
This is a final project report submitted
to the Organic Farming Research Foundation.

Project Title:

Production guides for organic carrot, lettuce and beet
seed

Investigator:

Micaela Colley
Organic Seed Alliance
P.O. Box 772
Port Townsend, WA 98368
micaela@seedalliance.org
(360) 385-7192

OFRF funding awarded: \$13,614 (1 year) awarded spring 2008

Funding category: Education

Project period: 2008 - 2009

Report submitted: March 2010, 4 pages



Project Summary:

Organic Seed Alliance (OSA) has released three new publications on the *Principles and Practices of Organic Lettuce, Beet, and Carrot Seed Production*. The guides are now available (as of March 15th, 2010) online and in print form and are being disseminated through a variety of outreach venues targeting organic growers and agricultural professionals. The three guides complement OSA's other educational publications filling a gap in information on organic seed production practices. Access to this information will increase the success of organic seed producers, availability of high quality organic seed, and development of a vital organic seed market.

The content of the guides follows a similar format to other OSA publications covering both crop biology and practical field production practices for each crop. The full-color guides include many photos demonstrating seed production practices. They were developed by drawing upon the collective expertise of OSA staff, experienced organic seed farmers, and industry professionals. We additionally consulted with university research and Extension specialists on appropriate topics and conducted reviews of the literature and related publications. The guides were reviewed by both farmers and research professionals.

Farmers, Extension agents and other agricultural professionals look to OSA for organic seed production information. Through workshops, publications, conferences, field days, and collaborative online venues such as eOrganic, the new crop guides will be widely utilized for years to come.

Introduction to Topic:

Lack of available quality and quantity of organic seed is recognized as a weak link in organic systems and has resulted in ongoing exemptions to the National Organic Program seed regulations. While organic seed production is a developing industry and viable opportunity for organic growers, there is a lack of available information and educational support on organic seed production methods. Few Extension programs have the knowledge or outreach capacity to provide organic seed support. Extension programs offer at most only conventional seed production guides, many of which are significantly outdated and lack appropriate recommendations for organic producers.

The western region of the U.S. is a global supplier of dry-seeded vegetable seed and a stronghold of organic vegetable production, which strengthens its potential as a prime region for organic vegetable seed production. Carrots, beets, and lettuce are high demand vegetable seed crops which are well-adapted to production in various climatic zones of California, Oregon, Washington, and Idaho. Availability of crop specific information on organic seed production will increase grower's success and recognition of the western region for organic production of these seed crops.

Objectives Statement:

The objective of the guides is to strengthen a weak link in organics by bridging an information gap in the methodology of organic seed production thereby facilitating increased availability of quality organic seed.

Materials and Methods:

John Navazio, Micaela Colley, and Jared Zyskowski led in the authorship of the guides and collaborated on writing on individual topics. Lettuce seed specialist Frank Morton additionally contributed content and extensive tutorial photos for the lettuce seed guide. Each author researched the topics through a variety of means including interviews with farmers, consultations with researchers, reviews of the literature, reviews of past Extension publications, and seed-related technical books. A few older Extension guides were found on beets and lettuce but the information was out of date and oriented toward conventional production. Seed production information is highly privatized and held closely by the seed industry. Through OSA's personal connections to seed industry experts we were able to acquire detailed input on techniques used in seed production.

The content of the guides follows previously published OSA seed guides which include sections on crop history, life cycle, and basic biology; climatic parameters; soil and fertility requirements; planting and cultivation; flowering and pollination; isolation requirements and contamination issues; genetic maintenance and improvement including recommended population sizes and selection criteria; harvest timing and methods; diseases of concern and prevention/management recommendations; and seed conditioning and cleaning. All content is focused on organic practices and recommendations.

The guides are approximately 15 pages long, printed in full color, and contain several photographs. The photos demonstrate field and handling techniques of each crop. Each guide includes a References and Resources section and OSA's Creative Commons agreement which protects and allows free access to the material in the public domain.

Support from OFRF is acknowledged on the front cover of each guide.

Project Results:

All three guides are completed, published and have received positive reception from growers and others. They are available on the OSA website (<http://www.seedalliance.org/Publications/>) and are being disseminated in print form (see Outreach).

