

## 2016 CROP PEST MANAGEMENT SHORT COURSE PROGRAM

# Biographical Sketch

### **Betsy Buffington**

Betsy Buffington is an Extension Program Specialist in the Pesticide Safety Education Program at Iowa State University. She has a M.S. degree in Entomology from Colorado State University. Her responsibilities at Iowa State University include continuing instruction course recertification training in the fumigation, seed treatment, and certified handlers categories. Betsy is the program lead for the Worker Protection Standard and currently serves on the Pesticide Educational Resources Collaborative (PERC) Advisory board. She lives in Gilbert, Iowa with her husband Tim and their two children, Anne and Zak.

### **Thomas R. Butts**

Thomas (Tommy) R. Butts is a Ph.D. student at the University of Nebraska-Lincoln in the Department of Agronomy and Horticulture. He studies weed science and pesticide application technologies (PAT) under the instruction of Dr. Greg R. Kruger at the PAT Laboratory in North Platte, NE. Tommy received his B.S. in Agricultural Business with a minor in Crop and Soil Science from the University of Wisconsin-Platteville in 2012, and completed his M.S. in Agronomy-Weed Science at the University of Wisconsin-Madison in 2015. He is an active member in the North Central Weed Science Society (NCWSS), Weed Science Society of America (WSSA), American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA). Tommy is currently researching the influence of pulse-width modulation spray application systems on droplet spectrum, spray application parameters, and herbicide efficacy.

### **David Clay**

Dr. David Clay is Professor of Soil Science and Fellow of the American Society of Agronomy. His research is focused on on-farm research, soil health, precision farming, land use changes, water quality, and the development of Northern Great Plains Climate Smart agricultural systems. Dr. Clay has published over 240 peer reviewed papers and written or edited 13 books. Dr. Clay has received numerous awards including: 1) the editor of three manuals that were highlighted for excellence by the American Society of Agronomy, 2) the 2012 Weed Science Paper of the Year; 3) The 2004 SDSU F.O. Butler Award of Excellence in Research; 4) the 2004 and 2014 SDSU Ag Bio College Excellence in Research; 5) the 2004 SDSU Ag Bio College Award for Excellence in Teamwork; 6) the 2013 and 2016 American Society of Agronomy Precision Agricultural Systems Impact award; and 7) the 2009 PrecisionAG Award for excellence.

### **Anthony Cortilet**

Anthony Cortilet is a Weed Scientist with the Minnesota Department of Agriculture and coordinates Minnesota's Noxious and Invasive Weed Program. He has over 25 years of professional experience working with invasive plant species and ecological preservation. He holds a Bachelor's Degree in Fisheries and Wildlife Biology and a Master's Degree in Agronomy – Weed Science, both from Iowa State University.

### **Richard Ferguson**

Richard Ferguson is a Professor of Soil Science, Extension Soils Specialist, and Associate Head in the Department of Agronomy and Horticulture of the University of Nebraska-Lincoln. Dr. Ferguson's BS is from Friends University, and MS and PhD degrees are from Kansas State University. His research focuses on site-specific nutrient management and improving nitrogen use efficiency of irrigated cropping systems. He teaches undergraduate and graduate courses on site-specific crop management and spatial variability of soil. He coordinates Extension educational programs in central Nebraska focused on improving nitrogen use efficiency of irrigated corn and minimizing nitrate loss to groundwater. Dr. Ferguson has authored over 80 refereed journal articles, book chapters and proceedings articles, as well as over 110 Extension publications. Dr. Ferguson is a Fellow of the American Society of Agronomy and Soil Science Society of America, and associate editor of the Journal of Precision Agriculture.

### **David Franzen**

BS, MS, and Ph.D. from University of Illinois, Urbana, IL. 18 years as agronomist and manager in the retail fertilizer business in East Central Illinois. Completed Ph.D. in 1993, with thesis addressing field variability of P, K, and soil pH in two Illinois fields. Results are published and publications are listed on this page. Joined NDSU faculty in June, 1994.

Dr. Franzen provides educational programs on soil and soil fertility topics to extension agents and specialists, industry professionals, farm producers and the public. Material is presented using meetings, field tours, written material, radio, TV, video and internet resources. Perform applied soils research projects as are relevant to North Dakota producers.

