research in plant breeding, genetics, and genomics to improve crop characteristics
- Efforts to identify and address threats from pests and diseases, including threats to specialty crop pollinators
- Efforts to improve production efficiency, productivity, and profitability over the long term (including specialty crop policy and marketing)
- New innovations and technology, including improved mechanization and technologies that delay or inhibit ripening
- Methods to prevent, detect, monitor, control, and respond to potential food safety hazards in the production and processing of specialty crops, including fresh produce

He also described the new dual stage review process, mandated in the 2014 Agricultural Act (Farm Bill). This new process requires an industry relevancy review conducted as a pre-application process (prior to

the scientific merit review) for the SCRI program. While this is a new statutory process, the scientific merit review previously included relevancy in their review criteria. One of the purposes of the new relevancy review process is to ensure that stakeholders are involved with the development of the proposals. The SCRI grants must demonstrate that the work in the research proposal will continue even after the federal funds have been expended.

The subcommittee asked for clarification on the definition of relevancy. Dr. Bewick informed them that while it is subjective, NIFA has developed the criteria and instructions based on the consultation with the Specialty Crop Committee (a subcommittee of the NAREEE Advisory Board). The relevancy review panels are convened by specific commodities so that for example, stakeholders in the apple industry are reviewing proposals for apple research. These panels may also be arranged geographically.

Dr. Bewick outlined the timeframe for the SCRI CDRE program. The RFA should be release in late May/early June. Award recommendations will be submitted to the Secretary in November. The CDS will reconvene in December to review the previous year grants awarded and to develop recommendations on the coming year's priorities and agenda. The FY2015 RFA will be released in late January. Ultimately, NIFA would like for the RFA to be released in September therefore, we will gradually move this time frame up over the course of the next couple of years.

The subcommittee asked for clarification on how Congress developed the priority areas for the SCRI. These were developed from a variety of listening sessions and USDA recommendations. It is important to remember that the funds for SCRI, including the CDRE allocations, must be distributed throughout the priority areas. Therefore, for example, some of the CDRE funds will go towards food safety projects.

Discussion amongst the members and Dr. Bewick and Dr. Dan Schmoldt, NIFA National Program Leader, also included information on the new matching requirements for FY2015. The Farm Bill allows for certain organizations to be exempt from the matching requirement. This includes: USDA research agencies (ARS, ERS, etc.); organizations eligible to receive funds from capacity programs (in other words, a land-grant or another one of our capacity funded partners, using the most obtuse possible angle for consideration); organizations who partner with one of those organizations above (definition of "partnering" pending) or; if the Secretary waives the match requirement because the grant involves research or extension activities that the NAREEE Advisory Board has determined are national priorities. Any grants awarded after October 1, 2014, will be subject to the matching requirements.

A member of the subcommittee asked if there was documentation to highlight the different USDA citrus programs, their respective funding cycles, and the process for applying. NIFA and APHIS indicated that something could be put together.

ARS Citrus Disease Research Activities - Dr. Gail Wisler, National Program Leader, ARS

(A power point is available upon request from the REE Advisory Board Office.)

Dr. Gail Wisler provided an overview of current ARS research dedicated to citrus diseases. The major categories of research are: epidemiological studies; thermotherapy; vector suppression and control; breeding and biotechnology for crop improvement and resistance to HLB; antimicrobial therapies; RNAi

approaches to managing both Huanglongbing (HLB) and the Asian Citrus Psyllid (ACP); and the NuPsyllid SCRI project.

There was discussion about the thermotherapy demonstration project that showed great promise and antimicrobial therapy. There was consensus amongst the group that it will take several solutions to eradicate the problem.

APHIS HLP MAC Working Group – Dr. Mary Palm, Assistant Director, PPQ, Quarantine Policy, Analysis, and Support, APHIS

(A power point is available upon request from the REE Advisory Board Office.)

Dr. Mary Palm described the work of the HLB Multi-Agency Coordination Group. This group is a result of a 2013 listening session held by APHIS. It was developed to collaborate, coordinate and prioritize federal research with industry needs; allocate and leverage critical resources; fill gaps and reduce duplication of research efforts; and to provide practical, short-term solutions for growers. The program was allocated \$1M in FY2013 by the Secretary of Agriculture and in FY2014, through the Consolidated Appropriations Act, provided an additional \$20M. The members of the HLB MAC include industry representatives from California, Florida, and Texas. The HLB MAC held its first meeting in February 2014. The awards are made either through directed funding or through stakeholder project suggestions.

