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| AEIC 2024 Spring Meeting Minutes |
| AEIC LogoP.L. Hunst, AEIC Secretary |
| Hosted by Bayer Crop Science, April 17-18, 2024 |

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**AEIC Spring 2024 Meeting Minutes**

**April 17-18, 2023**

**St. Louis, MO**

*P.L. Hunst, Secretary*

The AEIC Spring 2024 Meeting was held on April 17-18 with approximately two-thirds of the attendees in-person and the other third joined virtually. Donna Houchins, AEIC Past- President, welcomed everyone to the meeting and presided over the attendee introductions following the antitrust reminder.

Sonya Franklin, VP Seeds & Trait Safety, Bayer Crop Science, welcomed the group to St. Louis and gave an overview of Bayer. Bayer’s mission is “health for all, hunger for none”. Bayer is a life science and health care company made up of three divisions—Crop Science, Pharmaceuticals and Consumer Health. Crop Science engages in innovative cropping systems, seed/trait technology, and sustainable crop protection. Pharmaceuticals produces prescription products for cardiology, women’s healthcare, vision drugs, etc. Consumer Health deals with products for over-the-counter market. Innovation is an integral part of Bayer. Goal is to produce more crops with less, i.e. producing more and restoring more. There is also a regenerative focus. The idea is to be outcome-based by being flexible, efficient and modernize techniques.

**AEIC BUSINESS MEETING**

**Approval of 2023 Fall Meeting Minutes:** A motion was made and seconded to approve the minutes posted on the website. Motion was approved by member vote.

**Treasurer Report (L. Muschinske):** The Treasurer presented the 2024 proposed budget as follows:



Ending Balance Trend (Short-term):



To offset meeting costs, registration fees and/or dues fees will most likely be adjusted by the Board. The cost of the group dinner/person will fluctuate.

**Membership Update (L. Muschinske):** The following table depicts the current membership composition of AEIC:



Ethos Biosciences and Prairie Aquatek dba Houdek Manufacturing are not renewing memberships. Two new members were added: James Haudenshield and Ferris Genomics.

**Fall Meeting 2023:** Eurofins GeneScan offered to host the Fall Meeting 2024 in New Orleans. Eurofins FCT offered to host the Spring 2025 meeting in Madison,WI.

Suggested topics: Crop focus on sugarcane/sugar beet or rice; Generating antibodies; Protein production; GM bananas; HB4 wheat; GM eucalyptus; GM chestnut issues; Cybersecurity; Gm petunias fiasco; New Technology such as next gen detection methods (nanoparticles).

**Protein Working Group Updates (C. Ament/Eurofins):** The Protein Working Group (PWG) is co-chaired by Chis Ament (Eurofins) and Mark Bednarcik (Syngenta) The PWG currently has 5 active work streams (Multiplex Validation, MS for Protein quantification, Allergen Analysis, Extraction Efficiency, Intractable Proteins/Characterization). The **allergen analysis group** is working on a draft outline for a paper on Human Serum Screening in Allergenicity Assessment of GM Crops. The group is looking for an additional co-chair. The **multiplex validation** is finalizing a first draft of a manuscript on guidelines. A more extensive review will be done in Q3. The **MS protein quantification group** has published their paper: <https://pubs.acs.org/doi/epdf/10.1021/acs.jafc.3c09188>

The **extraction efficiency** is discussing methodologies for establishing extraction efficiency. The whitepaper will be published on the AEIC website once all reviews are complete. The **intractable protein** group has drafted a manuscript for protein safety assessment of intractable proteins in GM crops. The manuscript has been sent to the companies for internal review.

**Composition Working Group (B. Fast, Corteva):** The group is working on ways to support acceptance of combustion (Dumas) vs the Kjeldahl method in the biotech industry for estimation of crude protein levels. The literature review is done. The CWG had collected samples for corn and soybean and had them analyzed by EPL and Eurofins. There was good agreement for the crude protein values for the corn samples by both methods. There was little agreement on crude protein for the soy samples using either method. It was surmised this may have been due not drying the soy samples prior to analyses. The soy portion will be repeated with dried samples over the summer. The group will also begin discussions on the harmonization of compositional analytes.

**Nucleic Acid Working Group:** The group has 24 members. The NAWG has updated the slides on the AEIC website with latest technology information such as information on NGS methods, digital PCR, RT PCR, endpoint PCR, isothermal methods. The group will need two co-chairs as both have stepped away. There are initiatives to continue.

