

# Profiles



ANTIGO SILT LOAM

## Message from the Department Chair



Recently, a brand new door was installed for the main entrance of King Hall. The old door had rotted away at its base caused by decades of moisture and salt, and possibly a little shortage in the occasional paintjob. The new door - I am given it all away here - is quite beautiful and ready for another century of letting out some of the best soil science into the world. Anyone who enters the King Hall doors is reminded of our base – a large limestone plaque above the entrance that says: Horticulture and Agricultural Physics.

The founder F.H. King brought the principles and practices of physics into the study of soil. With that, he laid the foundation for the soil physics subdiscipline in our department. Some decades later, the department was home to the strongest soil physics research in the country, if not in the world. Experimentalists and theoreticians pushed the boundaries of the physical understanding of the soil, as well as the training of generations of soil physicists. Many of them becoming outstanding scientists, like Dr. Mary Beth Kirkham who was the first female PhD in soil physics. The college recognized her excellence by awarding Dr. Kirkham the CALS Distinguished Alumni Award. As a department, we could not be more proud.

Over the past years, we have had several retirements in our soil physics faculty, and at the end of summer we started the recruitment for a new soil physicist. We identified the need for a scientist who would complement the research of Dr. Francisco Arriaga and who can teach our primary soil physics courses. A committee, chaired by Dr. Matt Ruark, shifted through a large pool of applicants (which seem to indicate that we continue to be a highly attractive department) and recently finished interviewing several candidates. Each candidate presents a research and a teaching seminar and that further sharpens our thinking on the type of soil physicist that we wish to hire. If all goes well, we hope to make the final selection by December.

I sense all of us in the department realize that we are standing on the shoulders of soil scientists who have made major contributions to the field. That realization may be inspirational and at times soothing, there is, however, a much deeper aspiration to engage in the questions of the day and develop the best science for the most pressing issues. We often tend to work in parallel approaches whereby theoretical developments feed our practices and where practices feed the need for sound understanding. This interaction has proven to be highly successful in soil physics. We are greatly looking forward to the new hire, and bringing soil physics research to the forefront of our research and teaching activities.

That is some news from the department. There are lots of other things going on, and this newsletter highlights a bit more. Some of what we do cannot be accomplished without your support to the department, and we are most grateful for all of it. As always, we like to hear from you and when you are in Madison please let us know. The door is always open – and it is quite beautiful.

**Alfred Hartemink**

## Student Profile: Qiyu Zhou

In China you cannot walk on the grass. “Keep off the grass” signs are everywhere, and as a child, Qiyu became interested in this forbidden fruit. It was therefore easy to select her major as an undergraduate student at Sichuan Agricultural University. She would study: turfgrass management. An internship at Desert Mountain Golf Course in Arizona only heightened her interest in turfgrass and soil, and exposed her to issues of soil salinity and sodicity with irrigation water. As a M.S. candidate in Soil Science, Qiyu now works with Professors Doug Soldat and William Bleam to address the issues in irrigation water she first encountered out West. She is currently working to develop a new sodicity index to estimate the sodium hazard of irrigation water. She hopes this work will provide tools for easier and more effective management of irrigation water, not only to ensure high quality turf, but also for all plants.



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## CALS Distinguished Alumni Award: M.B. Kirkham

UW-Madison and Department of Soil Science Alumni, Mary Beth Kirkham recently received the honor of CALS 2017 Distinguished Alumni Award for her outstanding achievements and contributions in her field throughout her career. Mary Beth began her academic pursuit at UW-Madison by completing her MS and PhD degrees in botany with a minor in soil science. Her completion of that minor made her the first female to graduate with a degree in soil science, an honor that has led the way for many other young female scholars since.

Her professional career spans an illustrious five decades. She began as a postdoctoral fellow at the Institute for Environmental Studies (renamed, Nelson Institute in 2002). She later took a position with the EPA, then on to University of Massachusetts and Oklahoma State University to pursue a career in academia. Today, one can find her at Kansas State University, where she has been on faculty since 1980.

Mary Beth's research in soil-plant-water relationships and the connection between soil and climate change, can be found in numerous publications.



Photo left (l-r):  
Emeritus Professor Dennis Keeney, Honoree Mary Beth Kirkham, Emeritus Dean Leo Walsh, Professor Alfred Hartemink

## Welcome

The department has numerous new graduate students and staff members to welcome:

- Anna Teeter** (MS, Laboski)
- Shabda Gajbhiye** (MS, Hickey)
- Sheamus Johnson** (MS, Ventura)
- Carrie Lierl** (MS, Ventura)
- Kyle Pepp** (MS, Ventura)
- Shivangi Vayla** (MS, Hickey)
- Michael Bekken** (PhD, Soldat)
- Nayela Zeba** (PhD, Whitman)

- Laura Adams**, Research Intern, Arriaga Lab
- Jessie Dowding**, Scientist, Long Lab
- Aaron Lomax**, Associate Researcher, Pedersen Lab
- Yichao Rui**, Assistant Scientist, Ruark Lab
- Rogerio Soratto**, Visiting Scholar, Ruark Lab

## Staff Profile: Keith Schiller



Keith enjoyed growing up on Long Island NY, in part because of the beaches (which he misses very much) and because of the wayward way kids spent their days - often kicked out of the house and told to come back for meals. Going off to college put some amount of pressure on him to settle down and get a useful education. Instead he decided to take classes that he liked. After getting BAs in History, English, Philosophy and a BS in Soil Science he decided to monkey

around in the trees for 6 or 7 years (tree trimming) before coming back down to the ground. Getting a job that would not seriously injure him seemed like a good idea.

