

**California Department of Food and Agriculture (CDFA)**  
**Minutes**  
of the Meeting  
of the Seed Advisory Board (SAB)  
Held on Wednesday, May 5, 2021

**SEED ADVISORY BOARD MEMBERS**

**Members Present:** Greg Cassel, Emily Clay, Scott Emanuelli, Kelly Keithly, Kraig Kuykendall, John McShane, Greg Orsetti, Robert Simas, Bill White

**Members Absent:** Joe Baglietto, Mike Campbell

**OTHER ATTENDEES\***

Riad Baalbaki, Cheryl Blomquist, Ha Dang, Jovan Djordjevic, Sandra Elles, Jill Hagenston, Umesh Kodira, Joshua Kress, Emi Kuroiwa, Brenda Lanini, Alex Lysak, Bill Matthews, Erica Moore, John Palmer, Robert Price, Daniel Sumner, Allen Van Deynze, Connie Weiner, Hana Yokoyama-Hatch, Chris Zanobini

\*as self-reported in the GoToWebinar application or sign-in sheet

**CALL TO ORDER AND ROLL CALL**

Bill White, Chair, called the meeting to order at 8:10 a.m. and conducted roll call. A quorum was present for the Board.

**SEED SERVICES PROGRAM FUND CONDITION AND BUDGET UPDATE**

Brenda Lanini presented the Seed Services Fund Condition. Assessments for the current year did not drop due to the COVID-19 pandemic, as was previously projected. There were no projected changes to total expenditures for this meeting, but the program expected spending to be under budget for the year. Lanini noted that the expenditures of Unclaimed Gas Tax funds for county activities were pass-through money, and were not listed in the Seed Services Program Budget. Lanini noted likely fluctuations in staff salaries due to staffing changes and statewide pay cuts. In-state travel was expected to be lower than current projections and out-of-state travel would likely not occur. Lanini noted that IT equipment costs could go up due to increases in teleworking and digitalization of work.

The Board asked about the fluctuation to the Seed Lab budget for fiscal year (FY) 2020/21. Lanini noted that the decrease was likely due to temporary expenditure reductions during the pandemic. Umesh Kodira added that a surplus in funds from the division for that FY had helped to cover the encumbered cost of maintenance and other facilities items. Lanini noted that a more detailed budget would be provided at the next meeting.

Kelly Keithly moved for the board to approve and accept the report from the Seed Services Program. Greg Orsetti seconded. There was no further board discussion or public comments.

#### Board Motion

The Board voted to approve and accept the Fund Condition and Budget Update from the Seed Services Program.

Motion: Kelly Keithly  
Second: Greg Orsetti

#### Details of Board Vote

In Favor: Greg Cassel, Emily Clay, Scott Emanuelli, Kelly Keithly, Kraig Kuykendall, John McShane, Greg Orsetti, Robert Simas, Bill White

Against: None

Abstain: None

Absent: Joe Baglietto, Mike Campbell

### **SEED BIOTECHNOLOGY CENTER REPORT**

Jovan Djordjevic and Allen Van Deynze presented the Seed Biotechnology Center (SBC) report. Djordjevic announced that Dr. Imtiyaz Khanday would be the new Research Director for SBC. Khanday was an Assistant Professor in Plant Reproductive Biology/Seed Biotechnology Center and a Postdoc Fellow in Seed Development and Synthetic Apomixis. Khanday specialized in Plant Development and Genetics.

During the prior year, all in-person classes were canceled due to the pandemic, and new online classes were developed. New online classes included Hemp Breeding and Seed Production, Hybrid Breeding Strategies, Statistics & Experimental Design, Plant Breeding, Seed Production, and Seed Business 101. The hope was to start in-person courses again in September 2021.