The subcommittee asked for clarification on how the funds will be spent. Dr. Palm indicated that 2/3 of the funds will be spent in FY2014. The next open proposal period will be out soon. Dr. Palm asked the group for their input on near term solutions. These included: thermal solutions, antimicrobials, consumer education, trap and kill solutions, and early detection for biocontrol. Dr. Palm asked the members to encourage their counterparts to submit proposals.

The subcommittee applauded the efforts of the HLB MAC Group.

Subcommittee Business

The subcommittee held an open discussion about the chair and vice chair positions on the subcommittee. By unanimous vote, the subcommittee re-elected Tom Jerkins as the Chair and Etienne Rabe as the Vice Chair.

Public Comment

Being there was no public comment, the meeting adjourned for the evening at 5:30 pm.

Tuesday, May 20, 2014

Part III. Establishment of Citrus Disease Research and Extension Priorities

Introduction and Overview of Agenda

Ms. Esch provided an overview of the agenda for the day. She asked Dr. Julius Fajardo to provide remarks on the work of the USDA Office of Pest Management Policy.

Dr. Julius Fajardo, Plant Pathologist with the USDA Office of Pest Management Policy, provided a brief overview of the 2006 Recovery Plan for citrus disease, including HLB. Recovery plans are written by

OPMP to aid decision makers with public policy decisions and for information to the general public. The plan is currently being revised. Updates on the status of the plan will be provided at the National Plant Disease Recovery System session at the American Phytopathological Society meeting on August 10, 2014.

Welcoming Remarks – Dr. Sonny Ramaswamy, Director of the USDA National Institute of Food and Agriculture (NIFA)

Dr. Ramaswamy provided opening remarks for day 2 of the meeting. He reiterated that there is urgency in finding solutions and remediation to HLB and ACP. The Secretary of Agriculture is very interested and committed to the solutions.

Dr. Ramaswamy reviewed the roles of the CDS and NIFA in the CDRE process. The CDS must set the agenda for the program and frame the priorities. Then the subcommittee will take a retrospective review of the grants awarded to look at the process and the accomplishments of the program. You will be able to look at the awards and determine what is working and what needs improvement.

Dr. Ramaswamy reviewed the process slide presented by Dr. Woteki previously (a copy of the presentation is available from the REE Advisory Office) and reminded the subcommittee of their roles and of NIFA's roles. He reiterated that this process lends itself to be a learning process.

The subcommittee asked if there were any bureaucratic or political issues that would slow the process down. Dr. Ramaswamy indicated that for NIFA, the Administration is on high alert and ready to act to get the RFA released for proposals. In addition, we do not expect any political issues until after awards are made. The subcommittee stated that the money allocated to the CDRE is very helpful but all "hands" must be on deck to solve the imminent problems threatening the Florida citrus industry and the impending threats to the California industry. They reiterated that the priorities and agenda need to be adhered to and they also expressed concern about the relevancy reviews.

Dr. Ramaswamy explained that the relevancy review process was incorporated to the process via the Farm Bill as a result of industry request. Dr. Bewick reiterated that the relevancy review panels will be made up of individuals involved in production or representatives of trade associations. He requested that the CDS nominate individuals to be relevancy reviewers. Dr. Bewick further explained that the relevancy reviewers will need to dedicate approximately 10 hours of their time plus an hour for an orientation conference call.

The CDS requested a monthly status report from NIFA and APHIS on their progress.

Priority Planning Session

Day 2 of the CDS meeting provided the members with a strategic planning session to identify the agenda and priorities for the FY2014 CDRE program. Dr. Karl Maxwell, Program Analyst with NIFA facilitated the discussion. The subcommittee went through an environmental scan, identified region specific considerations, and identified short, medium and long range goals for the identified priorities. There was a reminder that we are coming up with priorities; not identifying solutions to the problems. The subcommittee identified problems that need to be addressed and what questions need answers. The

goal for the day was to develop a list of priorities to provide to NIFA for the development of the RFA for the CDRE program.

The subcommittee identified priorities and categorized them into the following groups.