Conclusions and Discussion:

Beets, carrots, and lettuce are three seed crops ideally suited to the climatic conditions of many areas in the Pacific Northwest. We anticipate that availability of information on how to grow

these crops organically will cause seed companies to contract with growers to grow out these crops and increase the number of farmers who begin producing seed of these crops either for their own use or sale. OSA regularly teaches organic seed production workshops. Our workshop participants routinely request information on production of specific crops. Since it is difficult in a workshop to go into detailed depth on such topics as plant spacing, timing, and harvest practices on every crop for a region, the guides will be a very useful follow-up tool that workshop participants can follow to plan their production.

As organic seed production of these three crops increases in the region, the organic seed industry will need to establish itself within the greater seed production community and coordinate and negotiate on such issues as isolation distances and disease management practices. As a self-pollinated crop, lettuce seed production will not require as much coordination but beets and carrots are highly cross-pollinating and organic production of these crops is already at threat of cross contamination with conventional crops in certain regions. In the Willamette Valley, for example, there is production of conventional and genetically engineered sugar beet seed. In Island County of Washington state there is an established conventional table beet seed production industry. The eastern regions of both Oregon and Washington have a historically established carrot seed production industry. It is our hope that these guides not only establish the viability of organic seed production in these regions, but will also encourage farmers and the organic seed industry growing these crops to communicate and negotiate with the conventional industry in the region.

Outreach:

The guides were completed in 2010 and full outreach efforts have just begun. The guides were completed in time to disseminate at The Organic Farming Conference (OFC), hosted by MOSES in La Crosse, WI, February 2010. OSA hosted the first ever Seed Swap at OFC and delivered two seed education workshops and an all-day seed symposium. The publications were made available at the seed swap and workshops.

An announcement of the three new guides is prominently displayed on the OSA website landing page (www.seedalliance.org) and has received 64 hits on the link to the new publications in the past week (March 7-15, 2010). We are sending an email announcement to the OSA email list and a brief article through our blog promoting availability of the guides. We are also implementing a download tracking system on the OSA website which will allow us to track numbers of ip addresses (users) who download the manuals, so over the next year we will be able to report more specifically on metrics of distribution.

Over the past year sections of the guide were shared with farmers and others through OSA seed saving workshops (four events). They were also used to create production specifications (one-page production guidelines) for 20 farmers in the North Olympic Growers Network and the

Family Farmers Seed Cooperative. These producers are growing all three crops in 2010 and will be actively implementing production guidelines from this project.

In 2010 and beyond we will continue to disseminate print versions of the guides and integrate information from the guides into OSA seed production workshops. We have created a one-page handout that directs how to access all of OSA's publications, including the three new guides, online. Since all are available for free download in pdf format this facilitates wide accessibility while reducing paper waste. Since the guides are heavy and 15+ pages long, this also aids in promotion of the guides at events when transport of extensive numbers of print guides is prohibitive. Promotion and dissemination of the guides in full print, pdf, and as a single-page handout will be accomplished through the following activities:

- A press release announcing the guides with a link to online pdfs sent to OFRF, Washington State University's (WSU) Center for Sustainable Ag and Natural Resources, Capital Press, Tilth Producers, Oregon Tilth, Oregon State University's (OSU) Small Farms Team, WSU Small Farms Team, Acres USA, Growing for Market, Jefferson County Food and Farm Network, Organic Broadcaster, and Rural Roots.
- A press release announcing the guides sent to seed companies who sell organic seed. There are thirty such companies in the OSA email list.
- Links to the pdfs of the guides posted to the Organic Seed Resource Guide on eOrganic: <http://www.extension.org/article/18340>
- Print copies will be made available at OSA educational events in 2010 and 2011. Planned outreach events include OSA Seed Production workshops (at least three events in 2010), Fundamentals of Organic Seed Production Workshop on Salt Spring Island (July 2010), Tilth Producers Conference November 2010, Organicology Conference February 2011 (an all-day seed production intensive will be held during this event), and EcoFarm January 2011.
- A packet of print copies of each guide will be mailed to all members of the Family Farmers Seed Cooperative and the North Olympic Growers Network, two farmer-led seed growing groups who are producing organic lettuce, carrot, and beet seed crops.
- Outreach through Extension agents who serve farmers interested in organic seed production. We will deliver 20 copies of each guide to Extension agents who serve organic producers including Alex Stone, OSU, Melissa Mathewson, OSU, Nick Andrews, OSU, Drew Corbin, WSU, and Carol Miles, WSU. We will also deliver 50 copies of the one-page handout advising how to access all OSA publications, including the three manuals, online.