THE

BEAN IMPROVEMENT COOPERATIVE

TWENTY-FOURTH BIENNIAL

AWARDS PROGRAM

Huntington Club
Michigan State University
East Lansing MI
October 31, 2017

THE BEAN IMPROVEMENT COOPERATIVE

Proudly Presents the

Frazier - Zaumeyer Distinguished Lectureship

to

DAVID M. KRAMER

Hannah Distinguished Professor
Photosynthesis and Bioenergetics at Michigan State University

The **Frazier - Zaumeyer Distinguished Lectureship** was established in 2001 to recognize and honor a distinguished colleague who will present the keynote opening address at the biennial BIC meeting. The individual selected will have made outstanding and pioneering contributions to science that led to the advance of bean research. The Lecture will focus on current topics relevant to the BIC membership. The Lectureship is distinct from the other BIC career Awards such as the Distinguished Achievement and Meritorious Service Awards. Holders of these awards are not excluded from being awarded the Frazier-Zaumeyer Distinguished Lectureship. The name for the Lectureship honors the original BIC founder members, the late William A. 'Tex' Frazier, distinguished bean breeder and the late William 'Bill' Zaumeyer an equally distinguished bean pathologist. Dr. Tex Frazier working at Oregon State University is recognized for his pioneering work in developing the famous Bush Blue Lake snap bean and related germplasm. Dr. Bill Zaumeyer, USDA-ARS is recognized for his outstanding efforts in bean pathology. He is also known for being a co-author with H. Rex Thomas of the famous 'Monographic Study of Bean Diseases and Methods of Control' published in 1957. The BIC Awards Committee, the BIC President and the Local Meeting Committee Chair jointly choose the successful awardees. BIC members are asked to nominate potential recipients of the award. The Lectureship is awarded every two years in conjunction with the BIC meeting.

DAVID M. KRAMER

Dr. Dave Kramer is Hannah Distinguished Professor in Photosynthesis and Bioenergetics at Michigan State University (MSU). He holds appointments in the MSU-DOE PRL, which is supported by the U.S. Department of Energy; the MSU Department of Biochemistry and Molecular Biology in the College of Natural Science. Dr. Kramer received his B.S. in Biology and M.S. in Cell Biology from the University of Dayton and his Ph.D. in Biophysics from the University of Illinois at Urbana-Champaign. After a postdoc in Paris, France, and then rising through the ranks to professorship at the Institute of Biological Chemistry, Washington State University, he accepted the John A. Hannah professorship at MSU in 2010.

Kramer's research focuses on understanding how the machinery of photosynthesis is integrated into living organisms, which is critical for improvements in its efficiency and robustness needed to meet our future food and energy needs. Kramer's lab has made key contributions to this understanding for some time, but on joining the DOE-supported Plant Research Laboratory at MSU, he had an opportunity to approach the problem in a new way. This led to formation of the Center for Advanced Algal and Plant Phenotyping (CAAPP) and PhotosynQ, a unique team of over 40 scientists, engineers, computer programmers, computational biologists and even social scientists and economists to develop a series of novel scientific platforms that allow scientists to peer into living plants and algae and see photosynthesis at work under the harsh conditions where they grow.

Connecting to these scientific platforms, Kramer and his teams have developed for plant analyses the Environmental Photo Bio Reactor (ePBR) for algae, the Dynamic Environmental Photosynthetic Imaging (DEPI) system and most recently hand-held instruments such as the MultispeQ, With these ingenious devices and accompanying data analysis software, it is now possible to study plants and algae under conditions more closely simulating the natural environment. The focus and the goal have been on making these tools broadly available and thus enabling the larger scientific community to answer basic and applied questions about photosynthesis in novel ways. Although these tools are now being used in hundreds of research labs around the world, his team has been pushing to make these tools even more widely available, resulting in the establishment of both a spin-off company, Phenometrics, and the PhotosynQ.org project that aims to make sophisticated scientific tools accessible to broader communities to solve critical agricultural questions, especially in the developing world. These tools are unique and sophisticated. In particular, MultispeQs, which are quite inexpensive and easy to use, are being rapidly implemented by a number of bean and cowpea breeding programs and physiology field and laboratories in both the developed and the developing world (e.g., in Africa, Asia, Central and South America) with the potential for real progress in identifying traits and unique markers related to stress tolerance and productivity. Dr. Kramer is actively involved in Legume Innovation Lab projects in the U.S., Uganda and Zambia.

