

**Fertilizer Research and Education Program (FREP)**

**Technical Advisory Subcommittee (TASC)**

California Department of Food and Agriculture (CDFA)

WEB CONFERENCE MEETING

(916) 900-5022

**March 18, 2021**

**9:00 AM**

**MINUTES**

**TASC Members**

**CDFA Staff**

Dr. Jerome Pier, Chair

Daniel Rodrigues

David McEuen

DD Levine

Dr. Ben Faber

Dr. Jan Hopmans

Dr. Lisa Hunt

Dr. Sebastian Saa

Dr. Steven Petrie

Dr. Suduan Gao

Dr. Tom Bottoms

Dr. Amadou Ba

Dr. Emad Jahanzad

Dr. Martin Burger

Jennifer Harmon

Maria Tenorio Alfred

Mark Cady

Natalie Jacuzzi

Nicole Crouch

**WELCOME AND INTRODUCTIONS**

Dr. Jerome Pier, Chair, called the meeting to order at 9:01 am.

Introductions were made and a quorum was established.

**REVIEW AND APPROVE MINUTES**

Dr. Pier requested the subcommittee review the minutes of the November 24, 2020, meeting.

**MOTION:** Daniel Rodrigues moved to approve the November 24, 2020 minutes as written; Dr. Tom Bottoms seconded. The motion passed by present subcommittee members with a vote of 11 – 0.

**department, division, and branch updates**

Dr. Amadou Ba discussed staff changes within the branch. Maria Tenorio Alfred has accepted the Research Data Specialist II position and Nick Young has accepted a promotion to Environmental Program Manager I for the Fertilizing Materials Inspection Program (FMIP).

Dr. Ba discussed an ongoing case of adulteration in organic input materials from an out-of-state licensee that has been elevated to the CDFA Legal Office, and the Attorney General is now also involved. The product has been quarantined statewide and a stop sale order has been issued.

The FMIP has been working with United States Department of Agriculture’s (USDA) National Organic Program (NOP) on ammonia extract products that have been registered by CDFA. CDFA has attended meetings pertaining to per-and polyfluoroalkyl substances known as PFAs and PFOAs. The potential seepage of these substance into food system from containers is an interest of the US Environmental Protection Agency. Another issue of interest to CDFA is the possibility of micro-plastics coming into agricultural systems from biosolid materials.

Mark Cady discussed a presentation he gave to the Fertilizer Inspection Advisory Board (FIAB) on activities for FREP, which included a brief review of water quality regulations, including the Irrigated Lands Regulatory Program (ILRP) and the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) Nitrate Control Program.

Cady further discussed FREP’s investments in training, research and development, including training for growers and Certified Crop Advisers (CCAs). FREP will likely pursue activities outside of the traditional grant program to support growers’ compliance needs by investing FREP funds in Cooperative Extension Community Educators and Mobile Irrigation Laboratories.

**UPDATES ON IRRIGATION AND NITROGEN MANAGEMENT TRAINING**

Cady informed the TASC that the Nitrogen Management Training for CCAs through the University of California Agriculture and Natural Resources (UCANR) transitioned this year to a California Nitrogen Management Specialty training. With FREP and UCANR cooperation, the International CCA program has created a program that will be recognized by the Regional Water Boards for CCAs certifying required Irrigation and Nitrogen Management Plans. UCANR has developed a training program to help new CCAs pass the specialty exam. CCAs who took the previously offered CDFA/UCANR in-person training will be grandfathered into the new specialty, but new CCAs must pass the test for this specialty.

Nicole Crouch discussed recent changes to the Irrigation and Nitrogen Management Training Program, based on an evaluation conducted in the summer of 2020. As of March 1, 2021, the training program previously managed by the Coalition of Urban and Rural Environmental Stewardship (CURES) has transitioned to being managed by CDFA’s FREP. The training program also moved to an online platform, which has provided flexibility and increased passing rates. An Ad Hoc committee will be formed to further advise the direction and development of the training program. Along with these changes, FREP plans to play a larger role in outreach and education and aims to become a resource hub for growers.