### **Tom Gile**

A 2006 graduate of StCloud State University, Tom grew up on a small family dairy farm in SE MN. Professionally Tom has experience as an engineering technician with the Blue Earth SWCD, spent 5 years as the Regulatory Affairs Coordinator with the Coon Creek Watershed District, 2 years as a Board Conservationist with BWSR and has been the BWSR Buffers and Soil Erosion Coordinator since the beginning of 2016.

### **Jeffrey Gunsolus**

Jeffrey L. Gunsolus is a native of Wisconsin. He received a B.S. degree in animal ecology in 1976 and a M.S. degree in agronomy in 1982 from Iowa State University. In 1986 he received the Ph.D. degree in crop science from North Carolina State University. Dr. Gunsolus worked for four years after his B.S. degree for the Iowa State University Extension Service as an Extension associate. His duties were primarily focused in the weed

science area. After he obtained his Ph.D., he was an Assistant Professor at the University of Minnesota conducting extension and research activities in the area of corn and soybean weed management. Currently Dr. Gunsolus is a Professor at the University of Minnesota.

Dr. Gunsolus has an active extension and research program in Minnesota that is focused on helping growers' diversify their weed management programs. He was the first recipient of the NCWSS Distinguished Achievement Award in Education in 1990, in 2008 became a fellow of the NCWSS. In 2009, he received the University of Minnesota Extension's Dean's Award for Distinguished Outstanding Leadership and the College of Food, Agriculture and Natural Resource Sciences, Distinguished Extension Award in 2013. He has authored a popular North Central Regional (NCR) Publication and an educational CD-ROM on "Herbicide Mode of Action and Injury Symptoms" and in the early 1990's published the NCR publication "Herbicide Resistant Weeds." Dr. Gunsolus has a strong collaborative research program and is currently focusing his research on risk management perspectives of integrated weed management.

### **Aaron Hager**

Aaron Hager is an associate professor of extension weed science in the Department of Crop Sciences at the University of Illinois. He attended Southern Illinois University, Carbondale and received a B.S. in Plant and Soil Science in 1991. He then went to Michigan State University and received his M.S. in weed science in May, 1993. Later that month, he joined the University of Illinois as a weed science extension specialist. In 2001, he completed his Ph.D. in weed science and joined the Department of Crop Sciences faculty ranks in 2002. As an associate professor of weed science at the University of Illinois, Dr. Hager is responsible for weed biology and management research in corn and soybean production systems. His research focuses on examining the biology and management of weed species that are common in Illinois agronomic crops.

### **Adam Hislop**

Adam Hislop is a 26-year old Operations Manager of field crops for a family farming operation, Hislop Farms, near Mapleton, MN. The farm consists of approximately 3,000 acres which is composed of diversified field crops and a custom swine feeding operation. Adam also holds a Minnesota commercial pesticide applicator license.

### **Jan Johnson**

Jan Johnson founded Millennium Research 20 years ago. It is the only independent full-service market research firm in the United States focusing specifically on agriculture. As one of the most insightful analysts in the business, Millennium has served leaders in agricultural machinery, seed, feed, chemical, fertilizer, irrigation and animal health products. It has completed some of the most extensive research into the use of technology in agriculture. It is Millennium's goal to help the entire agricultural system by helping farmers share their needs with manufacturers, and helping manufacturers understand and meet the needs of farmers, in order to create the most cost-effective, streamlined and productive agriculture possible that rewards all participants for their efforts.

### **Zach Johnson**

Zach Johnson is a 5th generation farmer from Lowry, MN. He and his father currently operate 2,500 acres of corn and soybeans. He and his wife Becky have a 7-year old son, two daughters (ages 4 and 1), and they're currently fostering their 15-year old niece. He started his YouTube channel, "MN Millennial Farmer" last spring as a way of connecting non-farming consumers to what really happens on the farm. It currently has more than 3,000 subscribers and is continuing to grow. He hopes to continue with the growth of the channel while also growing the family farming business in the future.