Dr. Kramer is the 2016 recipient of the International Society of Photosynthesis Research Innovation Award and he was also recognized in 2016 with the prestigious Charles F. Kettering award for excellence in Photosynthesis Research by the American Society of Plant Biologists. Kramer's research is supported by a number of agencies, including the U.S. Department of Energy, U.S. Aid for International Development, National Science Foundation, the McKnight Foundation and the John A. Hannah Foundation.

THE BEAN IMPROVEMENT COOPERATIVE

Proudly Presents the

Meritorious Service Award

to

Maria Celeste Gonçalves-Vidigal

Univeristy of Maringa
Maringa, Brazil

Gregory V. Varner

Michigan Dry Edible Bean Production Research Advisor Board
Breckenridge MI

Irvin E. Widders

Michigan State University
East Lansing MI

Distinguished Achievement Award

to

Deidré Fourie

ARC Grain Crops Institute
Potchefstroom, South Africa

Clare Mukankusi Mugisha

CIAT – Uganda
Kampala, Uganda

Technical Merit Award

to

Rian Lee

North Dakota State University
Fargo, ND

Evan M. Wright

Michigan State University
East Lansing MI

in recognition of outstanding accomplishments relating to bean (Phaseolus) improvement

MARIA CELESTE GONÇALVES-VIDIGAL

Professor Maria Celeste Gonçalves-Vidigal was born in Solidão, Pernambuco, in the Northeast region of Brazil. She received her Bachelor's degree in Agronomy from the Federal Rural University of Pernambuco in 1974. She worked from1975 to 1980 as Research Assistant in the Agronomy Institute of Pernambuco State (IPA). While still working at IPA she earned her Master's degree in 1979 in Plant Breeding and Genetics from the Federal University of Viçosa (UFV), a top Brazilian Agricultural Research University. In 1981, she began her academic career as an Assistant Professor in the Agronomy Department of the Maringá State University (UEM), Brazil. After teaching during eight years at UEM, Dr. Gonçalves-Vidigal went back to UFV to pursue a Ph.D. degree in Plant Breeding and Genetics, which she completed in 1993, working with Dr. Clivas Vieira, a renowned Brazilian common bean Scientist. She then returned to UEM where a year later she was promoted to Full Professor of Plant Breeding and Genetics.

Dr. Gonçalves-Vidigal has advised 10 B.Sc., 33 M.Sc., and 21 Ph.D. students, and supervised 12 post-docs. She is currently supervising two Post-Docs, eight Ph.D. and two M.Sc. students. She has published 120 journal articles with many of them in international journals including Crop Science, TAG, BMC genomics. She has also registered four genomic sequences of *Colletotrichum lindemuthianum* at the National Center for Biotechnology Information of Brazil. Dr. Gonçalves-Vidigal has been a proactive leader at the UEM. In addition to co-founding the Nupagri Agricultural Sciences Laboratory in 1994, she played a major role in the creation of the graduate Programs in Agronomy (1995) and Plant Breeding and Genetics (2002), where she served as a chair from 1995 to 1999, and from 2004 to 2008. These are highly ranked programs at the Brazilian national level that have offered affordable and high quality education to over 900 Graduate students. The success of these programs is testimony of Dr. Gonçalves-Vidigal's leadership and vision. Among her numerous contributions to the Brazilian academic community, she co-founded the Brazilian Plant Breeding Society (SBMP) and the Crop Breeding and Applied Biotechnology journal. She is currently the president of the SBMP.

Eager to keep up to date with scientific technologies and to expand her knowledge, Dr. Gonçalves-Vidigal was one of the first scientists from Agronomy Department-UEM to spend a sabbatical in the US. In 2002, she spent a one-year sabbatical as Visiting Scholar at Michigan State University in the laboratory of Dr. James Kelly. Later in 2008, she spent another year as a Visiting Scientist in the laboratory of Paul Gepts at the University of California, Davis. She has also had many other international collaborations with scientists in the U.S. including Drs. M. Melotto, Q. Song and M. A. Pastor-Corrales. These international collaborations have included student exchange and publications. The international exchange greatly benefited UEM graduate students, which were given the opportunity of working in collaboration with her colleagues.

