

## The Missouri Elderberry Development Program

### **Educational Objectives**

The Missouri Elderberry Development Program was initiated in 1997 as a collaborative effort among University of Missouri, Missouri State University, Lincoln University, and USDA-ARS to foster development of elderberry as a commercial fruit crop. The program has two focus areas: research in the areas of cultivar development, cultural practices and pest management, the genetic basis of elderberry species differentiation, and elderberry and human health; and outreach efforts in elderberry production and marketing, as well as promotion of elderberry as a viable alternative crop for Missouri farmers.

When the project was initiated in 1997 there was no identifiable commercial elderberry production in Missouri, little published information on elderberry research, and only a handful of dated publications from other regions on elderberry production. No outreach efforts were in place in Missouri to promote this crop, nothing was available to guide Missouri growers in producing and marketing the crop, and little was known regarding the challenges that might face Missouri elderberry producers. However, a logic model analysis indicated potential for Missouri elderberry production and a growing market for elderberry products, which led us to develop the Missouri Elderberry Development Program.

The objectives of the outreach component of the Missouri Elderberry Development Program include the following:

- Promotion of elderberry as a viable alternative fruit crop for Missouri producers
- Development of ongoing cooperative activities with Missouri elderberry producers
- Development of outreach publications, based on research from the program and elsewhere, that focus on elderberry production, marketing, and challenges
- Support of the Missouri elderberry industry and individual producers through on-farm workshops and conferences
- Support of the elderberry industry by fostering the formation of a growers group, and providing ongoing advisement of this group

- Support of activities that build elderberry expertise among extension and research faculty
- Individual consultation with elderberry producers

### **Program Activities 2011-2014**

- Interviews with television, print, and radio media to publicize program activities
- Release and promotion of 3 new elderberry cultivars
- Publication of *Elderberry Market Research* (2011) and *Growing and Marketing Elderberries in Missouri* (2012)
- Development of a website
- Terry Durham Farm elderberry workshops/festivals (2)
- 2012 Comprehensive Elderberry Workshop
- 2012 Elderberry Panel, Small Farm Today Conference
- 2012 Elderberry Winemaking Workshop
- 2013 Farmers Forum, International Elderberry Symposium
- Presentations at the Great Plains Growers Conference, New England Vegetable and Fruit Conference (2011), Minnesota Fruit and Vegetable Growers Conference (2014), and NACAA Conference (2012)
- Presentations and outreach materials prepared to address Japanese beetle and spotted wing drosophila issues
- Formation of the Midwest Elderberry Growers Association (2011)
- 33 individual consultations with current and prospective elderberry producers

### **Teaching Methods**

Teaching methods include the following:

- media interviews and preparation of popular publications
- preparation and dissemination of extension outreach publications
- Collaboration with growers and growers groups
- On-farm workshops, tours, and festivals
- Organization of conferences and symposia for large groups
- Presentations at state and regional growers meetings
- Development of training opportunities for extension faculty

- Website development
- Individual consultation

## **Results 2011-2014**

- Higher visibility of elderberry production in Missouri among the public in general and present/potential producers in particular
- Improved understanding of elderberry production potential and challenges
- Planting of new elderberry acreage in Missouri and surrounding states, and expansion of existing plantings
- Widespread planting of cultivars developed and publicized through the program
- Widespread adoption of science-based production practices by Missouri elderberry producers
- Development of tools to benefit Missouri elderberry producers, such as *Elderberry Market Research*, *Growing and Marketing Elderberries in Missouri*, a website, and pest management guidelines
- Production of 4 conferences and workshops that impacted 307 attendees
- Dissemination of information developed in the program among a regional and national audience
- Development of ongoing cooperative relationships with individual elderberry producers
- Establishment of the Midwest Elderberry Growers Association
- 33 individual consultations with current and prospective elderberry producers
- 9 peer reviewed research publications were published or are in review; these publications describe research that is used to formulate elderberry production practices

## **Impact Statement**

The Missouri Elderberry Development Program research and outreach activities have led directly to a new industry of 150 plus acres of commercial elderberry production in Missouri and surrounding states at present, worth an estimated \$650,000 for the raw fruit alone. The majority of the elderberry acreage in Missouri is planted to cultivars selected and promoted by the Missouri Elderberry Development Program. Extension outreach programming through the Missouri

Elderberry Development Program in 2011-2014 has directly impacted an estimated 540 people at workshops and individual consultations. The publication *Growing and Marketing Elderberries in Missouri*, based on 15 years of research and experience, has had 2531 requests for the downloadable version since its publication in 2012.

## **Evaluation**

Evaluations are regularly conducted of activities in the Missouri Elderberry Development Program. As an example, at the 2012 Comprehensive Elderberry Workshop, the participants' level of knowledge before and after the workshop was evaluated in the post-workshop survey (n=70). A scale of 1 (nothing) to 5 (a lot) was used to assess the level of knowledge. The average level of knowledge gain across 10 topics was 1.74. After the workshop, participants were asked if interest in elderberry changed in any way. Selected responses include: "Plan to pursue an elderberry business. Initiate an action plan."; "Would love to become a commercial grower; plan and investigate NRCS funds."; "I've been stimulated to look into elderberry production"; "Haven't changed plans, but more motivated to spread the word in my area as an alternative crop."; "I am planning on farming 6 acres of elderberries." At a second event, the Farmers Forum at the 2013 International Elderberry Symposium, a survey was used to assess the level of knowledge both before and after the workshop related to 17 specific topics (n=46). A scale of 1 (nothing) to 5 (a lot) was used to assess the level of knowledge. Average topic knowledge before the workshop ranged between 1.1 and 2.3 on the 1-5 scale. After the workshop, the average knowledge ranged between 3.42 to 4.33 on the scale of 1-5, with each topic obtaining a gain in knowledge. Many respondents increased their interest in elderberry as a result of the workshop (75%). Most respondents plan to expand and pursue commercial production, to add or expand production of value added products, or plan to start elderberry production. Impact quotes included the following: "Expanding planting. Currently at 1/2 acres. Eventually 2-3 acres"; "Plant 4-5 acres plus process fruit"; "Continue to plant up to 12 acres"; "Continue with original plans but some changes based on info from this symposium"; "Improve product manufacturing & packaging & thinking about how to improve relations with growers in order to meet GAP requirements"; "Still high. Continue to expand our growing operation to 15 acres over the next 3 years."; "To eliminate some of my varieties in my plantation & re-plant with varieties I've learned of here."