### **Daniel Kaiser**

Daniel Kaiser grew up on a grain and livestock farm in Northeast Iowa. He attended Iowa State University where he received his M.D. and Ph.D. degree in soil fertility, researching phosphorus and potassium placement for corn and soybean and phosphorus management using poultry litter. Currently he is an Associate Professor and Extension Specialist in the Department of Soil, Water, and Climate at the University of Minnesota where he has a broad research program related to nutrient management for commodity crops in the state of Minnesota. His current research focuses on the use of soil testing and plant analysis for corn, soybean, and spring wheat, sulfur management in crop rotations, starter fertilizer use in corn, and the use and development of GIS based technologies for managing crop nutrients.

### **Robert Koch**

Dr. Robert (Bob) Koch is an Assistant Professor and Extension Entomologist at the University of Minnesota. His research and extension responsibilities focus on applied ecology and integrated pest management of insects associated with soybean. Currently, his research program focuses on IPM for the soybean aphid and brown marmorated stink bug. Dr. Koch received a Ph.D. in entomology from the University of Minnesota and Bachelor's degree in biology from St. John's University. Prior to this position at the University of Minnesota, he worked for six years with the Minnesota Department of Agriculture.

### **James Kurle**

Jim Kurle is an Associate Professor in the Department of Plant Pathology at the University of Minnesota. He has a BA in Biology from Dartmouth College, a BS in Agronomy and PhD in Plant Pathology from the University of Minnesota. He conducted postdoctoral research into management of soybean diseases using cultural practices and varietal resistance at the University of Wisconsin. Before becoming involved in plant pathology he conducted research into management of soybeans, corn, and small grains. Currently his research is focused on management and control of diseases of soybean, integrating chemical controls, cultural practices, and plant disease resistance. This research has identified new sources of resistance to soybean diseases found in Minnesota and disease management strategies to slow the breakdown of varietal resistance to plant disease. His most recently published research investigated the increase in the number and complexity of *Phytophthora sojae* pathotypes associated with the planting of resistant soybean varieties.

**Joe Lauer**

Joe grew up in north central Minnesota and holds degrees from St. John's University and the University of Minnesota. From 1985 to 1994, he was faculty extension agronomist at the University of Wyoming. In 1994, Joe joined the Agronomy faculty at the University of Wisconsin where he is responsible for conducting applied research and delivering Extension educational programming for Wisconsin farmers, advisors and industry.

**Dean Lemke**

Dean Lemke is the Agribusiness Association of Iowa's Nutrient Management and Environmental Stewardship Director. Lemke, the lead author of the agricultural nonpoint source section of the Iowa Nutrient Reduction Strategy, brings over forty years of experience in developing and implementing research initiatives, new technologies, policies and assistance programs to advance environmental stewardship of production agriculture.

Lemke, an Iowa State University of Agricultural Engineering graduate and licensed engineer, retired from the Iowa Department of Agriculture and Land Stewardship. In addition to his work on the Iowa Nutrient Reduction Strategy, Lemke has served as the co-chair for the national coordinating committee of the Mississippi River/Gulf of Mexico Watershed Nutrients Task Force and chair of the five-state Upper Mississippi River States Collaboration Sub Basin Team that worked to address the hypoxia zone in the Gulf of Mexico.

Lemke is the recipient of many recognitions which include the Iowa Corn Growers Association 2013 Friend of Iowa Corn Award, the Iowa State University College of Agriculture and Life Sciences Impact Award for Extraordinary Partnership, the U.S. Farm Foundation Thirty Year Policy Challenge Natural Resources Policy Award and the Iowa, Kansas, Missouri, and Nebraska Region of the American Society of Agricultural and Biological Engineers 2006 Engineer of the Year.

**Aaron Lorenz**

Dr. Aaron Lorenz is an Assistant Professor of Soybean Breeding and Genetics at the University of Minnesota. His research focuses on the application of genomic selection and high-throughput phenotyping to variety development. Publications of Dr. Lorenz have explored facets of optimizing genomic selection for plant breeding. In addition to his genomic selection work, Aaron recently led a wide scale association study on soybean protein and oil using data from the entire USDA Soybean Germplasm Collection which provided information on the frequency and distribution of alleles affecting protein and oil within the collection. Dr. Lorenz received a BS from the University of Minnesota in 2002, an MS in Plant Breeding from Iowa State in 2005, and a PhD in Plant Breeding and Plant Genetics from the University of Wisconsin in 2008. Following his PhD, he was a Postdoctoral Research Associate at Cornell University from 2009-10 and an Assistant Professor at the University of Nebraska from 2010 - 2015. He joined the Faculty of the University of Minnesota in 2015.