For the last 16 years he has been tinkering with computers, printers, network equipment and gadgets attached to computers. It is truly a wonder that people think he should be knowledgeable about all things attached to computers, and that he has not seriously broken any of them. Yet. He works half time in this job because doing so full time drives him a bit nuts. Computer troubleshooting can be fun for 4 or 5 hours a day but after that he is ready to go do something else.

## In Memoriam

**Wayne R. Kussow** (BS, 1961; MS 1963; PhD, 1966) - Professor Emeritus Wayne R. Kussow passed away on October 7, at the age of 78. Professor Kussow spent the first 18 years of his career involved in international agriculture development and administration within the College of Agricultural and Life Sciences at UW-Madison. He was instrumental in the creation of MS degrees at the Federal University in Porto Alegre, Brazil as well as the revitalization of Brazil's agricultural research system, serving as rice research team leader at the National Rice and Bean Center in Goiania. Beginning in 1984, Professor Kussow joined UW-Madison's Department of Soil Science where he served as coordinator of the Turf and Grounds Management Program through his research and instruction until his retirement in 2005.

**Clarence J. Milfred** (BS, 1960; MS, 1962; PhD, 1966) - UW-Stevens Point Professor Emeritus Clarence J. "Curly" Milfred passed away on April 15, at the age of 87. Following his honorable service in the U.S. Army artillery division, Professor Milfred attended UW-Madison where he earned his BS, MS, and PhD degrees. He worked as a soil scientist for the Wisconsin Geological and Natural History Survey for several years, and in 1970 began teaching at UW-Stevens Point in the Department of Geography, and later in the College of Natural Resources until his retirement in 1998.

## Recent Graduates

### GRADUATE DEGREES

**Bandura, Christopher - MS, 2017** Soil Science  
Agronomic and environmental evaluation of nitrogen rate and timing for midwestern corn production. (RA, Laboski)

# Department News

Our undergraduate and graduate students performed very well at the recent ASA/CSA/SSSA annual meeting in Tampa, FL. Awards received include the following:

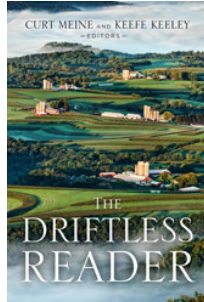
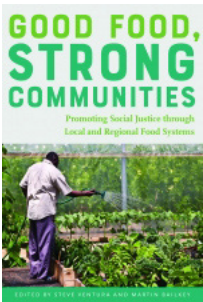
2nd place: Urban Soils Poster Competition; and 3rd place: Urban Soils Oral Competition- **Shannon Plunkett (RA with Doug Soldat)**

2nd place: Student Poster Competition - **Kalyn Diederich (RA with Matt Ruark)**

1st place: Urban Soils Poster - **Kristin McAdow (Doug Soldat Lab)**

2nd place: Oral Student Competition of the Soil & Water Mgmt & Conservation Division - **Melanie Stock (RA with Francisco Arriaga)**

Congratulations are in order for **Steve Ventura** who, with Martin Bailkey, recently completed the editing of the book, *Good Food Strong Communities*. The publication is the culmination of five years of collaboration between a research team comprised of UW-Madison personnel (through a USDA grant), Growing Power, the Michael Fields Agricultural Institute, and more than 30 organizations in numerous U.S. cities. The book highlights ideas and stories about efforts to improve food security in large urban areas of the U.S. by strengthening community food systems. Activists and scholars talk about what is working and what still needs to be done to ensure that everyone has access to readily available, affordable, appropriate, and acceptable food.



**Keefe Keeley (RA with Steve Ventura)** also recently finished editing with Curt Meine their book, *The Driftless Reader*. It is a collection of excerpted literature and art highlighting the natural beauty of the land and its people of southwestern Wisconsin, Minnesota, Iowa, and Illinois. Authors of these selected texts include Aldo Leopold, Black Hawk, Mark Twain, and many others. Congratulations, Keefe!

## Our Supporters

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## Department of Soil Science at the University of Wisconsin-Madison

I/we wish to join other students/alumni, industry, and friends in enhancing the teaching, research, and outreach programs in the Department of Soil Science by contributing as indicated below.

\_\_\_ \$50    \_\_\_ \$100    \_\_\_ \$250    \_\_\_ \$500    \_\_\_ \$1,000    \_\_\_ Other

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Online donation is available on our website <http://soils.wisc.edu/alumni-friends/>



# Profiles

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## Alumni Updates

**Eric Melby** (MS, 2010; PhD, 2016) - Dr. Eric Melby recently left his Postdoctoral Research Associate position at the Pacific Northwest Laboratory in Richland, WA to accept a tenure track chemistry position at Columbia Basin College in Pasco, WA beginning in the fall of 2017.

**John Meyer** (BS, 1982) - John Meyer is employed with Koch Turf & Ornamental as the Senior Western Regional Sales Manager promoting enhanced efficiency fertilizers recognized for reducing nitrogen loss into the environment.

## Save the Date

The 6th annual Leo M. Walsh Distinguished Lecture in Soil Science is scheduled for Wednesday, May 2, 2018 at 3:30 pm Soils Bldg, Room 270. This year's guest presenter is Dr. Michael Castellano, Associate Professor, Department of Agronomy, Iowa State University.

### Alumni Update

**We'd love to hear from you!** Please complete and return this form or send your updates via email to: [jgarvin2@wisc.edu](mailto:jgarvin2@wisc.edu)

Name: \_\_\_\_\_

Degree(s) and Year(s): BS (     ) MS (     ) PhD (     ) \_\_\_\_\_

Home Address: \_\_\_\_\_

Email: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Position: \_\_\_\_\_ Employer: \_\_\_\_\_

News to share: \_\_\_\_\_

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