



January 2022 Newsletter

[Agroecology.wisc.edu](http://Agroecology.wisc.edu)

---

## Letter from the Chair

Colleagues and Friends,

I hope this email finds you well amid all the turbulence over the last few years.

I am happy to be able to say a few words about the agroecology program in this newsletter, put together by student services coordinator Caitlin Collies. The program is now 16 years old and we recently received a strongly positive review by the graduate school. The program continues to attract excellent applicants and matriculate 8 to 12 students per cohort. Over the last few years the College has been able to hire a number of new faculty who have affiliated with the program and we look forward to them becoming more involved in our courses. For the last two years we have been planning a spring agroecology symposium, but each time it has been derailed by COVID. We're going to try again this spring, probably in April, and we will keep you posted on that.

The interest and activity in agroecology has continued to grow. Professors Mike Bell, Claudio Gratton, and Randy Jackson began teaching an introductory agroecology course a few years ago and it has boomed in popularity. Attendance right now is limited by the number of TA's we can hire. A group of faculty including Randy Jackson, Mike Bell, Claudio Gratton, and Erin Silva are developing course work and a curriculum for an undergraduate major. And there are discussions of creating a Department of Agroecology including a Ph.D. program. The seeds that many of you planted here are growing into an exciting future.

We wish you all a happy and healthy 2022,

Bill Tracy

Agroecology Program Chair

---

## Faculty Spotlight

Zac Freedman is a new Assistant Professor in the Department of Soil Science. As an undergraduate he became keenly interested in the ecosystem consequences of human-induced disturbances and engaged in research on the environmental impacts of silver mining in the Coeur d'Alene River Valley, Idaho through Gonzaga University. After finding this experience to be extremely enjoyable, Zac pursued his PhD at Rutgers University with Dr. Tamar Barkay to investigate questions related to mercury (Hg) bioremediation. Though, a twist of fate and love for fieldwork instead brought Zac to Yellowstone National Park to decipher microbe-metal interactions in the heat-loving microbes that inhabit Yellowstone's hot springs. As a postdoc at the University of Michigan, Zac worked with Dr. Don Zak and illuminated microbial mechanisms mediating increased soil carbon storage in forests exposed to elevated nitrogen deposition. Zac was then an Assistant Professor at West Virginia University where the main thrust of his research program investigated the soil health and environmental sustainability of bioenergy crop production systems on former surface mines. In his new position at UW-Madison, Zac and his research team will continue to research questions related to the soil health and sustainability of agricultural systems as well as to how climate change will alter the soil ecology and nutrient dynamics of Wisconsin's forests.



## Welcome our New Affiliated Faculty

[Jennifer Gaddis](#)

[Nan Enstad](#)

[Shelby Ellison](#)

[Anna Gade](#)

[Holly Gibbs](#)

[Zac Freedman](#)

## Student Profile: Ari Abbrescia

**How did you get to where you are today?** I'm from Delaware and went to school at Villanova. I've always been very passionate about learning about the environment and understanding natural systems. I was originally pre-veterinary medicine, going into college as a biology major. Separately from that, I was doing a lot of climate advocacy, lots of work with migration and global hunger. At that point, my interest in the environment and improving systems of interaction was separate from education. But then I took an Ecology course and a Justice through Agriculture course and I fell in love and knew that I would pursue a career in the space. I pivoted away from vet medicine and went into ecosystem restoration and lots of horticultural work. My post-grad course became Agroecology. So I found UW and reached out to professors. I really wanted to work with organics having learned about the ways that conventional ag interacts with the environment. Organics is a wonderful solution to so many problems. Dr. Silva reached out with an opportunity and now I'm working with Drs. Groves, Gevens and Silva.



## What will you be working on?

I'll be looking at local diseases of interest and running meta-analyses for organic growers. That will result in resources and guides around what organic products work best for controlling diseases and what cultural methods of prevention we have to work with. Mostly looking at vegetable crops.

---

## Fall 2021 Cohort

**Grace Connelly**—Advised by Shelby Ellison  
**Dylan Bruce** —Advised by Julie Dawson  
**Carly Huggins**— Advised by Randy Jackson  
**Salvador Grover**—Advised by Zac Freedman  
**Claire Benning**—Advised by Matt Ruark  
**Mengmeng Luo**—Advised by Thea Whitman  
**Margaret Baker**—Advised by Claudia Calderon and Julie Dawson  
**Ariana Abbrescia** —Advised by Russell Groves and Amanda Gevens  
**Kayla Sherman**—Advised by Julie Dawson  
**Elena Bird**— Advised by Nan Enstad

## Recent Graduates

**Hannah Francis**  
**Hanna McIntosh**  
**Nicholas Gallagher**  
**Corey Blant**  
**Margaux Crider**  
**Stefania Cartoni**  
**Dana Johnson**  
**Kelsey Kruger**  
**Ambar Carvallo Lopez**  
**Korede Olugbenle**

## Course Highlight: Agroecology 103

Agroecology 103: An Introduction to the Ecology of Food and Agriculture is a course focused on analyzing farms and the food system through the lens of ecology. Students learn how farms are ecosystems which influence and are influenced by their larger economic, social, and ecological contexts. This semester, the course is being taught in a "reversed classroom" format, with students watching and reading online material, then coming to lecture and discussion to dig deeper into the week's topic.

The course builds a foundation on the basics of ecology, agronomy, and sociology, and dives into a sampling of agriculture's biggest questions, from "Should we eat meat?" to "Can we feed the world?" The goal of the course is not to tell students what to believe, but to give them the tools to critically assess others' claims and come to their own conclusions. Indeed, on the first day of lecture, students were warned that in Agroecology, the answer to their questions is often the frustratingly and wonderfully vague statement: "It depends."