**Dean Malvick**

Dr. Dean Malvick is an Extension Specialist and Professor of Plant Pathology at the University of Minnesota in St. Paul. His responsibilities are divided between developing and delivering extension education programs,

and conducting problem-solving and discovery research focused on the biology and management of soybean and corn diseases. Previously, he was a faculty member with similar responsibilities at the University of Illinois in Urbana, and he worked for several years as a research pathologist for a seed company. Dr. Malvick received an MS degree in Botany and Plant Pathology from Oregon State University, and a PhD in Plant Pathology from the University of Minnesota.

### **Donna Moenning**

Donna Moenning's career in marketing and communications has always been rooted in food and farming. She joined The Center for Food Integrity in 2013 after nearly nine years with Midwest Dairy Association serving as their team lead for Integrated Communications. For nearly three decades, Donna has been sharing her skills in strategic planning, issues management, project management, video production and communication training. She believes all effective communication begins with understanding your audience, which is why she values CFI's annual consumer trust research.

Donna is an empowering speaker and trainer, having presented to hundreds of producers, university experts, industry representatives, agricultural youth, food companies and agriculture organizations through the years and across the United States. Donna is a graduate of South Dakota State University in agricultural journalism where she was named an outstanding alumnus in Journalism in 1995. She lives on a crop and livestock farm with her husband and three children in Southeast Minnesota. Donna serves on the Minnesota FFA Foundation Board.

### **Seth Naeve**

Dr. Seth Naeve is a Soybean Agronomist with the University of Minnesota and is an Associate Professor in the Department of Agronomy and Plant Genetics.

Dr. Naeve's research program focuses on development of novel strategies for the efficient production of high quality soybean. His research effort is split between analyzing genetic, environmental, and cultural effects on soybean seed quality (oil, protein, fatty acid, amino acid, and carbohydrate composition) and researching management strategies to maximize production efficiencies.

Seth was raised on a corn and soybean farm in Iowa, and received his Bachelor's degree in Biology and PhD in Agronomy (Crop Production and Physiology) from Iowa State University.

### **Ken Ostlie**

Dr. Ken Ostlie is a Professor and Extension Entomologist in the Department of Entomology at the University of Minnesota. Over the last 32 years, Ken has focused his extension and research efforts on the ecology and management of corn and soybean insects. He started out as an innocent farm boy on the prairies of western Minnesota near Montevideo. Whatever the reason, his path led him to a B.A. in biology and mathematics at Luther College in Decorah, IA (1976), a M.S. in ecology at Utah State in Logan, UT (1980) where finally the dark side of entomology lured him to Iowa State where he completed a Ph.D. in 1984. Crop insects present dynamic management challenges, even to new technologies like Bt corn. Ken meets that challenge with

creative, on-farm research, and crafting practical management solutions with farmers, their agricultural advisors, and their suppliers in mind. His achievements were recently recognized when Minnesota Extension named him as their Outstanding Extension Faculty member in 2011 while receiving a Team Award for the Institute for Ag Professionals in 2014.

### **Art Schaafsma**

Professor, Field Crop Protection, Dept. Plant Agr. OAC., Past Director, Ridgetown Campus, University of Guelph, Fellow of **Canadian Society of Agronomy**. BSc (Agr), MSc, PhD U of Guelph - Crop Protection, 4 years in Crop Protection Industry, Manitoba and Alberta; 30 year's extension, research, and teaching in field crop protection and agronomy, 10 year's farmer. Graduate student advisor (co) various aspects of applied field crop protection: past 10 MSc, 6 PhD; current 2 MSc and 2 PhD students. Author, co-author of over 75 peer reviewed scientific articles. Invited speaker: numerous national, international scientific meetings. Consultant: FAO/UN, **on mycotoxins**; Research Interests: integrated farm to fork strategies to manage mycotoxins in grains: agronomics, plant breeding, forecasting, grain harvest, storage, handling and grading. Integrated management of emerging and invasive field crop insect pests and related issues (currently Neonics and Bees). Stewardship and deployment of transgenic crop pest resistance. Current Chair of Canadian Corn Pest Coalition <http://www.cornpest.ca>. Other interests: Agricultural extension/assistance in developing countries.