Dr. Gonçalves-Vidigal's research is often cited and she continues to grow scientifically; her research is now expanding to include genomics. She has identified, named and mapped several genes in common bean, especially genes conferring resistance to anthracnose but also genes for resistance to angular leaf spot and rust. Ten of the anthracnose resistance gene are of Andean origin while four are Mesoamerican. She has also developed molecular markers tagging these resistance genes. Moreover, she has also released common bean cultivars including the carioca cultivar 'Flor Diniz UEM' and the black cultivar 'Awauna UEM', and has developed ten high performance lines. The new cultivars have been registered with public Brazilian institutions and their use provide profits to UEM.

GREGORY V. VARNER

Mr. Greg Varner is the Research Director for the Michigan Dry Edible Bean Production Research Advisory Board, a position that he has held since 1980. Greg grew up on a small-certified seed production farm in southern Midland County, Michigan. He graduated from with a B.S. in AgriScience Education in 1974 and earned a Masters in Crop Science from MSU in 1976. He worked for the MSU Cooperative Extension Service Crops Agent in Gratiot County, Michigan from 1976-1980 before assuming his present position as Research Director of the Michigan Dry Bean Industry serving as the Dry Bean Agronomist for the State of Michigan. He has been an active member of the Bean Improvement Cooperative since 1981.

In his current role, Greg conducts statewide bean variety trials, fungicide and insecticide trials and serves as a vital resource for both growers and the Michigan bean industry on all aspects of bean production and management. He works closely with breeders and researchers at MSU in a wide array of extension and educational roles and has participated in the release of over 40 new dry bean varieties. Greg runs the statewide testing program that provides a vital service in the evaluation of new bean lines from MSU and new varieties from other public and private breeding programs in North America. He has been involved in wide array of projects, working with seed industry on seed related problems, insect control, annual fungicide trials for white mold control, to bean desiccation trials, and resulting effects on canning quality to the use of bean powder as an ingredient in future food products. His greatest legacy to the bean industry has been his role in overseeing the dramatic changes in how beans are grown and harvested in Michigan. He has seen changes in acreage, seed types, improved productivity, and a major change to direct harvest and the subsequent modifications in planting, rolling, row widths, weed control, and crop desiccation prior to harvest. He has also overseen changes in market classes grown in Michigan going from a predominant navy bean state to a leader in black bean and organic bean production. Overseeing these changes entailed conducting numerous extension activities, field days, tours, meetings, combined with research directed toward best farming practices. In addition to working with the bean industry in the state, Greg has close ties with members of the canning industry and annually invites representatives of those industries to Michigan to participate in the canning evaluation of new bean lines from across the country. He has been successful in securing commodity block grants through the Michigan Department of Agriculture to ensure funding for research needs set annually by the industry. Through PRAB, he provides funding for research programs at MSU.

Greg serves on MSU Bean Commodity Committee, on student advisory committees and is actively involved with all canning evaluations conducted on campus. He has served as a member of the board of directors on the National Sclerotinia Initiative since its founding in 2002. He plays a vital role on this board ensuring that funding for bean research is equally and fairly represented among the programs supported by this initiative across the country. He serves as the industry representative on the Technical Management Advisory Committee - TMAC of the Legume Innovation Lab. His knowledge and experience of bean production and the role of applied research provides a valuable contribution and balance on this committee where diverse disciplines and represented. In addition to his research activities, Greg currently serves on the Isabella Bank Corporate Board of Directors and is Chairman of the Board of Directors of the Isabella Bank regional banks in Gratiot, Saginaw, and Midland Counties. Greg lives with his wife Joan in Gratiot County and owns farms adjacent to the original family farm. His service to the Michigan bean industry and the broader bean community has been outstanding and truly deserving of this award.

IRVIN E. WIDDERS

Dr. Irv Widders is the director of the USAID-funded Feed the Future Legume Innovation Lab managed at Michigan State University (MSU). Dr. Widders grew up on a small truck farm in Eastern Pennsylvania and received a Bachelor of Science in horticulture from Penn State in 1975. He continued his education at the University of California, Davis, where he received an MS in vegetable crops in 1977 and a PhD in plant physiology in 1982. He joined the Department of Horticulture at MSU as an assistant professor in 1982 and was promoted to professor in 1996.

