

# Practical Training on Nitrogen Planning and Management in Organic Production of Annual Crops

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## About this workshop

In this 3-part series, participants will learn how to estimate nitrogen release from diverse organic sources and translate that knowledge to nitrogen fertilization decision and regulatory reporting requirements. We will cover the most common sources of nitrogen and complete a nitrogen budget

- Virtual event
- Must enroll in all 3 classes
- Cost \$25
- Earn 6 hours CCA credits
- Earn 6 hours of CDFA-INMTP CE credits

[REGISTER HERE](#)  
Limited to 75 participants

3-part workshop  
Tuesday, **November 29**  
Monday, **December 5**  
Monday, **December 12**  
**1-3 pm**

## Who should enroll?

Growers, CCAs, PCAs and other agricultural professionals who are interested in learning about nitrogen management in organic production are encouraged to enroll.



### **November 29, 2022, 1-3 pm Part 1: Understanding nitrogen: the nutrient, the role of microbes and the relevance of soil organic matter.** *Presenters: Daniel Geisseler, Radomir Schmidt and Margaret Lloyd*

We will begin with an overview of the sources, transformations and fates of nitrogen in soil. We will discuss the role and dynamics of microbes in nitrogen management, and how that impacts management decisions.

### **December 5, 2022 1-3 pm Part 2: Estimating nitrogen release from organic amendments and contributions from cover crops.** *Presenters: Patricia Lazicki and Margaret Lloyd*

This session focuses on estimating nitrogen release from compost, organic fertilizers, cover crops and crop residue and irrigation water.

### **December 12, 2022 1-3 pm Part 3: Put it all together: Complete an N budget, synchronize nitrogen release with nitrogen demand, and use soil tests** *Presenters: Joji Muramoto, Richard Smith and M. Lloyd*

In this session, we will address nuances of organic soil fertility management in vegetables. Discussions will include crop nitrogen demand and strategies to supply demand, as well as using and interpreting soil testing. Specific references will be made to strategies for complying with forthcoming regulations. We will conclude with a discussion on new frontiers in organic nitrogen management.

## About the Presenters



**Daniel Geissler** is an associate Cooperative Extension specialist in the Department of Land, Air and Water Resources at UC Davis. Daniel's research and outreach focuses on nutrient turnover and plant nutrition in agricultural systems. He is interested in the effects that different management practices have on nutrient use in California crops and how nutrient use efficiency can be improved, particularly with nitrogen.



**Patricia Lazicki** is a postdoctoral research associate at the University of Tennessee, Knoxville. Her research focuses on soil health and fertility in organic cropping systems. Previously, as a soil science researcher, she worked to develop the nitrogen guidelines for crops throughout California.



**Margaret Lloyd** is the Small Farms Advisor for Yolo, Solano and Sacramento Counties. Her research and outreach focuses on the needs of organic vegetable farms. Margaret has spent the last several years on understanding nitrogen management in organic tomato production.



**Joji Muramoto** is an assistant Cooperative Extension organic production specialist based at UC Santa Cruz. His research and extension focus on fertility and soilborne disease management in organic vegetables and strawberries. With his statewide responsibility for research and extension in organic production, he is networking organic systems researchers across the state to better serve organic communities throughout California.



**Radomir Schmidt** is a program manager at the Working Lands Innovation Center at the UC Davis Institute of the Environment. As a soil microbiologist, Radomir conducts research on the effects of specific farming practices (organic amendment application, enhanced rock weathering, cover cropping, no-till systems) on carbon sequestration and greenhouse gas fluxes in soils, and on the the roles of microbial communities in soil health improvement and maintenance.



**Richard Smith** is Vegetable Crops and Weed Science Farm Advisor in Monterey, Santa Cruz and San Benito Counties with the University of California Cooperative Extension. Richard conducts a research and education program on nutrient management in cool season vegetables to help growers improve efficiency of applied nitrogen. He is interested in practices and tools that help growers obtain economic yields while reducing the risk of nitrate leaching.

For more information, contact Margaret Lloyd @530-564-8642, email: [mglloyd@ucanr.edu](mailto:mglloyd@ucanr.edu)