### **Eric Snodgrass**

Eric Snodgrass is the Director of Undergraduate Studies for the Department of Atmospheric Sciences at the University of Illinois at Urbana-Champaign. Each year, he guides over 1500 students through the wild side of weather in ATMS 120: Severe and Hazardous Weather. He teaches advanced courses on General Physical Meteorology (ATMS 201), Meteorological Instrumentation (ATMS 315), Economics of Weather (ATMS 491) and supervises numerous Capstone Research projects. Snodgrass also teaches ENSU 310: Renewable and Alternative Energy for the Environmental Sustainability Program. He advises all undergraduate majors in atmospheric science and supervises graduate teaching assistants and master's students. He serves on numerous committees and boards on campus including the Provost's Teaching Advancement Board (Chair), Student Sustainability Committee and the Provost Task Force on Improving Large Enrollment Courses. Snodgrass' research initiatives focus on K-12 science education as well as weather forecasting applications in financial markets. He is the co-founder of Global Weather and Climate Logistics, LLC. which is a private company that provides logistical guidance and solutions to weather sensitive financial institutions. Recently, his company merged with Agribile Inc., a precision farm management and predictive analytics company, where he is also co-founder and senior atmospheric scientist. He has recently been awarded the LAS Teaching Excellence award and the Campus Teaching Excellence Award. Also, his online version of ATMS 120 was awarded the 2012 "Best Online Course" from the University Professional Continuing Education Association (a national organization). Currently, his research efforts focus on weather risk involving land-falling tropical cyclones and global agricultural yield projections.

### **Patrick Tranel**

Patrick Tranel obtained a B.S. in Agronomy from Iowa State University, an M.S. in Agronomy from Washington State University, and a Ph.D. in Botany from Michigan State University. Dr. Tranel has been a faculty member in the Department of Crop Sciences at the University of Illinois since 1997. His research program uses molecular and genomic tools to address weed science issues, and has contributed much to our understanding of the evolution and underlying mechanisms of resistances to numerous herbicides in numerous weed species. Dr. Tranel also collaborates extensively with more applied weed scientists at the University of Illinois and elsewhere, fostering a research program that is timely and relevant to weed management practitioners.

### **Jeffrey Vetsch**

Jeff Vetsch manages soil science research at the University of Minnesota, Southern Research and Outreach Center in Waseca. He conducts applied research in the areas of nutrient management, water quality and cropping systems, primarily in corn and soybean. His research emphasis is on nitrogen management in corn. Vetsch earned his BS and MS degrees from the University of Minnesota. He is a Certified Professional Soil Scientist.

### **M. Scott Wells**

Dr. Scott Wells is an Assistant Professor at the University of Minnesota in Extension Forage Cropping Systems. Dr. Wells received his Ph.D. from North Carolina. Dr. Wells directs applied and field ordinated research program that provides research-based technologies addressing the sustainable intensification of agriculture in MN. Such technologies include cover crop interseeding into corn, soybean, sugar beet cropping systems, developing agronomic management of new winter oilseed cash cover crop systems, evaluating optimal management strategies for alfalfa production systems, and assessing the fate of nitrogen in annual and perennial cropping systems. He also supports the University of Minnesota alfalfa and corn silage variety-testing programs. In conjunction with his research program efforts, he also provides statewide educational leadership for both the University of Minnesota Forage Extension Team and the Cover Crop Team.

### **Bruce Wilson**

Bruce Wilson is a Professor in the Department of Bioproducts and Biosystems Engineering at the University of Minnesota. He has extensive modeling and experimental background in erosion mechanics and in hydrologic/water quality and has been the instructor for numerous undergraduate and graduate courses. He is a Fellow of the American Society of Agricultural and Biological Engineers.

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