**Website Updates (D. Houchins, Romer Labs):** Each image used in the updated slides from the NAWG will need affirmation of the ability to use. The old, original images can be re-used. The Board has decided to set up a paid Google account in order to share documents for review. It was suggested that Google Meet might be used instead of MS Teams for meetings. Concern was expressed that this might be difficult to do in most companies.

**ISO Update (M. Sussman, USDA AMS):** ISO is a publishing organization and has lots of groups working on similar things. ISO TC 276 is for biotechnology, bio-banking, bioprocessing, and data management. ISO TC 331 deals with biodiversity. ISO TC 34/SC 16 is the Biomarker Group which has 45 countries interested in its work and started over 20 yrs ago. There are 8 WGs in TC34/SC16 which include: meat speciation, sub-sampling of seeds/grains, rapid nucleic acid amplification methods, biobanking for agriculture and food production, molecular biomarkers of agricultural fiber-cotton, microarray detection, genetically engineered content detection and quantification, single laboratory validation of qualitative real-time PCR. TC 34/SC 16 has 35 published standards, 11 of which are for identification of meat species. Standards being developed include biobanking for agriculture, guidelines for single lab validation of qualitative real-time PCR, a general document ISO 23918 on PCR/qPCR including new technologies (being worked on by Sherry Whitt, BASF), DNA barcoding of fish and fish products and smart farming which is the modern use of information and communication technology.

**NAICC (National Association of Independent Crop Consultants)(C. Ament, Eurofins):**

The NAICC meets January of every year. NAICC’s key issues are: a) endangered species act and biological evaluation of pesticides for registration review; b) FIFRA revision and the Protect America’s Children from Toxic Pesticides Act; c) EPA PRIA; d) IR-4 for minor crops; and e) resistance management. The next meeting will be in Monterey, CA in January, 2025.

**AFSI-CCDB (B. Fast, Corteva):** The Crop Composition Database Version 10 will be released in April 2024. Composition data is from non-GM crops. There are 17 crops and 230 analytes in database. The bulk of data is from corn and soy. Potential new crops that may be added include common bean, cowpea, pineapple, sweet potato. There ae plans to publish a new paper on the database.

**ISBR (M. Bedair, Bayer):** The International Society of Biosafety Research (ISBR) meeting was held in St. Louis, MO in late April – early May, 2023. It is an international meeting to support biosafety assessments. It is attended by regulators, academics and developers. The 2023 meeting had 15 parallel sessions, 4 workshops, poster sessions, tours in St. Louis and industry events. China and the EU did not attend. CLI had sessions on the harmonization of global data requirements. There were discussions on core study sets which created a lot of debate. The next meeting will be held in 2025 in Ghent, Belgium.

**Cereals and Grains (R. Shillito, Shillito Assoc.):** Approved methods cover a range of areas important to cereals and grains. There are 23 technical committees. Cereals and Grains also runs a proficiency sample program where samples are sent out bi-monthly. Labs analyze samples and send in results. Major milling companies rely on the data to maintain their quality programs. Cereals and Grains also carried out 25 workshops on detection and sampling methods in biotech from 2002-2015. The information from these workshops has been published in a book which is available for purchase. Membership in the organization is global. Membership fees were recently eliminated. There are 1250 members of which 122 are universities. The next meeting will be Oct 16-17 in Schaumberg, IL.

**Plant and Genome Conference (C. Wu, Bayer):** The PAG is always held in San Diego and is marketed as the largest genome meeting. There was an exhibit section for the corporate sponsors. Speaker Amy Marshall-Colon spoke on crops in silico and computational solutions for plant improvement. Speaker Dirk Inze spoke on multiplex engineering of yield traits in maize. His system is BREEDIT = BREEDING + EDITING using AI-mediated identification of causative genes. There was a session on shaping regulatory environments for commercialization of gene-edited products. Bayer sponsored a booth to host students.

**Gates Ag One Update (C. Dharmasri, Gates Ag One):** Gates Ag One has found some collaborators in Africa to work with AEIC on training programs for detection methods for protein and DNA. A call will be held April 22 with AEIC representatives.

The AEIC Business Meeting was adjourned.