Dr. Widders was appointed deputy director of the Bean/Cowpea CRSP (Collaborative Research Support Program) in 1998 and assumed the role of director in 2000. The Bean/Cowpea CRSP was renamed the Dry Grain Pulses CRSP in 2007 and the Feed the Future Legume Innovation Lab in 2013. Dr. Widders has continued to serve as director throughout this period to the present. In this role, he has continued MSU's legacy of engaging science and scientific leadership to address the seemingly insurmountable worldwide problems of hunger and poverty. He has overseen the management of dozens of long-term projects focused on advancing sustainable and secure agricultural developments through science research, technology, international collaboration, and capacity building programs in Sub-Saharan Africa, Central America, the Caribbean, and the United States. Under his leadership, smallholder farmers' bean and cowpea crop yields have improved significantly and sustainably due to environmentally friendly and affordable advances in pest management to reduce crop loss, improved seed varieties able to thrive in changing climates, improved soil management practices, and widespread education on agriculture and nutrition. As a result, household food security and income has increased in these regions, improving the health and lives of families and communities throughout the world.

Dr. Widders received the Globie Award for International Leadership and Service from MSU in 2012, the Ralph H. Smuckler Award for Advancing International Studies and Programs at MSU in 2015, and the LIL Lifelong Achievement Award for Excellence in Grain Legume Research Award in Zambia in 2016. He has been a BIC member since 2003 and during that time has engaged many of our BIC colleagues in international activities. As director of LIL, he has planned and organized many international meetings to bring together US and International partners to further scientific collaborations. Chief among these conferences is the upcoming Grain Legume Research Conference in Ouagadougou, Burkina Faso, in August 2017, the Joint Pan-African Grain Legume and World Cowpea Conference in Livingston, Zambia, in 2016, the Dry Grain Pulses CRSP Global Meeting in Kigali, Rwanda, in 2012, and in Quito in 2010. In addition to his role as director of the Feed the Future Legume Innovation Lab, Dr. Widders served as the Lead PI of USAID's associate award directed at the rapid technology dissemination and commercialization of disease-resistant bean varieties in Guatemala, Nicaragua, Honduras, and Haiti; the director of the Bean Health Research Program; coordinator of study abroad in Peru and at the EARTH University in Costa Rica, and as a consultant for a World Bank project in Uruguay. Other associate awards include MASFRIJOL; Technoserve; Mwe Gen Pwa, a $2M USAID bean seed relief project in Haiti's Hurricane Matthew affected areas; and a Gates Foundation Project on integrated pest management for smallholder cowpea farmers in West Africa; all of these awards have thrived under his management. Dr. Widders's leadership and work have advanced innovative, research-driven outreach, engagement, and economic development activities that have improved—and continue to improve— the quality of life for the world's most vulnerable peoples, and in recognition for this, Dr. Widders is truly deserving of the BIC Meritorious Service Award.

DEIDRÉ FOURIE

Dr. Deidré Fourie is a Plant Pathologist, with the Agriculture Research Council, Grains Crop Institute (ARC-GCI) in Potchefstroom, Republic of South Africa, working on pathology and breeding of dry bean. Dr. Fourie graduated with B.Sc. and M.Sc. degrees in Microbiology from the Potchefstroom University for Christian Higher Education in 1988 and 1992, respectively. She was hired in 1991 by ARC-GCI as a "Researcher" to work as a plant pathologist in support of the dry bean and sunflower breeding programs and has been there since. Deidre's Master's studies concerned bacteriology which skills she brought to her new job specialty for bacterial diseases of common bean and other crops. Although, Deidre has many accomplishments in sunflower, her major contributions in bean pathology and breeding are highlighted here. Her first efforts were to characterize the virulence diversity (races) in South Africa of the bacterial pathogens that cause halo blight and bacterial brown spot diseases of common bean. As she gained experience in the field as a plant pathologist in support of breeding programs, she also began working toward her Ph.D. at the University of Pretoria, which she received in 2003. By the time, she completed her Ph.D. studies on 'Bacterial diseases of dry beans in South Africa", she started to gain recognition worldwide as a pathology expert on bacterial bean diseases, and accordingly was promoted by ARC-GCI to Senior Scientist in 2002. Between 1999 and 2002, she attended seven international conferences and co-hosted another "The 3rd Bean Rust and 2nd Common Blight International Workshop" which contributed to her exposure and stature as a dry bean plant pathologist. She attended her first BIC Biennial meeting in Fargo in 2001 and has attended most meetings since. In 2009, she became the Director of the Dry Bean Breeding program at ARC-GCI.