We just wrapped up the section on organic versus conventional farming, which illustrates this perfectly. Should we buy organic food? Students learned about what organic certification entails and some of its effects on economic, social, and environmental variables. A farmer can sell an organic crop for a premium and reduce the use of persistent synthetic pesticides, but the increased use of tillage for weed control can lead to higher erosion and the farmer is under no obligation to pass the increased income on to farmworkers. The question becomes, "What do we value, and in what context does organic deliver those things?"

Because, as our students are learning, context is everything.

[Agroecology course encourages students to explore their perceptions of agriculture – CALS News \(wisc.edu\)](https://news.wisc.edu/agroecology-course-encourages-students-to-explore-their-perceptions-of-agriculture/)



---

## Agroecology 720: An Introduction to Agroecology in Wisconsin

The incoming cohort of Agroecology Masters students had the opportunity to kick off the 2021 fall semester getting to know each other and getting to know agriculture, farming, food systems, and conservation in the state. As part of the Agroecology 720 course students were able to spend four days traveling the state.

The course kicked off close to home with a tour of the [West Madison UW Research Station](#) and presentations by Drs. Bill Tracy, Claudia Calderon, and Shelby Ellison about their important research. The group visited the [the Eagle Heights Community Garden](#) and were able to discuss with Dr. Erin Silva organic systems research and trends. Graduate Student Daniel Hayden joined the group and was able to share information about the Wunk Sheek Indigenous Student garden, as well. Students also heard from the former Agroecology MS student Korede Olugbenle, President of the Plant Science Graduate Student Council (PSGSC) about opportunities to get involved.

The next day the group headed up to the [Aldo Leopold Foundation](#) outside of Baraboo and toured the Leopold Shack and learned about Leopold's *Land Ethic* in conversation with Dr. Curt Meine. Just on the other side of the Wisconsin River from the Shack students got to experience a typical Wisconsin dairy farm at instructor Dr. Sarah Lloyd's farm outside of the Wisconsin Dells (450-cow, conventional dairy, 1000 acres of crop land). The day wrapped up at Coloma Farms, a mid-size (by Wisconsin standards) potato farm run by the Diercks family. Diercks' have worked over the years with UW researchers and Extension to solve pest and cropping system issues. Students were able to talk with Andy Diercks about market and supply chain issues impacting potato farmers and what a good farmer-researcher relationship looks like.

Day three of the course started off at the [UW Marshfield Agricultural Research Station](#). Students met with Assistant Superintendent Jason Cavadini and Agroecology MS student Brooke Bembeneck, who now works for the Marathon County Conservation, Planning and Zoning Department to learn about ongoing research on conservation cropping systems, grazing, and dairy heifers at the Station. The group headed up to [Cattail Organics](#) diversified vegetable farm to talk with farmer Kat Becker about how she is building her farm business (both CSA and wholesale accounts) and the research projects in vegetable seed selection that she is involved in with the UW.

The final day of the field trip took the group to Milwaukee for a visit to [Alice's Garden Urban Farm](#) to talk with Executive Director Venice Williams about the community building work and vegetable and herb production at the garden. Jay Salinas, Co-Founder of Wormfarm Institute, that works with Alice's Garden on the [Rural-Urban FLOW](#) project, stopped by to talk about the collaboration along the rural-urban continuum. Students helped out with some small work projects while there. Students visited the Sherman Phoenix community development initiative, including the [Kujichagulia Producers Cooperative](#). Before leaving the city, the group stopped at another community garden effort, visiting one of the [Groundwork Milwaukee](#) neighborhood projects. The day was rounded out by a picnic back in Madison with 2<sup>nd</sup> year Agroecology MS students, students who have completed the program, and faculty and staff.

As a finale to the class, students were asked to engage with the [UW Grassland 2.0](#) and [Wormfarm Institute Fermentation Fest "Grassland edition"](#) event in Witwen, WI (outside of Sauk City) at the end of September. Students volunteered, helping put on the 2-day event that featured educational activities about perennial agriculture, including dancing, singing, Scandinavian cow-calling, musical performance, participatory theater and grass-fed dairy tasting!

From Madison to Marathon County to Milwaukee and back again, 720 hopefully provided a good opening to the Wisconsin Idea.



Alice's Garden in Milwaukee, WI



Aldo Leopold's Shack



UW Marshfield Ag Research Station

---

## Summer Field/ Research photos



Korede Olugbenle harvesting Kernza grain at the Arlington Agricultural Research Station



Picasso lab celebrating Stefania Cartoni and Korede Olugbenle's graduation from Agroecology



Korede Olugbenle and Erica Shoenberger standing in a Kernza field at the Arlington research station, being interviewed by the host of the TV show "Around the Farm Table" produced by PBS Wisconsin



Picasso Lab harvesting for Erica Shoenberger's thesis experiment on agronomic management practices to recover Kernza grain yield. They are using quadrats to harvest spikes, forage, and weeds at the West Madison



Agroecology 720 Students toured the UW Marshfield Agricultural Research Station and learned about ongoing pasture and crop systems and dairy heifer research

## Thank You To Our Supporters!

Your support provides funding for research and student development within the program.

If you would like to give back to the Agroecology Program please visit our [Friends of Agroecology](#) page on the [Agroecology website](#).

## Alumni

We want to hear from our alumni! Send any alumni updates including current positions, awards, research, publications, etc. to [caitlin.collies@wisc.edu](mailto:caitlin.collies@wisc.edu)

## Follow Along On Social Media



@uwmadisonagro