**INVITED TALKS**

**Generative AI for Agricultural Biotech (J. Hogan, Google):** Inclusive innovation has always been a small group of people that bring neurodiversity, invisible diversity of the cognitive/nervous system. Neuroinclusion brings all diversity to the table. In a collaboration there are many ways of listening and participating with many stigmas attached. Intention + Perception + Perspective + Actions = Outcome. Solve for everyone by designing accessibility benefits for everyone. Solving complex problems is done by decoding complexity. Centers never move but stay true to core values and core business. Opposites must be balanced. Opposition is good but hostility is bad. Control what can be controlled because everything has its place. Plan for success. Failing to plan is planning to fail. Everything is interconnected so cannot move one without others being impacted. Keep it simple. When in doubt, go back to basics. Consider integration as a lot of things could be really awesome. Be inclusive by considering accessibility for all. And have a sense of humor. AI use started at Google and in 2024, the Gemini model was released for protein modeling. Google identified a huge challenge and came up with AlphaFold protein identification. Agricultural problems include increasing food production by 2050 and harness climate change. To help need to provide farmers with a 24-hour assistant, i.e., chatbot which can be customized to research laws, gather dynamic pricing, gathering/processing telemetry data, use in crop management, disease modeling, drought management. Google Earth has been used to help farmers identify roads and land for improvement.

**U.S./Global Genome Editing Policy and Regulatory Landscape (M. Vega-Sanchez, Bayer):** Plant science is always evolving and ranges from traditional breeding methods to GMOs. Gene editing (GE) is in between. Bayer is prioritizing open innovation, transparency and sustainability of GE by supporting start-up companies such as Pairwise and CoverCress through collaboration and grant programs. GE is stuck in the middle of regulations, i.e., some countries consider GE products to be same as GM and others consider them to be non-regulated. Government agencies use the edit-by-edit evaluation. The Seed Federation has stated that plant varieties developed through the late breeding methods should be differentially regulated. GE regulation is a complex regulatory system globally. There is some regional collaboration between countries. Timing also varies globally between months to years. The three U.S. agencies have oversight of GM and GE plants. The system is mostly positive with voluntary notifications and differs from GM. There is a pending lawsuit at USDA against the GE process. The American Seed Trade Association (ASTA) is actively engaged in policy developments in the U.S. and globally. There are some GE products available in niche markets. These tend to be expressing quality traits but it also shows that there are more players in these markets. Canada actually exempts some classes of GE. The trigger is whether there is foreign DNA in the final product. LATAM has initiated regulations locally. The EU has a proposal to create exemptions for GE. Category 1 plants must meet specific criteria and are subject to verification. All other NGT (new genetic techniques) fall in category 2. The timeline for approval of process is somewhere between 2025-28. There are positives for international policy: a) growing alignment in recognizing that not all GE plants should be treated as GMOs; b) case-by-case consultation process; c) early-stage consultation available in many countries; and d) regional harmonization is underway. Challenges include: a) differences in information required for review; b) differences in regulatory timeline reviews; c) lack of experience with more complex edits; and d) edit bey edit review. All regulatory frameworks agree that conventional products can be generated via GE. Using editing in the breeding process is where GE can make the highest impact to drive innovation and advance agriculture. It is time to move away from edit-by-edit approvals and move more to conventional breeding approvals.

**The Changing Landscape of the Grain Trade (J. Voight, JFV Solutions):** The segments of the grain trade include inputs (seed, fertilizer), producer,grain/handling/storage, processors, logistics, consumer, and government regulation. The factors that affect the grain trade are economics, inflation, global politics, and social/economic factors. There are also cultural shifts such as domestic politics, supply chain challenges, labor availability, artificial intelligence. Have not added enough agricultural production land to keep up with the rising population. Advances in technology have been increasing to keep up with demand. For producers, the trend is larger farms and improved information sourcing. Tillage has improved as wells as increased application of precision agriculture. Producers are also using biotechnology, automation and marketing. However, there is also inadequate succession planning and issues with carbon neutrality. The grain trade is also affected by the consolidation of commercial elevators, higher capital equipment, increase in rail shipping vs by ships, higher levels of testing, a shrinking labor pool, introduction of FSMA into the supply chain and consolidation in equipment/bin manufacturers. For marketing, there is greater access to global data and events; more pressure to show the value of the country elevator system; a change back to carry markets; increased activity in overnight trading and an increase in the usage of algorithmic trading; greater influence of China and Brazil on the markets; and increased barriers from tariffs, trade barriers and geopolitics. For processors, consolidation, globalization, expansion and advances in technology all affect them. Farm consolidation is very active right now, especially in Iowa and Illinois. Numbers of small farms is fairly constant but the mid-size farms are either getting larger or leaving farming. Elevators are also consolidating with only 4 major traders now. Cooperatives are consolidating for competitive reasons but also keeping local elevators open even if they are losing money. Technological changes in mechanical, chemical and biological are occurring. Mechanical changes have occurred in tillage, irrigation equipment, automation and AI. Chemical changes have occurred in realizers and pesticides. For biological, there has been seed and trait improvement. Grain storage/handling is receiving upgrades and increased capacity. Storage upgrades include capacity and aeration; drying upgrades include capacity and moisture management; and handling upgrades include capacity and quality integrity. Processing has seen feed use remain constant but fuel use will shrink as projected through 2027. For soy, oil production rises to meet growing domestic demand but biodiesel is flatlining. Processors need an outlet for soy meal. There is an oversupply of renewable diesel which is affecting new plants coming online. For logistics, grain is moved from the farm to the elevator by truck. Then the grain is moved by truck to trains. Since the Panama Canal is lake fed and there are no rainy seasons, the availability of water is down. The new locks recycle water. Moving products through canal is done by an auction system and grain handlers cannot afford. Corn is now being moved around the Africa horn or through the Suez Canal which is dangerous due to attacks on ships. The population in Asia has peaked but Africa is increasing. The biggest challenge is feeding Africa.