In her current role, Dr. Fourie is responsible for all activities of the national dry bean breeding program in South Africa including crossing, selections, advanced regional and national trials, disease and quality evaluations, and cultivar release. Since 2009, she has released eight cultivars including five sugar (cranberry). two navy, and one dark red kidney Her plant pathology research contributed to the mapping and tagging with molecular markers of all the major R genes conditioning resistance to the halo blight pathogen and to the discovery of the new gene *Pse-6*, and QTL HB4.2 and HB5.1 which condition resistance to Race 6. Her research showed that QTLs SU91 and BC420 for CBB resistance did not limit yield in the absence of disease, and interacted in an epistatic manner such that BC420 did not affect resistance in the absence of SU91. Dr. Fourie contributed significantly to the initial development, and continued increase and distribution of the Andean Diversity Panel. This immense effort enables impactful research to be conducted by many others. She supports dry bean research across the continent of Africa with her involvement in committees, working groups, and as longtime member of the CIAT-led Pan African Bean Research Alliance and Southern African Bean Research Network. The "Common Bean Disease Workshop on Angular Leaf Spot and Root Rots" hosted by Dr. Fourie at Kruger Gate in 2015 was a fantastic success attended by 65 bean scientists from 14 countries. During that conference, Dr. Fourie was awarded the 'Certificate of Merit' from the USDA-ARS Chief Administrator whom recognized how critical her research efforts where to the success of the ARS-Feed-the-Future bean project. Her importance to the South African dry bean industry is evidenced by 30 popular press articles, 13 pamphlets, and three extension bulletins, in addition to her eight recent cultivar releases. Dr. Fourie has published 28 peer reviewed journal articles, one book chapter, and 15 technical reports, 44 presentations at international workshop/conferences and 38 regional/national presentations. This documented research and her approachable expertise are valuable resources for the global bean research community.

CLARE MUKANKUSI MUGISHA

Dr. Clare Mukankusi Mugisha, from Mbarara district, SW Uganda, completed a BSc degree in Agriculture in 1998 at Makerere University, Kampala, with her dissertation focusing on disease and insect pest resistance of dual-purpose cowpea. She completed an MSc in Agriculture, Makerere University in 2000 for which she conducted participatory research with women farmers in Kumi district, Bukedea sub county (E. Uganda) on the management of Rosette and Cercospora leaf spot of groundnut. She then worked as Government Agricultural Officer in Kabale district (SW Uganda) for a short period before joining CIAT as a Research Assistant to the regional plant pathologist, Dr. Robin Buruchara. At CIAT, she worked with small-scale bean seed producers in E. Uganda focusing on the recognition and management of major pests and diseases of common beans and producing good quality seed.

In 2003, she successfully qualified for an African Centre for Crop Improvement PhD scholarship to study Plant Breeding at the University of KwaZulu-Natal, Republic of South Africa. Her PhD focused on improving resistance to Fusarium root rot of common bean. While conducting her PhD research, she continued serving CIAT as a Research Associate (2005-2008) at CIAT-Uganda. On completion of her PhD in 2008, she was awarded a postdoctoral fellowship and served as network breeder for PABRA until 2013, when she was promoted to the full scientist position of "Bean Breeder" in the East and Central Africa Bean Research network (ECABREN).

Clare's work initially centered on projects aimed at understanding and improving resistance to key bean diseases but has since progressed to include projects on bio-fortification for iron and zinc, abiotic stress, and consumer traits such as cooking time. Clare offers oversight on research conducted in these areas and develops breeding lines targeting seven market classes of beans. Because of her outstanding scientific expertise and excellent mentor qualities, Clare is sought out by many bean scientists through different projects, consortiums and communities of practice. Some of these include the African Bean Consortium (ABC) of the Kirkhouse Trust foundation, Demand Led Breeding (DLB) project of the Alliance for Agricultural R&D for Food Security (consisting of the Syngenta Foundation for Sustainable Agriculture, the Crawford Fund and the Australian Centre for International Agricultural Research-ACIAR), Tropical Legume Project (BMGF), HarvestPlus, CGIAR program on Climate Change, Agriculture and Food security (CCAFS), USDA's National Institute of Food and Agriculture, Biotechnology and Biological Sciences Research Council(BBSRC) projects on bean root rots, The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), and Alliance for a Green Revolution in Africa (AGRA) funded plant breeding capacity building program of Makerere University.

