

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

**Room 133  
California Department of Food and Agriculture  
1220 N Street  
Sacramento, CA 95814**

**December 19, 2014**

**MEETING MINUTES**

**Panel Members**

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

**Subject Matter Experts**

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

**State Agency Staff**

Amrith Gunasekara, PhD (CDFA)  
Carolyn Cook, MSc (CDFA)  
Nilan Watmore, MSc (CalEPA)

**AGENDA ITEM 1 and 2**

The meeting was called to order at 10:00 a.m. by the Chair, Mr. Don Cameron. Introductions were made and a quorum was established. Members present at the meeting included Mr. Cameron, Dr. Dlott, Mr. Tollstrup and Ms. Gretz. Subject matter experts Dr. Parker and Ms. Kiger were also present. Introductions were made.

**PREVIOUS MEETINGS' MINUTES**

CDFA Staff presented the minutes from the previous September 10, 2014, meeting. A motion was made to accept the minutes as presented by Mr. Tollstrup and seconded by Dr. Dlott. 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 implementation of the State Water Efficiency and Enhancement Program (SWEEP). Contracts were established between CDFA and grant recipients from the first solicitation between September 11, 2014 and October 17, 2014. Ninety-three projects were awarded funding, totaling \$3.6 million. Eighty-four projects are moving forward with contracts and implementation totaling \$3.3 million; some of the award recipients chose not to move forward on their projects for numerous reasons. The 2<sup>nd</sup> solicitation for applications ended on November 10, 2014. CDFA received an unprecedented amount of applications for the 2<sup>nd</sup> round primarily due to the fact the applications were required after the growing season and given the higher maximum award amount which was increased from \$50,000 in the first solicitation to \$150,000 in the 2<sup>nd</sup> solicitation. CDFA received a total

product. Discussion involved several questions including evaluating if greenhouse gas reduction funds could be used field trials.

Dr. Lehmann, Chairman of the International Biochar Initiative at Cornell University presented science based information on the benefits of biochar including its ability to increase water and nutrient retention, remediate pollution, buffer acidic soils and reduce plant diseases. He noted that biochar research has accelerated over the past five years and it is very persistent in soils. Some decision support tools exist for biochar as noted in Dr. Lehmann's presentation and that biochar has the potential to reduce greenhouse gases (nitrous oxide) but depends on how much and where it is applied. He noted that in future, biochar use will benefit from platforms for pilot projects and determination of the overall greenhouse gas balance and production/use economics.

Jim Boyd provided a policy perspective for biochar. He noted that Placer district and other biochar producers require funding to quantify benefits and potentially obtain carbon credits for biochar. Discussed were ways to monetize the system, develop energy and that overall, greater resources and efforts need to be allocated to biochar.

Dr. Gunasekara noted that there are several action items that could be undertaken by the department. They included producing a science-based white paper report on biochar, organizing a symposium on biochar, exploring potential funding for biochar from the greenhouse gas reduction fund, establishing partnership with the University of California at Davis on biochar and establishing request for research proposals (RFP) on biochar with existing resources and programs to study effect on crop yields, plant growth and nutrients. However, the overall ask from the presenting group was to establish field trials to develop use rate information. Dr. Gunasekara noted that one potential source of research funding is the Fertilizer Research and Development Program (FREPD) since it registers soil amendments. Dr. Gunasekara noted that he will explore initiating a RFP through Fertilizer Research and Education Program.

**AGENDA ITEM 5 and 6. PUBLIC COMMENT AND NEXT MEETING**

Public comment was taken throughout the meeting. The next meeting will take place in two to three months with the location to be determined at a later date.

Respectfully submitted by:



Amrith Gunasekara, Ph.D.

5/15/15

Date