

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)  
ENVIRONMENTAL FARMING ACT SCIENCE ADVISORY PANEL**

**Auditorium  
California Department of Food and Agriculture  
1220 N Street  
Sacramento, CA 95814**

**May 14, 2015**

**MEETING MINUTES**

**Panel Members**

Don Cameron, Member and Chair  
Mike Tollstrup, Member  
Jocelyn Bridson, MSc, Member  
Jeff Dlott, Member

**Subject Matter Experts**

Doug Parker, PhD, Subject Matter Expert  
Luana Kiger, Subject Matter Expert

**State Agency Staff**

Amrith Gunasekara, PhD (CDFA)  
Jenny Lester Moffitt, Deputy Secretary (CDFA)  
Karen Ross, Secretary (CDFA)

**AGENDA ITEM 1**

The meeting was called to order at 10:05 AM by the Chair, Mr. Don Cameron. Introductions were made. A quorum was established. Members present at the meeting included Mr. Cameron, Dr. Dlott, Mr. Tollstrup, and Mrs. Bridson.

**AGENDA ITEM 2**

**WELCOME ADDRESS – SECRETARY ROSS**

Secretary Ross welcomed the panel and audience to the meeting. Secretary Ross mentioned the importance of the Healthy Soils Initiative being discussed. She informed the group that Deputy Secretary Jenny Lester Moffitt is the policy lead on the initiative.

**AGENDA ITEM 3**

**PREVIOUS MEETING MINUTES**

CDFA staff presented the minutes from the previous December 19, 2014 meeting. The motion was made to accept the minutes as presented by Dr. Dlott, and seconded by Mr. Tollstrup. The motion was moved by all members present and was accepted without further changes.

**STATE WATER EFFICIENCY AND ENHANCEMENT PROGRAM (SWEEP)**

An update was provided on the State Water Efficiency and Enhancement Program (SWEEP). Senate Bill 103, signed in 2014, created the SWEEP program with \$10 million appropriation. Another \$10 million has been appropriated for FY 2015-2016.

**AGENDA ITEM 4 - SOIL HEALTH**  
**STATE HEALTHY SOILS INITIATIVE**

Deputy Secretary Jenny Lester Moffitt provided background information on the healthy soils initiative. The initiative was introduced in the Governor's January 2015 budget proposal. CDFA will coordinate this initiative under its existing authority provided by the Environmental Farming Act. The term "healthy soils" refers to ensuring that our agricultural soils have adequate soil organic matter (SOM) or soil carbon content.

**INTRODUCTION TO SOIL ORGANIC MATTER AND SOIL HEALTH**

Dr. Dennis Chessman, USDA/NRCS, provided background on the new Soil Science Division created in the fall 2012 within the USDA Natural Resources Conservation Services (NRCS). Dr. Chessman spoke about Soil Organic Matter (SOM) which is the organic matter component of soil. Organic matter serves as a reservoir of nutrients and water in the soil, aids in reducing compaction, and increases water infiltration. SOM levels can be changed / increased by crop management by reducing tillage, keeping soil surfaces covered by growing plants using plant diversity. He noted that soil organic matter is 50 percent carbon and that plants are mostly water. Factors affecting SOM are mostly climate influenced.

Discussions ensued regarding the importance of organic materials and climate affects.

**STRATEGIES TO INCREASE SOIL ORGANIC MATTER IN CALIFORNIA SOILS**

Dr. Jeff Mitchell, UC Davis, presented strategies for improving SOM in California. Dr. Mitchell emphasized the benefits achieved by farming practices which address the core goals and principles of soil health. Organic matter serves as a reservoir of nutrients and water in the soil, aids in reducing compaction, and increases water infiltration. Dr. Mitchell noted that because of the different crops, etc., a trial and error process to finding the best technology will be a major challenge to overcome. He encouraged the Science Panel members to think of long-term goals for soil organic matter and requested a formal collaboration with the Science Panel, CDFA and/or both.

Discussions ensued regarding the strategies.

Mr. Cameron suggested changing the agenda to move the Public Comment and Discussion period to after lunch.

**PUBLIC COMMENT AND DISCUSSION**

Secretary Ross attended the Governor's budget revise meeting earlier in the morning, and provided an update of the items important to Greenhouse Gas Emission reduction to the group. The Secretary emphasized the importance of partnering with the Universities for collaborative solutions in these important issues.

Discussions continued for earlier presentations.