Van Deynze noted that SBC had been working to boost awareness with students regarding the American Seed Trade Association (ASTA) and the California Seed Association (CSA). They had invited approximately 90 students to join ASTA and CSA meetings to increase student interest. Van Deynze also discussed the Student Collaborative Organic Plant Breeding and Education (SCOPE) project, a student led breeding program with hands-on plant breeding training. Van Deynze also mentioned that he was the Vice Chair for the National Association of Plant Breeders Borlaug Scholars, a membership program for undergraduate and graduate students that provides funding for students and provides them with industry or academic mentors for a year. There were 18 students within the program for 2021.

Van Deynze reviewed some of the research grants at SBC. The grant for mechanical harvesting in peppers had been renewed. The spinach breeding program continued to be funded through the California Leafy Greens Board, and additional funds from the CDFA Specialty Crops Block Grants had also just been renewed. The tomato seed quality program continued to be funded by a USDA grant.

Van Deynze also noted that current funding of the SBC by CDFA would be expiring on June 30, 2022, and that the SBC would be providing a full budget for board approval at the next meeting to ensure funding continues. The Board asked if SBC had any grants with the Spinach Seed Committee, and Van Deynze noted that they had two grants that they were working on with them.

Greg Cassel moved for the board to approve and accept the report from the SBC. Kraig Kuykendall seconded. There was no further board discussion or public comments.

#### Board Motion

The Board voted to approve and accept the report from the UC Davis Seed Biotechnology Center as presented.

Motion: Greg Cassel  
Second: Kraig Kuykendall

#### Details of Board Vote

In Favor: Greg Cassel, Emily Clay, Scott Emanuelli, Kelly Keithly, Kraig Kuykendall, John McShane, Greg Orsetti, Robert Simas, Bill White

Against: None

Abstain: None

Absent: Joe Baglietto, Mike Campbell

### **RESEARCH CONCEPT – THE ECONOMIC IMPACT OF THE SEED INDUSTRY**

Daniel Sumner presented The Economic Contributions of the California Seed Industry project proposal. Sumner reviewed the background for the project. The California seed industry is a major contributor to California agriculture, to agricultural innovation globally, and to California's economy. In 2009, as part of a previous study funded by the SAB, it was estimated that the seed industry generated over \$2 billion in revenue and accounted for over 6 percent of global seed market value. The economic contributions of the California seed industry have evolved over the past dozen years and this proposed study would assess those changes and extend the measures of contribution to include agricultural research and development. The California seed industry is a vital input to commercial crop production in California, enhances crop productivity, and leads to greater global food security, safety, and economic viability.

The Objectives for the proposed project were as follows:

*Objective 1:*

To describe and measure the role of California seed industry in California agriculture and the economy of California by adapting and enhancing standard models. The models produce a long list of economic variables that characterize the direct, indirect and induced impacts.

*Objective 2:*

To describe and measure the value of the California seed industry's contributions toward global food security, nutrition, and food safety through research and development in California.

Achieving the first objective, measuring the direct, indirect, and induced impacts of seed industry activities on the California economy, would involve constructing an input-output model (I-O model). The I-O model would account for the array of economic transactions between the seed industry and other sectors of the economy and would assess the magnitude of jobs created, labor income and total value added generated, as well as other statewide economic impacts resulting from commercial seed development, production, processing, and marketing activity.

Construction of the I-O model would be done using the modeling system IMPLAN. IMPLAN uses a comprehensive model of the economies of each U.S. state divided into specific but broad economic industry sectors. Although the IMPLAN group provides a valuable tool for conducting economic impact assessment, the representation of specific industries within the IMPLAN database was challenging. IMPLAN did not have a specific sector designated for the seed industry, therefore they would need to adapt the model and accompanying data sets to create a sector to represent the economic relationships and contribution of the seed industry. To do this, they would require additional data not within IMPLAN.

The study would rely on both public and industry-supplied data to describe the seed industry of California and its relationships with the rest of the economy. Publicly available data on seed production in the United States was severely limited. USDA provided production data by state on flower seed, vegetable seed, and various grass and forage crop seeds in the Census of Agricultural. For field crops, seed production data was usually combined with commodity production data in the USDA data sets, making it difficult to ascertain separate seed production and marketing data. Public data that measures the inputs, labor use, or total revenues earned by the seed industry was not available.