Bacterium [B]

- Early detection methodologies of HLB
- Bacteriacide/eradication
- Heat therapy and delivery systems
- Antibacterial therapy and delivery systems
- Tree, soil, and root health
- Resistance control

Consumer [C]

- Extension of outreach for urban areas
- Education on new technologies (GMOs, bacteriacide)

Production Systems [P]

- Economic impacts including production costs
- What is the real cost to resurrect the industry?
- Ability to grow young trees/model orchard
- Premature fruit drop
- Technology to remove ag residue in biproducts

- Juice quality improvement in presence of HLB
- Environmental sustainability
- Resistant rootstocks and varieties

Regulation [R]

- Fast track regulatory approval for new technologies
- Innoculum control of abandoned orchards
- Urban control
- Tree removal
- Maintain existing registrations (including neonics)

Vectors [V]

- Early/better detection of ACP
- Resistance management
- ACP vector control
- Organic control of vector
- Repellents
- RNAi
- Biological controls
- Attract and kill

The subcommittee assigned short, medium and long term values to each of the priorities; short = 12-24 months, medium = 2-5 years, and long term = greater than 5 years. The subcommittee was reminded that the HLB MAC working group can be utilized for shorter term projects.

The subcommittee voted by region on the ranking for each priority identified (**Note**: this was not a committee vote on the priorities.) Here are the results of those regional votes:

Priority	Term (s/m/l)	Critically Important	Moderately Important	Need to Know
Bacterium [B]				
Early detection methodologies of HLB	S	4	-	5
Bacteriacide/eradication	S	8	1	ı
Heat therapy and delivery systems	S	6	3	-
Antibacterial therapy and delivery systems	S	9	-	-
Tree, soil, and root health	S/M/L	1	2	6
Resistance control	M/L	-	4	5

	Term	Critically	Moderately	Need to					
Priority	(s/m/l)	Important	Important	Know					
Consumer [C]									
Extension of outreach for urban areas	S/M/L	2	2	5					
Education on new technologies (GMOs, bacteriacide)	S/M/L	1	5	3					
Production Systems [P]									
Economic impacts including production costs	S	2	2	5					
What is the real cost to resurrect the industry?	S	2	1	6					
Ability to grow young trees/model orchard	M/L	3	1	5					
Premature fruit drop	S	5	3	1					
Technology to remove ag residue in bi-products	S	1	2	6					
Juice quality improvement in presence of HLB	S	5	4	-					
Environmental sustainability	M/L	-	4	5					
Resistant rootstocks and varieties	M/L	9	-	-					
Regulation [R]									
Fast track regulatory approval for new technologies	S/M/L	9	-	-					
Innoculum control of abandoned orchards	S/M/L	2	3	4					
Urban control	S/M/L	4	-	5					
Tree removal	S/M/L	3	1	5					
Maintain existing registrations (including neonics)	S/M/L	9	-	1					
Vectors [V]									
Early/better detection of ACP	Μ	4	-	5					
Resistance management	L	-	9	-					
ACP vector control	S	7	2	-					
Organic control of vector	S	5	1	3					
Repellents	М	1	6	2					
RNAi	M/L	4	5	-					
Biological controls	S/M	3	5	1					
Attract and kill	M/L	3	2	4					

Part IV. Working Session

Vote on Priorities and Research Agenda of the Emergency Citrus Disease Research and Extension Program

The subcommittee finalized the established priorities and terms (short, medium or long range term). There was acknowledged general discomfort with the results, mostly due to the regional differences and needs. Through careful deliberation, it was determined that the final set of priorities would indicate the regional differences. This final set of regional priorities was voted on and unanimously approved (the Texas representative departed the meeting early and voted via email the following day).

