WELCOME AND INTRODUCTIONS

Dr. Marc Los Huertos called the meeting to order at 9:04 AM and welcomed the subcommittee. Dr. Jerome Pier and Mr. Steve Spangler were not able to attend the meeting. A quorum was established.

DEPARTMENT, DIVISION, AND BRANCH UPDATES

Dr. Amadou Ba announced the Division is in the process of filling three positions for the Medical Cannabis Cultivation Program (MCCP). The Environmental Program Manager II is Ms. Amber Morris, who previously worked at the Plant Division. The program is recruiting an Associate Governmental Program Analyst and an Environmental Program Manager I.

The MCCP will be responsible for issuing licenses to cultivators, establishing conditions for the cultivation, and tracking medical cannabis from seed to sale. Other state departments are involved, including the Department of Consumer Affairs, the Department of Public Health, the Department of Fish and Wildlife, and the State Water Resources Control Board (SWRCB).
The Organic Input Materials (OIM) program is a fertilizing material review program in the Feed, Fertilizer, and Livestock Drugs Regulatory Services Branch within CDFA. It is now recognized by United States Department of Agriculture’s National Organic Program (USDA NOP), which means it is equivalent to other material review organizations in the United States, such as Washington State Department of Agriculture (WSDA) and Organic Materials Review Institute (OMRI). If materials are registered with CDFA’s OIM program, they do not need to be registered by other material review organizations. About 1,550 labels are registered for organic use through the OIM program.

In January, FREP-funded nutrient management training for Certified Crop Advisers (CCAs) was held in Fresno, California, and about 100 CCAs attended. From 2014 to 2016, 890 CCAs have been trained in the state.

To date, 22 sessions of FREP-funded grower self-certification training have been held in the Central Valley. About 1,060 growers have attended and 81 percent of the attendees have passed the examination and received certifications. The grower training sessions will continue through May 2016.

The State Water Quality Control Board released the response to the petition of the Waste Discharge Requirements (WDRs) for growers in the Eastern San Joaquin River Watershed approximately two weeks ago. The response took the form of a proposed order to be adopted by the Regional Boards. It indicates that coalitions will continue to be responsible for collecting and analyzing data and submitting information to the Regional Boards. The proposed order requires the coalitions to submit some field level data in addition to post-processed data. The draft order is open for 60 days for public comments, and once adopted, each of the Regional Water Boards is required to adopt agricultural orders that are consistent with the State Board order.

**REVIEW AND APPROVE MINUTES**

Dr. Los Huertos requested the subcommittee review the minutes of the December 2, 2015, meeting.

**MOTION:** Dr. Rob Mikkelsen moved to approve the December 2, 2015, minutes; Dr. Eric Ellison seconded. The motion passed unanimously by present subcommittee members with a vote of 8 – 0.
PRESENTATION BY REPRESENTATIVE OF THE SOUTHERN SAN JOAQUIN VALLEY MANAGEMENT PRACTICE EVALUATION PLAN (MPEP) COMMITTEE

Dr. Barzin Moradi introduced Dr. John Dickey. The other meeting attendees made self-introductions.

Dr. Dickey, the technical lead of the Southern San Joaquin Valley Management Practices Evaluation Program (MPEP), presented the goals and plans of the MPEP team. The team works for the Southern San Joaquin Valley coalitions, which includes these seven coalitions: Kings, Kaweah, Tule, Kern, Cawelo, Westside, and Buena Vista.

The MPEP team looks at the effectiveness of management practices on a larger scale than individual farms. The goal is to obtain groundwater and management practices data, evaluate their effectiveness, and help growers comply with the regional board requirements of reducing the amount of nitrogen leaching into groundwater. The team wants to work with all researchers, including those that are funded through FREP, who will carry out studies that will build the body of knowledge necessary to complete the MPEP.

DISCUSSION AND RECOMMENDATION OF 2016 CONCEPT PROPOSALS

Dr. Los Huertos led discussion in reviewing and voting on the 2016 concept proposals; 44 concept proposals were received. TASC voted a majority “yes” for the following 13 proposals. Project leaders for these concept proposals will be invited to submit full proposals:

- Development of a tool to estimate site-specific soil N mineralization for improved fertilizer N use efficiency  
  Daniel Geisseler

- Nitrogen Availability and Fertilizer Value of Organic Amendments  
  Daniel Geisseler and William Horwath

  Charles Sanchez and Jose Aguiar

- Field evaluation of N₂O emissions from alternative fertilizer management practices in California/Southwestern US vegetable production systems  
  Sharon Hall and Charles Sanchez

- Nutrient Management Seminars to Enhance Fertilizer, Soil, and Plant Health Knowledge Expectations  
  Ruthann Anderson and Mindy Rohan
• Development of nutrient budget and early season nutrient prediction model for Citrus
  Patrick Brown, Saiful Muhammad, and Emilio Laca

• Block-level Yield Prediction for Seasonal N Fertilization Strategies in California’s Almond Orchards
  Yufang Jin and Patrick Brown

• Evaluation of Biochar for On-Farm Soil Management in California
  Sanjai Parikh

• Can nitrification inhibitors increase N use efficiency in almond production?
  Patrick Brown

• Online Decision Support Tools for Irrigation and Nitrogen Management of Central Valley Crops
  Michael Cahn, Allan Fulton, and Patrick Brown

• Evaluation of composts and digestates of food and manure in long-term nutrient planning
  William Horwath

• Training for Irrigators on Integrated Management of Irrigation Systems based on Climate, Soil and Plant Data
  Trina Walley

• Validating Leaf Nutrient Critical Values for Citrus
  Philippe Rolshausen

TASC voted a majority “no” for the 31 following proposals. Project leaders for these concept proposals will be informed of TASC’s reasons for denial.