Due to the limitations outlined, primary economic data (costs of production, number of people employed, salaries and benefits paid, gross revenues) would be collected from the seed industry that accounts for the industry size and relationships with other industries. The accuracy of empirical results would depend on the quality of primary

data provided by the seed industry. The explanation and quantification of the R&D and innovation contributions of the California seed industry would require a distinct treatment. This would not use the IMPLAN framework with standard multipliers, but instead would be quantified in terms of the economic payoff to agricultural innovation and the improvement of productivity growth.

The results would be presented in a final report with several chapters that included a descriptive narrative and tables and charts with data results of statistical and simulation models. Results would also be presented in academic journal articles and several outreach publications. The project would be directed by Professor Daniel A. Sumner. Project scientist Dr. William Matthews and a graduate-student researcher would conduct modeling and data analysis. The total direct cost of the project was estimated at about \$50,000, including data gathering, working with seed industry experts, data analysis and modeling, and preparation of reports and presentations.

The board discussed the usefulness, accuracy, and costs of the study. Sumner informed the board that the study could be used to provide data to defend the industry, inform regulations, support grants, and promote individual decision-making. The frequency of renewing such a study depends on how fast the industry changes. Sumner said that a previous issue was getting responses from industry firms with a survey, however promoting the study would increase turnout and provide value for the industry. The board appreciated the promise of a better look at the R&D information the survey will provide. To account for any currently unknown additional costs above the estimated \$50,000, the board decided to set a limit to the cost at \$60,000.

Cassel moved for the board to recommend funding the proposed research project at an amount not to exceed \$60,000. Scott Emanuelli seconded. There was no further board discussion or public comments.

#### Board Motion

The Board recommended funding the proposed research projected “The Economic Impact of the Seed Industry” as presented, at an amount not to exceed \$60,000.

Motion: Greg Cassel

Second: Scott Emanuelli

#### Details of Board Vote

In Favor: Greg Cassel, Emily Clay, Scott Emanuelli, Kelly Keithly, Kraig Kuykendall, John McShane, Greg Orsetti, Robert Simas, Bill White

Against: None

Abstain: None

Absent: Joe Baglietto, Mike Campbell

## **SEED SERVICES PROGRAM RECENT ACTIVITIES**

Lanini presented the Seed Services Program Activities Update. For FY 2020/21, 648 firms registered to sell seed, along with 224 “doing business as” seed firms. Of these seed firms, 369 were in California, 262 were out of state, and 17 were international. Lanini also reported revenue received in FY 2020/21: \$27,256 from registration and late fees; \$2,104,587 from Assessments; and \$21,604 for late assessment penalties. The total income for FY 2020/2021, including interest income, was \$2,194,107.

Lanini noted staffing changes within the Seed Services Program. One Environmental Scientist retired in August 2020. This position was filled in December 2020. Another Environmental Scientist left in June of 2020 and that position was also filled in December 2020. Currently, the program was at full staff with: 1 Senior Environmental Scientist, 1 Program Analyst, and 4 Environmental Scientists.

Lanini presented the new Seed Law Enhancement Program (SLEP). 54 Counties had chosen to participate in SLEP. 130 firms had been added to the county inspection lists. The Seed Services Program had also held three Seed Law Labeling training webinars for county staff led by Alex Lysak and Hana Yokoyama-Hatch. 215 County personnel from 39 counties had participated so far. Once the Seed Law Labeling training was complete, the program planned to provide additional training webinars to help counties enforce seed law.

Lanini discussed ongoing program concerns with changes in lot. There had been recurring issues with part of a raw seed lot being conditioned with no change in lot number to reflect the change of the seed, as well as a lack of seed labeler information. The board expressed concern with this issue. Lanini noted that the seed needed to have a labeler’s name and address on seed containers to comply with the California Seed Law. Members decided to discuss this issue further with a wider representation of industry at the next California Seed Association’s meeting in order to gather more information.

