**METHODS & RESULTS**

**3. Project is supporting the DFC by:**

- Farming management practices with a hands-on participatory approach. The Oregon State University Extension Service Dry Farming Project is sharing information with one another about their methods, experience, and results. The DFC (initiated spring of 2016) is a group of farmers, extension educators, plant breeders, and agricultural professionals partnering to increase knowledge and awareness of dry farming management practices with a hands-on participatory approach. The Oregon State University Extension Service Dry Farming Project is supporting the DFC by:

1. Facilitating networking and communication via the DFC Facebook Group (380+ members), email list (100+ subscribers), and annual meeting.
2. Coordinating and hosting trials, demonstrations, and field days at multiple DFC sites.
3. Developing educational materials (extension publications, videos, resource hub on OSU Small Farms website) to help growers new to the project understand the basics of dry farming.
4. Developing tools and resources for participatory climate adaptation research.

**BACKGROUND**

Farmers in the Western United States are becoming increasingly affected by climate change through reduced snowmelt, increased temperatures, drought, and reductions in summer irrigation availability. It is becoming critical for the viability of farms in our region, and the security of our food system, to increase our knowledge and awareness of drought mitigation tools and strategies for growing with little or no irrigation.

The OSU Dry Farming Project began in 2013 with case studies, demonstrations, and field days in Western Oregon. Interest in dry farming vegetables has grown significantly since the drought in 2015. For example, in 2017 more than 30 growers in the Dry Farming Collaborative (DFC) throughout Western Oregon and Washington are experimenting with dry farming, hosting trials on their farm, and sharing information with one another about their methods, experience, and results. The DFC (initiated spring of 2016) is a group of farmers, extension educators, plant breeders, and agricultural professionals partnering to increase knowledge and awareness of dry farming management practices with a hands-on participatory approach. The Oregon State University Extension Service Dry Farming Project is supporting the DFC by:

**ACTIVITIES**

**INPUTS**
- Skilled, passionate staff with expertise and experience in dry farming
- Funding from USDA NIFA ($26,105) / Oregon SARE ($7,888), USDA NW Climate Hub ($45,000), and support from multiple private donors (> $5,000)
- Dry Farming Project selected to be part of the Extension 3-Three Issue Corps in 2016, which led to the employment of strategies that enhanced project capacity, reach, and expansion.
- Local, regional, and national partners and networks.
- OSU capacity to host, improve and expand educational materials.

**OUTPUTS**
- 10 identified effective management practices for dry farming including: organic matter addition, crop varietal selection, increased plant spacing, surface protection, scheduling timing and techniques.
- 10 published articles; 40,000 readers
- 500 growers interested in learning dry farming techniques
- 6 dry farming demonstration plots
- Dry farming field days (17 sites)
- 150 participants
- 15 different crop varieties and 12 different species of drought tolerant native rain catchers
- 51 events, 49 speakers, 7 topics addressed including: dry farming practices, plant breeding, soil quality, water rights, water catchment, and keylines
- 715 participants, 898 comments of online videos
- 74 farms hosted farm tours
- 260 OSU Facebook Page members, 450+ posts, 20 share points
- 130 small bio members, 20 top topics discussed
- 175 participants at DFC meetings and gatherings
- 48+ varieties, 50 locations
- 12 farms providing data on crop yields, seasonal performance, 50+ volunteer providing data on flavor with sensory evaluations
- Data collection process upgraded from paper to online survey and custom data spreadsheet
- Data collected on various factors such as yield, flavor, and other crop varieties selected by DFC.

**SHORT-TERM OUTCOMES**

**Changes in Knowledge**
- Increased knowledge about dry farming specialty crops
- Increased awareness of resources available to support dry farming
- Increased awareness of future challenges of climate change
- Increased knowledge about how dry farming affects quality (flavor, texture, and storage life) for various specialty crops.

**Changes in Behaviors**
- Implementation of dry farming practices for specialty crops production
- Increased frequency of connecting with other farmers engaged in dry farming
- Increased frequency of connecting with resources to support dry farming
- Demand for dry farming produce increases creating niche marketing opportunities.

**Changes in Attitudes**
- Increased sense of support
- Increased positive outlook
- Increased sense of support
- New farmers encouraged by the cropping systems

**Changes in Social Network**
- Increased connection to experienced farmers, resource specialists, and a collaborative learning community (DFC)

**CONCLUSIONS**

This participatory climate adaptation research project allows for different levels of participation, and the replications are small (100 sq ft) to allow even home gardeners to be involved. This inclusive approach has broadened our reach and is growing in our region. Each member of the DFC brings expertise and innovations, which accelerate collective learning. DFC members share concerns about the future of our water supply and agree that exploring alternatives to irrigated agriculture is a necessity for the sustainability of their farms. Sharing models and examples of participatory climate adaptation research could help inspire other projects out of the planning phase and into action. A working template of the collaborative approach and tools developed for this project could be used and modified for other projects in our region and beyond. For more information on the Dry Farming Project visit [http://smallfarms.oregonstate.edu/dry-farm/dry-farming-project](http://smallfarms.oregonstate.edu/dry-farm/dry-farming-project).