Clare maintains and distributes breeding lines developed by herself and the CIAT bean programs in Colombia and Malawi and germplasm from NARS and other partners. Clare is very keen on capacity building and has so far directly supervised three PhD students and 12 MSc students that completed successfully and advised many others**.** She has trained five interns at Diploma, BSc and MSc level in different areas of interest. She also helps train the NARs partners in disease phenotyping and breeding techniques. She acts as a direct supervisor of four research associates and six technical staff. In addition, she is the acting Country coordinator of the CIAT Uganda office comprised of 30 staff members. She has co-authored over 20 peer-reviewed publications and book chapters. In summary, Dr. Clare Mukankusi Mugisha has made significant contributions in her short career to the improvement of *Phaseolus* beans in Eastern Africa and has rapidly become an important collaborator and mentor to many African and overseas collaborators and students.

RIAN LEE

Mr. Rian Lee has been an instrumental member of the bean genetics and molecular genetics research group at North Dakota State University for the past 18 years since joining Dr. Phillip McClean's group at NDSU in 1999. Rian graduated from North Dakota State University with a BS in Biotechnology in 1993. He has recently taken advanced degree courses in the Genomics and Bioinformatics program at NDSU. After receiving his BS degree, Rian worked as a research molecular genetics technician from 1993 to 1999 with Biogenetic Services Inc. and Mycogen.

After joining Dr. McClean's group, he quickly became a leading mentor to undergraduate students, and valued colleague to other graduate students, research technicians, and postdoctoral scientists at NDSU and elsewhere. He supported not only bean researchers, but researchers working on all crops at NDSU. He provided valuable technical skills and leadership for the BeanCAP project and Phaseolus genome sequence project. This included providing the expertise necessary to develop the two-enzyme genotyping-by-sequencing methodology widely used in the bean research community. The Middle American Diversity panel GBS libraries were a critical components of the GWAS output from the BeanCAP project. Rian provided all of the DNA and RNA source materials used for the genome sequencing project. Rian has contributed to numerous research projects over the years, and has worked with bean breeders and geneticists, molecular geneticists, and genomicists gaining experience and contributing to a range of projects that has helped in basic as well as applied research in common bean.

A major contribution was the discovery of the *Crg* locus for *Ur-3*-mediated rust resistance along with Venu (Kal) Kalavacharla, and Phil McClean. Rian has also technically led projects on white mold and multiple disease resistance loci. Recently, Rian has provided bioinformatics support for common bean by developing comprehensive data resources that detail: 1) the suite of gene models in common bean; 2) the Pfam families for all gene models; 3) the Arabidopsis orthologs for the bean gene models; and 4) the Glycine orthologs for the bean gene models. Rian was the first to assemble bean EST sequences into CDS sequences that formed the basis for gene calling during the reference genome sequencing project. Those assembles were also found in the first bean databases developed by Phytozome and the Legume Information System. Because of these significant research contributions, Rian has been a co-author on 20 manuscripts not only from Dr. McClean's group, but other research groups from around the world. Rian is truly a very skilled research with a patient personality that allows him to take the time to carefully work with others while generating valuable scientific information that has supported bean research worldwide.