Lanini noted reported incidents of seed labeled as hemp, sold from California into other states, that upon grow out was identified as cannabis (THC content greater than 0.3%). There was currently no marker for THC genetics, therefore you could not tell the difference between cannabis and hemp seeds without growing them out. The program was keeping an eye on this ongoing topic, as it was becoming an issue in many states.

Seed Services Program staff were also working on: a more efficient way to audit the self-assessments from firms; continuing training of county staff; and participating in discussions and actions regarding seed borne diseases (i.e., *Cucumber green mottle mosaic virus* and *Tomato brown rugose fruit virus*).

The board asked about the status of hemp registration and assessment. Lanini reported that firms that sell hemp seed were registered starting in 2020, but that the assessment was collected in arrears so any information on assessments would not be available until after July 31, 2021.

The board asked for an update on the financial status for SLEP at the next meeting, and expressed concerns about the funding sunset. Sandra Elles clarified the ongoing source of funding for the program, and noted that the current agreement between CDFA and the California Agricultural Commissioners and Sealers Association (CACASA) ran through FY 2023/24. Elles expected there to be reductions in Unclaimed Gas Tax funds within the next 10 years as the state continues to push for zero emission vehicles, but there had been no impacts to available funding at that point, and had continued to see increases in recent years.

Orsetti moved for the board to approve and accept the report from the Seed Services Program. White seconded. There was no further board discussion or public comments.

#### Board Motion

The Board voted to approve and accept the Recent Program Activities Update from the Seed Services Program.

Motion: Greg Orsetti  
Second: Bill White

#### Details of Board Vote

In Favor: Greg Cassel, Emily Clay, Scott Emanuelli, Kelly Keithly, Kraig Kuykendall, John McShane, Greg Orsetti, Robert Simas, Bill White

Against: None

Abstain: None

Absent: Joe Baglietto, Mike Campbell

### **SEED LABORATORY ACTIVITIES**

Riad Baalbaki gave an update on activities for the CDFA Seed Laboratory. The percentage of label compliance violations to date for FY 2020/21 was similar to previous years, including between kinds of violations. Service sample numbers were consistent with previous years, and Baalbaki observed that the pandemic has not affected these numbers in any significant way. Other activities had included participating in a seed lab uniformity study with ASTA and AASCO, training and validating existing testing rules. In response to a question about turnaround times for samples, Baalbaki stated that figures for FY 2020/21 would be provided at the next meeting.

Kuykendall moved for the board to approve and accept the report from the seed laboratory. Orsetti seconded. There was no further board discussion or public comments.

#### Board Motion

The Board voted to approve and accept the report from the CDFA Seed Laboratory as presented.

Motion: Kraig Kuykendall  
Second: Greg Orsetti

Details of Board Vote

In Favor: Greg Cassel, Emily Clay, Scott Emanuelli, Kelly Keithly, Kraig Kuykendall, John McShane, Greg Orsetti, Robert Simas, Bill White

Against: None

Abstain: None

Absent: Joe Baglietto, Mike Campbell

**ADDITIONAL PUBLIC COMMENTS**

None.

**NEXT MEETING/AGENDA ITEMS**

The Board proposed the following agenda items for the next meeting:

- SBC grant renewal
- Change of lot – report back from CSA
- SLEP expenditures/funding
- Seed Services Program budget
- CDFA Seed Lab budget
- New board member nominations

The next meeting was tentatively set for Tuesday, November 9, 2021, with the location to be determined based on CDFA rules and status of the pandemic.

A meeting of the Nomination Committee (Bill White, Greg Orsetti, and John McShane) was set for September 15, 2021, via webinar.

**ADJOURNMENT**

The meeting was adjourned at 10:30 a.m.

Respectfully submitted by:

Erica Moore, Associate Governmental Program Analyst  
Seed Services Program  
California Department of Food & Agriculture