**Genome-Edited Pigs (E. Rice, Genus):** Genus is a world-leading animal genetics supplier for over 85 years. It has 50,000 customers in 70+countries and has >2700 employees. The R&D is located in Madison, WI. Porcine reproductive respiratory syndrome (PRRS) is a global porcine disease which was recognized in the U.S. in 1987. It is caused by a RNA virus which causes fever, pneumonia, stillborn litter. Vaccines and antibiotics have been used to try to control it. Genus decided to remove the viral binding site in pigs without adding genetic material. The virus binds to the CD163 protein which is in other animals. However, the virus only binds to the protein in pigs. Domain 5 of the protein is the binding site and if this is removed, pigs would be protected. There is a single PRRS virus resistance allele in 4 pig lines. Modifying an allele should not decrease the commercial performance of the animal. The regulatory review process focuses on the edited allele vs an event. This cuts time and cost for approval. First generation pigs have the edited allele and were bred with unedited pigs. In the second generation, conventional pigs were bred with pigs with the heterozygous edit. The edit was developed using a dual guide strategy using NHEJ repair. Fifty-eight guides were screened to identify the most efficient pair. Fourteen guides were advanced for off-target screening. Less than 5 guides were screened for exon 7 dropout efficiency in blastocysts. One pair was used for zygote injection of Cas9 RNP. Multiple technologies were used to identify clean animals. These included technologies such as Illumina, Nanopore, sequence capture and Taqman. The whole genome sequence identified off-targets and demonstrated that off-targets not driven by random events in the genome. The edited pigs are PRRS-resistant as shown by evaluation using multiple Type 1 and Type II strains. The pigs are regulated by FDA as they determined the edit is a drug and the pig is the vessel. The edited pigs were evaluated for 20 phenotypic variables from birth to finishing/reproduction. No significant differences were observed and data was accepted by FDA. Also had to show no differences in meat vs conventional pigs so 97 meat quality parameters were looked at. No differences were seen and data was accepted by FDA. Genus expects FDA final approval in 2025, Genus has a positive determination in Brazil and Colombia. Submissions have also been made in Canada and Japan. The company is working on an approval in China and has started engagement with Mexico.

**Providing a Turnkey Pipelines for Agbiotech Research: Solis Agrisciences (M. Fernandes, Solis Agrisciences):** St. Louis is home to many large agrifood companies. There is also a vibrant startup ecosystem which is key to future innovation. St. Louis enables startup success in an under capitalized market. There are several key components of this ecosystem. A network of collaborators provides inventions, talent, commercialization support, funding and access to markets. 39 North is the Midwest Silicon Valley for agritech which includes the Helix Center, Danforth Center and Bayer Crop Science. This allows the startups to connect economically and physically. The Danforth Center is the anchor. The mission of the Center is to improve the human condition through plant science. It is the largest non-profit independent research institute with an operating budget of $45 million. The Helix Center was opened with a grant from the Economic Development Agency. It is a startup incubator with a focus on service and space for startups. Solis Agrisciences is a fully venture-capital backed entity that functions as a platform for all innovators to take on problems via services to support innovators. Solis’ pipeline includes gene editing, cell biology, plant growth phenotyping, and support in regulatory process. Customer comes with idea and leaves with proof of concept. Clients are mainly startups. Solis services reduce product development timeline, builds partnerships and encourages innovation by allowing startups to retain their IP. Some startups in the ecosystem include Intent Advantage, Intact Genomics and Ferris Genomics.