EVAN M. WRIGHT

Mr. Evan Wright is a research technician working in the dry bean breeding and genetics program at Michigan State University. He grew up on a cash crop farm near Muncie, Indiana where he acquired a strong agricultural background. As an undergraduate student at Central Michigan University, Evan was actively involved in biological research. Using transmission electron microscopy, Evan worked with Dr. Daniel Wujek on freshwater algal taxonomy. His work with the Wujek lab resulted in four publications, including a paper describing a species new to science, *Mallomonas weei*. Evan graduated from CMU with a bachelor's of science degree in Plant Biology in 2004 and briefly worked on resistance to soybean cyst nematode with Dr. Brian Diers at the University of Illinois before returning to the state of Michigan to continue his education. At Michigan State University, Evan joined Dr. Jim Kelly's dry bean breeding & genetics lab in 2005, where he conducted research on quality traits of black beans. By developing a population of black beans and screening it with molecular markers, he was able to map several QTL governing yield and color retention. While working on his degree, Evan gained valuable experience in all aspects of dry bean breeding, including crossing, planting, selecting, and harvesting. After earning a master's of science degree in Crop and Soil Sciences in 2008, Evan continued to work in the dry bean-breeding program as a part-time technician. When the previous technician retired, Evan began his current position as MSU's dry bean breeding program's full-time technician, although he also performs all technician duties for the USDA's bean breeding program as their *de facto* technician.

Evan exemplifies all the positive attributes of a dedicated technician ensuring that all aspects of the breeding program are running smoothly by anticipating and rectifying potential problems before they arise. He works amiably with members of the university staff, colleagues, and industry representatives, and he actively assists and advises students with their research needs. During field season, Evan's efforts in preparing seed, coordinating trials, planting fields, controlling weeds, taking notes, selecting, and harvesting are invaluable. He is extremely familiar with the crop, which allows him to make selections on advanced breeding lines in Michigan and across the country in addition to scouting seed fields for off-types. He provides invaluable advice on parental selections, advancing lines and using his computer skills to streamline and classify record keeping. In addition to managing field operations for both programs, he also assists both programs with canning quality evaluation, an extremely time- and labor-intensive endeavor that involves the cleaning, weighing, canning, and scoring of hundreds of genotypes. Furthermore, Evan makes crosses for all market classes, set up field books and nurseries, performs statistical analysis for all field and canning data, maintains and transports equipment across the state, and streamlines all aspects of the program when possible.

Evan has been involved in the development of many dry bean varieties coming from the MSU program including Bellagio, Rosetta, Eldorado, Snowdon, Powderhorn, Alpena, Zenith, Desert Song, Gypsy Rose, and Samurai varieties. He has received a number of awards including the G.O. Mott Meritorious Graduate Student Award, Crop Science Society of America, in 2007, the Jonathon Baldwin Turner Fellowship-University of Illinois in 2004 and the Academic Excellence Award-College of Science and Technology Residential College, from Central Michigan University in 2003. He is a member of the Bean Improvement Cooperative. Evan has published a number of refereed journal articles from both his BS and MS research, numerous variety registrations, and additional publications with graduate students he assisted as a technician. He is most deserving of the BIC technical merit award.

BANQUET SPEAKER

Larry Sprague
Bean Marketer
Kelley Bean Company
Durand, Michigan

"The History of Michigan Dry Beans from a Personal Perspective"

Larry Sprague has lived his life in Durand, Michigan, a rural community about thirty-five miles northeast of East Lansing. Larry received his Bachelor of Science and Master of Arts Degrees from Michigan State University. Larry began his career teaching Vocational Agriculture for three years before beginning his profession in the dry edible bean business as a buyer and seller of dry beans and other pulses. Larry originally worked for the Michigan Bean company and later with Wickes Agriculture, Mueller Bean, Northern States Bean and Agri Sales. He is currently employed by the Kelley Bean Company, with corporate headquarter in Scottsbluff, NE, as Manager of Export. Kelley a ninety year old company and is the largest originator of dry beans in the US with over twenty-two locations in the major dry bean production regions.

Larry has been active in most areas of the pulse industry having served on the boards of the Michigan Crop Improvement Association, The Michigan Bean Commission, The Michigan Bean Shippers, and the US Dry Bean Council. He remains active in his community as chair of the Vernon Township Planning Commission, Church Board member and member of Gideon's International.

Larry has been married to his wife, Janet for forty-eight years with three children, Christy, Holly, and Matthew, eight grandchildren, and one great grandson. He and Matt currently farm approximately 900 acres of corn, soybeans, wheat, and black beans in the Durand area.

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PROGRAM AGENDA

Social Hour & Banquet
Presentation of Graduate Student Awards
Presentation of Frazier-Zaumeyer Distinguished Lectureship Award
Presentation of the BIC Meritorious Service and Distinguished Achievement Awards