

# NOVIC Northern Organic Vegetable Improvement Collaborative

The goal of the Northern Organic Vegetable Improvement Collaborative (NOVIC) is to improve the profitability of organic farmers and the quality of organic produce for consumers. This is a joint collaborative project of <sup>1</sup>Oregon State University, <sup>2</sup>University of Wisconsin-Madison, <sup>3</sup>Cornell University, <sup>4</sup>Organic Seed Alliance, <sup>5</sup>USDA-ARS PGRU, and over 30 organic farms in OR, WA, WI, and NY. Collaborators include Lane Selman<sup>1</sup>, Shinji Kawai<sup>1</sup>, Kara Young<sup>1</sup>, Ryan King<sup>1</sup>, Jim Myers<sup>1</sup>, Erin Silva<sup>2</sup>, Bill Tracy<sup>2</sup>, Anne Pfeiffer<sup>2</sup>, Ginny Moore<sup>2</sup>, Michael Mazourek<sup>3</sup>, Rachel Hultengren<sup>3</sup>, Micaela Colley<sup>4</sup>, Laurie McKenzie<sup>4</sup>, Jared Zystro<sup>4</sup>, and Joanne Labate<sup>5</sup>.

## GOAL Develop new vegetable varieties for organic agriculture

Organic systems represent an agroecological environment different from conventional systems. Due to significant genotype by system interaction, varieties intended for organic production should be bred in those conditions for optimal performance and adaptation. We use the participatory plant breeding model to develop open-pollinated varieties adapted to meet the needs of organic growers.



- 8 crops being developed for organic agriculture
- 2 new commercial organic varieties
- 40 states where new organic varieties have been sold



## GOAL Conduct variety trials with farmers in real-world conditions

We use the innovative mother-daughter trialing method in which each regional hub conducts replicated trials while several single reps are grown at regional commercial organic farms. One trial is farmers' choice, where farmers in each region choose priority crops to trial each year. Our team identifies commercial cultivars and new breeding lines that are productive, stable, and resilient in organic systems. These breeding lines are continually tested in the diverse, real-world environments of our farmer partners in each region.

### Breeding Objectives

- Tomatoes** Late blight resistant and adapted to PNW
- Cabbage** Purple storage type with exceptional color, flavor, and field holding and storage
- Bell Pepper** Early, high yielding blocky red types with good flavor
- Sweet Corn** High quality, early maturing hybrid and OP supersweet types
- Winter Squash** Short season, disease resistant acorn and delicata types



## GOAL Improve the ability of farmers and seed producers to grow organic seed

We host variety trial field days and in-depth participatory plant breeding workshops to engage and empower organic producers with skills and information. In partnership with eOrganic, we maintain a database of published organic variety trial results. The team also publishes on project outcomes to a variety of audiences, including growers, seed companies, regulators, academic peers, and a general audience.



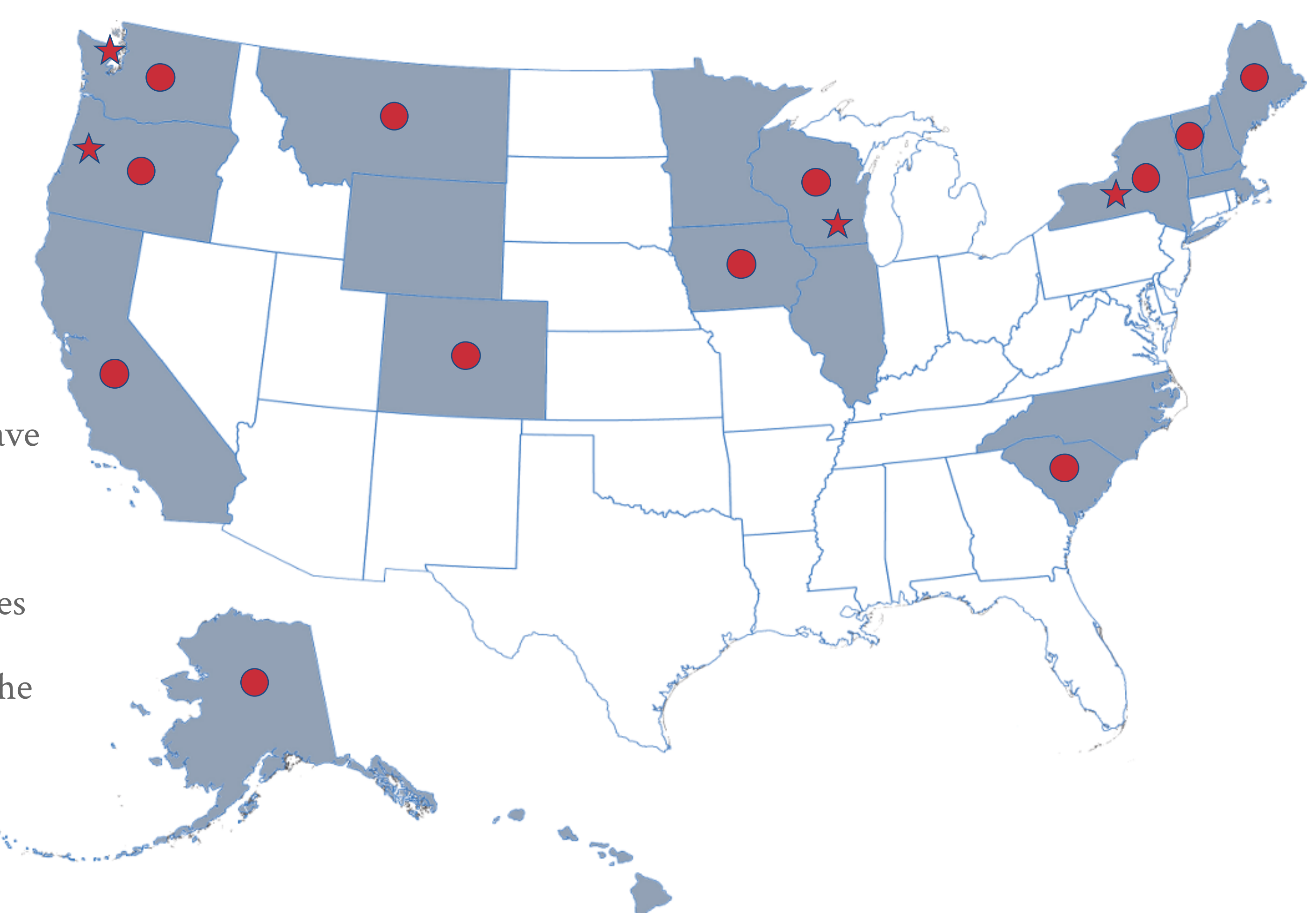
- 8 graduate students trained in NOVIC who now work in organic industry
- 80 NOVIC events and presentations
- 19 states reached with NOVIC in-depth trainings



## REACH

### Key

- ★ NOVIC hub locations
- States where NOVIC workshops and presentations have been delivered
- Constituents in gray shaded states have received trainings from the NOVIC project



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### Learn more

Contact [james.myers@oregonstate.edu](mailto:james.myers@oregonstate.edu) and visit us at [eorganic.info/novic](http://eorganic.info/novic)