**AlphaFold (J. Hogan, Google):** General agricultural design pattern is to optimize yield, improve crop predictions, reduce costs to enhance and monitor sustainable farming. Google Earth has been used for analyzing plants, soil and water usage. For surface spatial temporal patterns, the USDA NASS cropland data is used. Animated gifs are created to compare with sensor data. Sentinel data is used to quantify and model. Machine learning models are built to improve decision making. Corrective actions are based on geospatial data. Sustainability is affected by geopolitical events. AlphaFold (AF) contains 214 million protein structures which are used for target identification, validation and lead identification. Protein folding problems have been identified. AF2 was validated at 2022 CASP competition and has been used for protein engineering and *de novo* protein design. It is difficult to operationalize AF so it has been integrated with virtual AI. Google Cloud and Deep Mind moved AF to Vertex AI. This provides low IT operational overheads and allows operationalization of AF. There is a YouTube video on AF Vertex AI (“Unlock biology and medicine potential with AF on Google Cloud”). Deep Mind mainly collaborates with academia.

**21st Century Structural Biology (J. Jez, Washington University – St. Louis):** Structural biology helps to elucidate how proteins fit into metabolism, environment and applications. Knowing protein structure leads to chemical mechanism, evolutionary relationships, etc. Structural biology started in the early 20th century with the first protein crystal in 1935. rDNA came about in 1972 and in 1978, computer graphics were used to elucidate structure. In 2000, the protein structure initiative by NIH was started. X-ray crystallography really took off between 1990-2000. There was also an explosion in GenBank with 200 million sequences being deposited. Crystallography involves obtaining protein, collecting X-ray diffraction data, growing protein crystals, determining the phase structure and then building/refining the protein model. Proteins can be purified by robotic gene cloning and gene synthesis. The protein is then expressed. Crystals are then grown which is a semi-automated process. The crystals are then subjected to diffraction using synchrotrons. There are several of these facilities in the U.S. The Argonne facility was revamped to supply more data. Samples sent to facilities are subjected to beamline technology which involves the use of micro-crystals and mini-beams. One hundred data sets/day are produced and mined for best data. Semi-automated structural determination is done. X-ray free electron lasers are used for diffraction by destruction, i.e., assemble a dataset from hundreds of micro-crystals tumbling out of the injector. Serial data collection is obtained from crystallization in a micro-grid. Data collection is done *in situ* and *in cellulo*. Crystallization is done in microfluidic devices. Diffraction *in cellulo* is performed in insect cells. Fragment screening in crystals is done by robotic crystallization which uses fragments of building blocks. Multi-crystal analysis (PanDDA) is done and then bulk data processing. AlphaFold retro engineers possible protein folds, however, there is no basis in biology to confirm what it does. It is a good tool to start thinking of hypotheses. It does have limited scope, confirmations and dynamics are missed but it is also an experimental accelerator to save time. Molecular design is done by Arzeda Company which uses computational design and AI, DNA synthesis, precision lab testing, data storage, analysis, learning. There are many tools for structural biology but little integration between them. Companies need to integrate steps and tools.

**Better Communication for Scientific Topics (A. Hood, Bayer Crop Science):** Why there are challenges in communicating: internet misinformation; ways news travels (no newspapers, local news limited) by social media such as TikTok; people read headlines and not whole articles. Social media is powerful but a dangerous place to play. However, we need to look at social media to see what is out there in order to understand what people are seeing. Disinformation is purposely placed by people who know it is tainted information or half-truths in to make money. Love the science, defend the science. Social media platforms are the new virtual living rooms. Conversation formula = listen for an opportunity 🡪find a shared value 🡪 share a personal story. Always listen actively, ask questions, avoid leading with facts, avoid trying to win an argument that no one is having. Find common ground with people such as family, preserving the environment or sustainability. Then tell your story. Stories synchronize the listener’s brain with the teller’s brain. Stories connect listeners to the storyteller emotionally and help to humanize science. It is okay to say “I don’t know” as it will give credibility to what you know. Owning mistakes show vulnerability. Always think about who you are interacting with,i.e., moveable middle vs those who are dug in. Feel free to walk away from those who are dug in. An engagement environment is about people and relationships, conversations and not conversions. A great interaction is the goal. Tell your story you way. There are many resources such as Bayer website, “Give it a minute” series on YouTube. GMOAnswers.com, pesticidefacts.org. The takeaways are a) talk about challenges; b) listen; and c) always bridge your story.