**TASC Bylaws**

Cady discussed updates to be made to the current TASC bylaws, which cover the primary functions of TASC, grant proposal agreements, FREP activities and TASC Terms and Membership.

**MOTION:** Dr. Ben Faber moved to accept the TASC Bylaw revisions as written; Dr. Steve Petrie seconded. The motion passed by present subcommittee members with a vote of 11 – 0???

**2021 REGULAR CONCEPT PROPOSALS**

Dr. Pier led discussion in reviewing and voting on the 2021 concept proposals; 20 proposals were received for the Regular Request for Proposals (RFP). TASC voted a majority “yes” for the following 11 proposals. The authors will be invited to submit full proposals.

* Nitrogen fertilizer and irrigation best management practices for the low desert sudangrass production systems   
  *Bachie, O., Montazar, A., Latack, B.*
* Nutrient Management and Irrigation Efficiency Outreach and Education for Latino and Southeast Asian Farmers *Carrasco, C., Stein, T.*
* Availability of nitrogen from surface-applied organic amendments and composts in vegetables and orchards *Geisseler, D., Lloyd, M., Khalsa, S.D., et al.*
* Introducing denitrification woodchip bioreactors to the nursery and floriculture industry in San Diego County *Spinelli, G.*
* Quantify and model overlooked pathways of nitrogen loss from organic inputs across contrasting soil types *Bowles, T., Arora, B., et al*
* Managing Irrigation and Nutrition in Soilless Substrates *Oki, L., Haver, D., et al*
* Nutrient Guidelines for Vegetable Crop Transplant Nurseries *Oki, L., Pitton, B., Merhaut, D.*
* Barriers to adoption of N management practices and N use efficiency *Khalsa, S.D., Lubell, M., et al*
* Evaluating the effects of liquid ammonia products from organic sources on crop growth, soil organic matter stability and N mineralization *Zhu-Barker, X., Horwath, W.*
* Development of Date Palm N fertilization rates and nutrient demand curves *Wright, G.*
* Distributed Water and Fertilizer Delivery for Minimizing Nitrogen Losses by Leaching and Volatilization  
  *Ghezzehei, T.A.*

TASC voted a majority “no” for the nine following proposals.

* Mini-livestock fertilizers, Bio Char, Fermented Juices, Oriental Herbal Nutrients   
  *Scherer, K.*
* Developing remote sensing-based nutrient and irrigation management zone delineation decision support tools for the Central Valley Ca *Haghverdi, A.*
* Optimization of liquid fertilizer injector management inn nursery and floriculture in San Diego County *Spinelli, G.*
* Optimizing nitrogen management in aged manure used for vegetable production  *Lazcano, C.*
* Irrigation and nitrogen use optimization for Central Coast specialty crops to reduce nitrogen losses from organic kale production *Solares, N.*
* How do organic inputs alter soil structures, organic nitrogen pools and complexation of trace metals in avocado groves? *Lipson, D., Rodrigues, J., Barlow, J.*
* Evaluating proximal and remote sensing technologies for effective on-farm Nitrogen management  
  *Daccache, A., Geisseler, D., Najm, M.A.*
* Evaluating nutrient availability patterns in biosolids *Mathesius, K.*
* Nitrogen application and management strategies for new subsurface moisture plume irrigation system *Mauk, P.*

**PUBLIC COMMENTS**

No public attendees.

**AGENDA ITEMS FOR FUTURE MEETINGS**

No future agenda items were discussed.

**NEXT MEETING**

The next meeting will be scheduled for July 2021 via Doodle poll.

**ADJOURN**

**MOTION:** Daniel Rodrigues moved to adjourn the meeting; Dr. Tom Bottoms seconded the motion. The meeting was adjourned at 2:25 pm.

Respectfully submitted,

**Original Signed by Mark Cady 3/30/21**

Mark Cady Date

Senior Environmental Scientist (Supervisory)

Fertilizer Research and Education Program