		PRIORITY RANKING								
		California & Texas			Florida			TOTALS		
Bacterium [B]	Term	Critical	Moderately Important	Nice to Know	Critical	Moderately Important	Nice to Know	Critical	Moderately Important	Nice to Know
Early detection methodologies of HLB	S	4				1	4	4	1	4
Bacteriacide/eradication	S	4			5	_	•	9	0	0
Heat therapy and delivery systems	S	1	3		5			6	3	0
Antibacterial therapy and delivery systems	S	4	-		5			9	0	0
Tree, soil, and root health	S/M/L		1	3	1	2	2	1	3	5
Resistance control	M/L		1	3		1	4	0	2	7
Consumer [C]	•	I			<u>II</u>			Ш		
Extension of outreach for urban areas	S/M/L	1	3				5	1	3	5
Education on new technologies (GMOs, bacteriacide)	S/M/L		2	2	1		4	1	2	6
Production Systems [P]					"			"		
Economic impacts including production costs	S			4	1	1	3	1	1	7
What is the real cost to resurrect the industry?	S			4	2		3	2	0	7
Ability to grow young trees/model orchard	M/L	2	1	1	1	1	3	3	2	4
Premature fruit drop	S	1	3		5			6	3	0
Technology to remove ag residue in bi- products	S			4		1	4	0	1	8
Juice quality improvement in presence of HLB	S		2	2	3	2		3	4	2
Environmental sustainability	M/L		2	2			5	0	2	7
Resistant rootstocks and varieties Regulation [R]	M/L	4			4	1		8	1	0

	•	PRIORITY RANKING								
		California & Texas			Florida			TOTALS		
	Term	Critical	Moderately Important	Nice to Know	Critical	Moderately Important	Nice to Know	Critical	Moderately Important	Nice to Know
Fast track regulatory approval for new technologies	S/M/L	4			4		1	8	0	1
Innoculum control of abandoned orchards	S/M/L	1	2	1		2	3	1	4	4
Urban control	S/M/L	3	1				5	3	1	5
Tree removal [R]	S/M/L	3	1			1	4	3	2	4
Maintain existing registrations (including neonics)	S/M/L	4			3	2		7	2	0
Vectors [V]	3, 111, 2	·				_			_	<u> </u>
Early/better detection of ACP	М	4				1	4	4	1	4
Resistance management	L		4		1	3	1	1	7	1
ACP vector control	S	4			3	2		7	2	0
Organic control of vector	S	3	1		2		3	5	1	3
Repellents	М	2	2		1	1	3	3	3	3
RNAI	M/L	3	1			4	1	3	5	1
Biological controls	S/M	2	2		1	2	2	3	4	2
Attract and kill	M/L	3	1				5	3	1	5

A motion was proposed for the Executive Director of the NAREEE Advisory Board, NIFA and APHIS to provide a monthly status report on the: HLB MAC Working Group, the CDRE RFA, and other citrus disease research initiatives. The motion was seconded and unanimously approved.

In accordance with the duties outlined in the Farm Bill, the subcommittee established the recommendations for the annual budgets for the CDRE. The subcommittee agreed that the annual budget should reflect the priorities outlined. A motion was passed to set the FY2014 budget at \$25M based on the priorities established by the CDS.

Wrap Up and Identification of Next Steps

The next meeting of the CDS was determined to be held in December 2014 in Florida. This meeting will allow the CDS to review the previous year's grants and to establish the priorities for the FY2015 RFA for the CDRE.

Travel Procedures - Ms. Shirley Morgan-Jordan, Program Support Coordinator, REE Advisory Office

A brief overview of travel procedures was provided to the subcommittee. They were reminded that the REE Advisory Board Office must book air reservations in order to be reimbursed. They were notified that the travel reimbursement form was included in their binder and to complete it as soon as possible in order to receive reimbursement. Transportation, parking, and lodging receipts are required; meal receipts are not required.

Public Comment Period

Being there was no public comment, the meeting adjourned at 5:30 pm.

Resolutions and Recommendations:

- The CDS developed and approved a list of priorities to be provided to NIFA for the development of the CDRE RFA.
- The CDS explicitly stated that these priorities should be based on regional needs to combat citrus greening.

Summary of Action Items

- The Executive Director, with input from relevant USDA Agencies, will provide the CDS with a summary of the different USDA citrus research programs. This will include their respective funding cycles and the process for application.
- The Executive Director will provide the CDS with a timeline of relevant dates for the CDRE RFA and the MAC HLB Working Group.
- The next meeting of the CDS will be held in December 2014, possibly in conjunction with the varietal meeting in Florida.

Submitted by:		
Tom Jerkins Chair		Dr. Etienne Rabe Vice Chair
	 Michele Esch	_
	Executive Director, NAREEE	

the Secretary of Agriculture.

• The CDS will develop a report and recommendations based off of these minutes. This report will be deliberated upon by the NAREEE Advisory Board and once approved, will be distributed to