Attendees:

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| --- | --- |
| **Name** | **Organization** |
| Adams,Mark | Bayer Crop Science |
| Ament, Chris | Eurofins FCT |
| Asare, Prince | Bayer Crop Science |
| Atkinson, Tara | Corteva |
| Back, Stephanie | Bayer Crop Science |
| Bedair, Mohamed | Bayer Crop Science |
| Brune, Phil | Syngenta |
| Cahill, Karyn | EnviroLogix |
| Calcaterra, Jennifer | Bayer Crop Science |
| Cheever, Matt | BASF |
| Clausssen, Fred | EPL Labs |
| Coad, Megann | Illinois Crop Imp. Assn |
| Daywalt, Michael | Eurofins |
| Deege, Lora | Corteva |
| Dharmasri, Cecil | Gates Ag Innovations |
| Engbrecht, John | Corteva |
| Fast, Brandon | Corteva |
| Fendley, Ann | BASF |
| Gadola, Mary | Neogen |
| Geng, Tao | Bayer Crop Science |
| Gillikin, Nancy | BASF |
| Guan, Xia | Bayer Crop Science |
| Guo, Junhong | Bayer Crop Science |
| Harjoe, Marissa | Bayer Crop Science |
| Haudenshield, James | Individual |
| Houchins, Donna | Romer Labs |
| Huang, Mingya | Bayer Crop Science |
| Hunst, Penny | Ag Biotech Consultant |
| Islam, Shofiqul | Indiana Crop Imp. Assn |
| Joshi, Saurabh | Syngenta |
| Kenward, Kimberly | 20/20 Seed Labs |
| Klusmeyer, Tim | Bayer Crop Science |
| Kouba, Kristen | Corteva |
| Lang, Tieming | Bayer Crop Science |
| Lange, Philip | Syngenta |
| LaRue, Dustin | Eurofins |
| Lawal, Remi | Bayer Crop Science |
| Li, Bin | Bayer Crop Science |
| Liu, Zi | Bayer Crop Science |
| Makani, Mildred | Syngenta |
| Malloy, Carolyn | Envirologix |
| Mathis, Karl | Bayer Crop Science |
| Mitchell, Carter | Kemo Proteins |
| Moon, Hong | Bayer Crop Science |
| Muldoon,Mark | Romer Labs |
| Muschinske, Luke | Eurofins MBL |
| O'Brien, Brea | EnviroLogix |
| Poe, Martha | BASF |
| Ranasinghe, Dilini | EPL Labs |
| Raychaudhuri, Aniruddha | Bayer Crop Science |
| Saracco, Scott | Bayer Crop Science |
| Scaife, Ann | Eurofins FCT |
| Schaefer, Elena | Simplot |
| Shakya, Shubha | Bayer Crop Science |
| Shen, Yu | Bayer Crop Science |
| Shillito, Ray | Shillito & Assoc. |
| Shippar, Jeffrey | Eurofins |
| Skaar, Ryan | NanoBio Designs |
| Smith, Pearce | Eurofins GeneScan |
| Sondeno, Rachael | OMIC USA |
| Spiegelhalter, Frank | Eurofins GeneScan |
| Supekar, Nitin | Bayer Crop Science |
| Sussman, Michael | USDA AMS |
| Taylor, Mary | Bayer Crop Science |
| Umthun, Angela | Stine Biodtechnology |
| Verhalen, Brandy | Corteva |
| Wang, Cunxi | Bayer Crop Science |
| Wang, Yanfei | Bayer Crop Science |
| Wang, YongChen | Bayer Crop Science |
| Wang,Rong | Bayer Crop Science |
| West, Tiffanie | AOCS |
| Whitt, Sherry | BASF |
| Wiegel,Scott | Ferris Genomics |
| Williams, Dalton | EPL Labs |
| Williams.Denise | AOCS |
| Wu, Chenxi | Bayer Crop Science |
| Wu, Pei-Ying | BASF |
| Xia, Min | BASF |
| Zhang, John | Corteva |
| Zhang, Jun | Bayer Crop Science |
| Zheng, John | Indiana Crop Imp. Assn |