• Development and Implementation of an Outreach and Education Program for Agricultural Operators in the San Jacinto Watershed
  Pat Boldt

• Implementation of Efficient Water and Nitrogen Management Practices in Processing Tomato with High Frequency Subsurface Drip Irrigation
  Claude Phene, Brock Taylor, Inge Bisconer, and Rebecca C. Phene

• Irrigation and Nitrogen Use Optimization Program for Central Coast Specialty Crops: Facilitating grower adoption of CropManage by linking existing tools, technology and technical assistance
  Chris Coburn

• Enhancing Nitrogen Reduction Below the Root Zone – Laboratory and Pilot-Scale Study of Nitrate Transport in Agricultural Soils
  Bwalya Malama
• Development of Timed-Release Organic Fertilizers to Improve Nitrogen Management in Organic Strawberry Production
  Joseph Blankinship and Joshua Schimel

• Cloud Computing Services to Optimize Water and Nitrogen Fertilizer Use Efficiency at Orchard level using Remote Sensing
  Joaquin Bellvert Rios and Susan Ustin

• Integrated Regional Irrigation and Fertilizer Management for Groundwater Protection
  William Green and Kaomine Vang

• Reducing Orchard Leakiness through Controlled Very High Frequency Low-N Fertigation using Micro-Irrigation Systems
  David Smart, Sharar Baram, and Kristin Steger

• “How Does Your Garden Grow?”
  Judy Culbertson and DeAnn Tenhunfeld

• San Joaquin Sustainable Farming Project (SJSFP) Fertilizer Education Outreach Project for almond and cotton growers
  Marcia Gibbs

• Determination of the appropriate rates and the effect of cow urine on soil properties and cauliflower yield at Harar, Ethiopia
  Birhanu Messele

• Development of a dynamic crop model for a better understanding of water and nitrogen management of almond orchards in California
  Philippe Stoop and Theodore DeJong

• Combining DeNitrification-DeComposition (DNDC) modeling with grower decision support tools to mitigate N2O emissions in dairy forage and cool season vegetable production systems
  Martin Burger

• An online tool for optimization of irrigation and fertigation management
  Maziar Kandelous, Patrick Brown, and Toby O’Geen

• Effect of soil profile and irrigation practice on tree root systems
  Maziar Kandelous and Patrick Brown

• Impact of organic matter amendments on nutrient availability in conventional almond production
  Patrick Brown

• Effects of tannins-added dairy liquid manure on greenhouse gas emissions, nitrogen cycle, fertilization of corn, and microbial community of manure-amended soil
  Pramod Pandey, Frank Mitloehner, Alejandro Castillo, and Richard Jeanotte
- Solution Center for Nutrient Management: outreach on organic amendments for sustainable crop production
  Sonja Brodt, Kate Scow, and Robert Wilson
- Sustainable Agriculture Through Water and Nutrient Management and Soil Health
  Tony Walters and Lorrie L. Steely
- Vermicompost Education and Outreach
  Trent Sommers and Andres Nantkes
- Testing and Refining the IrriQuest Decision-Support Tool for Derivation of Agricultural Water Use Fractions in California
  Lee Johnson
- A Web-Based Platform to Manage Leaching Fraction
  Shawn Ashkan and David Zoldoske
- Optimized integrated manure and mineral N fertilizer inputs for corn forage systems
  Amélie Gaudin, Kate Scow, and Daniel Geisseler
- Nitrogen Management Education for Socially-Disadvantaged Organic Farmers in the Salinas Valley
  Nathan Harkleroad
- Translating Low-Cost, Site-Specific Measurements to Best Nitrogen (N) Management Practices in California Wheat
  Mark Lundy, Steve Orloff, Nicholas Clark
- Education and Outreach on Biochar: Water, Fertility, and Environmental Impacts
  Milt McGiffen et al.
- Adjusting the Use of Controlled Release Fertilizer to Optimize Nitrogen Management in Conventional Strawberry Production
  Chris Coburn
- Quantifying the agronomic and ecosystem services benefits of walnut shell biochar as a soil amendment in small farm carrot production
  Garrett Liles
- Reducing N Inputs up to 30% in Bearing Almonds
  Greg Baker and Rick Ventanovetz
- Providing Education to California Agriculture Growers on how to Improve and Sustain Soil Health
  Greg Baker and Rick Ventanovetz
- Microbial Inoculants can Enhance Root Growth and Nitrogen Uptake of Tomato
  Hossein Zakeri, Lee Altier, Rich Rosecrance, Garret Liles, and Kishore Joseph
The subcommittee agreed the FREP staff will send a letter to each of the project leaders, informing them that their concept proposal was selected or not selected for advancement to the full proposal phase. The deadline for the full proposals is May 16, 2016.

AGENDA ITEMS FOR FUTURE MEETINGS

The focus of the next meeting is discussion and recommendation of the full proposals. TASC proposed that new ideas and suggestions for the 2017 research priorities be briefly discussed as well.

NEXT MEETING

The date of the next meeting will be scheduled through a Doodle poll.

ADJOURN

MOTION: Mr. Chuck Hornung moved to adjourn the meeting; Mr. Rex Dufour seconded. The motion passed unanimously by present subcommittee members with a vote of 5 – 0.

Dr. Eric Ellison adjourned the meeting at 4:45 PM.

Respectfully submitted,

Dr. Barzin Moradi  
Senior Environmental Scientist (Supervisory)  
Fertilizer Research and Education Program

Date