**PUBLIC COMMENT**

Mr. Ron Hardman: Agriculture lacks the adoption of existing technology. What about the science of adoption of the application? Understand the farmers' decision making process.

Mr. Chris Gardner: Consider the strategies to implement these practices.

Ms. Brittany Hecht, Urban Conservation District: Equipment for no-till seeder, and no-till for orchards and composting dairies. "Landsmart" program for carbon farms, vineyard crops, and compost/biochar projects

Mr. Stacey Sullivan: Improving soil health is a process using compost and dairy waste. It is important for rangelands to know the value of carbon sequestration.

Mr. Dusty Ference, California Citrus Mutual: CCM has formed working groups to look at what industries are doing for soil health. They are getting input from growers/members on farms.

Dr. Jeff Creque, Carbon Cycle Institute: He informed the group of the studies his organization has been doing, there should be a major greenhouse gas reduction by 2050.

Mr. Dan Noble, Association of Compost Producers: The website for his organization is: [healthysoil.org](http://healthysoil.org).

Mr. Noble mentioned there are 135,000 farm acres of which 100,000 are now fallow because of the drought. To not keep those acres fallow, they should be converted to rangelands. The land should be absorbed to expand cattle herds. Compost facilities use bio-solids for rangelands. His organization in the short term is working with recycling organic producers to form an international soil/carbon coalition.

Mr. Paul Sousa, Western United Dairymen: His organization hopes this will make it easier for dairies to compost their manure.

Mr. Greg Kester, CA Sanitation Agencies: His agency is working on reclamation of fire ravaged lands by using biosolids.

Nick Lapis: Key to soil health is more compost.

Debbie Pierce, Biochar: Her organization is very involved with soil amendments. She indicated that Biochar would be very interested in partnering with other organizations in doing these studies.

Diana Rudi, Grange Lands: She would like small farmers involved in the decision making process. The USDA expects 1 million more farmers by mid-century.

Dave Runson: His organization works with all size farms. The study must look at solutions more broadly and not focus on a specific technology. Farmer to farmer groups must be included for this will happen. Farmers must be both big and small if this will work.

Adam Kotin, CalCAN: Incentivize demo projects and who is involved. Focus effort to build the program including many farmers and projects.

Torrey Estrada: There is more productivity in healthy soil. Five counties in the bay area are already involved in studies. He thinks the barriers to producers are resources or the gap for adoption, capacity on ground or the investment required by producers, and tool development.

Finian Makepeace, Kiss the Ground: Letting go of the silos is important in order to work together. An implementation gap may result because a group of people from a wide range are involved.

Diana Donlon, Center for Food Safety: Framing of the issue as a cultural issue.

Greg Suba, CA Native Plant Society: The Society preserves native habitats throughout California. The scientific gaps he sees are urban, crop/orchard/agriculture, and rangeland diversities and how to manage them. He noted that adding compost on grassland will not alter the competition of the grassland. He would like to see the inclusion of California Fish and Wildlife for studies on grazed grassland.

The sudden oak death in plants in the urban sector, becomes green waste which becomes compost. Australia has dealt with this disease.

Jessica Chardus, PhD Student, UC Davis. The complexities of plants and soil are site specific. Who is being brought into this solution? This affects us all and not enough to just include farmers. Focus also on producers and the consumer function.

Margaret Reeves, Pesticide Network: She noted that it is important to consider the human effects of pesticides and that system-change is important. Ms. Reeves encouraged the creation of farmer networks.

Neil Elder, Compost Coalition: Mr. Elder stated that the state can achieve its greenhouse gas goals by reducing waste in landfills. He also encouraged CDFA to post the speaker presentation online.

John Wick, Marine Carbon Project: Mr. Wick stressed that compost on rangelands is an important method for building carbon. He noted that there are other good feed stocks for compost such as dairy manure.


The Science Panel noted that CDFA should consider the public comments and include them in the Healthy Soils Initiative to the extent possible.

**AGENDA ITEM 5 - NEXT MEETING AND LOCATION**

Dr. Gunasekara noted the next meeting will be co-hosted with CalRecycle and will be focused on compost. He also noted that the Science Panel will be used to continue the discussions with the public on the Healthy Soils Initiative.

Mr. Cameron adjourned the meeting 3.52 PM.

Respectfully submitted by:

  
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Amrith Gunasekara, Ph.D.

7/17/15  
Date