Organic Seed Alliance

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On-farm Plant Breeding for Resilient Organic Systems

An Online Course with Organic Seed Alliance

May 2026 - October 2026

Program Description:

A five-month program combining online synchronous sessions and farm-based independent study

Program Structure:

- 14 sessions correspond to an assortment of technical, economic, and socio-cultural aspects of On-Farm Plant Breeding for Resilient Organic Systems
- The course is planned to run from May 7th to October 8th, 2026

Each Module Features:

- Pre-recorded videos on course topics
- Supplemental reading material with links to additional resources
- Live Meetings:
    - Two 90-minute group discussions per month on course materials, usually featuring guest speakers. Classes are planned to be held on Thursdays from 4 to 5:30 PM Pacific Time
    - Optional office hours with instructors to receive support and feedback
- Course Projects
    - **Season Long Project:** Development of an on-farm plant breeding plan.
    - Students who will have a mentor are expected to complete a professional development plan (with one-on-one mentorship)

Expected Workload:

1-2 hours per week of independent study plus 3 hours per month of live meetings

Mentorship Program:

Students who are located in the Pacific Northwest TOPP region **(Washington, Oregon, Idaho, Montana, Wyoming, and Alaska)** and the Southwest TOPP region **(Arizona, California, Hawaii, Nevada, New Mexico, Texas, and Utah)** will have the option to have access to a local organic seed grower mentor.

- Work together with a mentor to outline expectations for the mentorship program
- Access to mentorship guidance in technical, agronomic, and economic aspects of on-farm plant breeding
- In collaboration with course moderators, adapt or suggest alternative course activities to ensure maximum relevance for the mentorship program

Program Objectives:

1. Cultivate a network of organic seed producers with knowledge in on-farm plant breeding for resilient organic systems, committed to contributing to alleviating the ongoing shortage of organic seed in the country
2. Cultivate a network of organic seed mentor farmers committed to educating the next generation of farmers
3. Provide individualized learning opportunities to support the development of professional and personal paths in seed stewardship.

Curriculum

Course Requirements:

1. Watch videos on module topics (Approx. 2 hours per month)
2. Complete learning assessments and on-farm homework assignments (Approx 8-10 hours per month)
3. Attend bi-weekly live discussion (1.5 hours per session)
4. Complete season-long activity including the development of an on-farm breeding project and the evaluation/selection of crop varieties (minimum 5 hours per month over five months, likely weighted towards October)
5. Complete program evaluation(s)

2026 Module Outline

(The exact topics and dates may change)

Module		Live Discussion Date
1	Socio-ecological resilience framework and the importance of classic plant breeding of organic seed in the resilience of the organic farm	Thursday May 7th, 2026
2	Basic genetics concepts and their implications on classical organic plant breeding:	Thursday May 21st, 2026
3	Basic math and statistics for classical organic plant breeding	Thursday June 4th, 2026
4	Crop mating systems and their effects on plant breeding	No live discussion; open module
5	Developing a plant breeding plan: Thinking about "place and purpose" of the breeding plan	Thursday June 18th, 2026
6	Developing a plant breeding plan: Generating genetic variability	Thursday July 2nd, 2026
7	Developing a plant breeding plan: Sourcing the appropriate germplasm	Thursday July 16th, 2026
8	Developing a plant breeding plan: Creating a breeding timeline	Thursday July 30th, 2026
9	Models of intellectual property rights and their implications in plant breeding	No live discussion; open module
10	Guest speakers of the world: Plant breeders and their experiences in the Alliaceae, Amaranthacea and/or Apiaceae family	Thursday August 13th, 2026
11	Guest speakers of the world: Plant breeders and their experiences in the Asteracea, Brassicacea and/or Cucurbitaceae family	Thursday August 27th, 2026
12	Guest speakers of the world: Plant breeders and their experiences in the Fabaceae, Poaceae and/or Solanaceae family	Thursday September 10th, 2026
13	Guest speakers of the world: Plant breeders and their experiences in ancestral native seed systems	Thursday September 24th, 2026
14	Wrap up and student presentations (OPTIONAL)	Thursday October 8th, 2026

NORTHWEST TRANSITION TO ORGANIC PARTNERSHIP PROGRAM

WESTERN EXTENSION RISK MANAGEMENT EDUCATION

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