



WASHINGTON STATE
UNIVERSITY
EXTENSION



IMPROVING LEAFY GREEN PRODUCTION FOR DIRECT- MARKET FARMERS IN WASHINGTON

BY THE NUMBERS

- Evaluated 9 different leafy green cultivars in the spring and 6 in the fall over two years at two locations.
- Evaluated 103 different single-parent lettuce lines for germination under cool conditions (5 °C).
- 3,000 pounds of leafy greens were sold into regional markets from farmers participating in trials in the spring of 2015.
- The project team delivered 7 presentations to statewide or national audiences and held 4 field days, resulting in direct exposure to 416 individuals.
- Information was shared with 1,200 producers through 2 newsletter articles.
- The website had 2,206 hits and 649 visitors as of July 1, 2015.

2016

ISSUE

Leafy greens are a high-value crop that can be produced year round in the mild maritime climate of the Pacific Northwest. Year-round production can improve cash flow throughout the year and is key to the economic stability for many small farmers. Maintaining continuity in sales year round is also crucial for sustaining relationships with consumers, distributors, and markets, and is fundamental to increasing sales and economies of scale for small-scale direct-market farmers. There is a strong societal, local, and regional demand for locally produced foods on a year-round basis. Access to local and regional markets currently is limited among farmers in northwest Washington by knowledge of production practices and competition from out-of-state producers.

RESPONSE

This project increased local production of leafy greens in western Washington and served as a model for other regions by investigating low-cost season extension production technologies, implementing variety trials to identify suitable leafy green varieties for each season for year-round production, identifying optimum harvest size for various produce niches (e.g., baby greens, braising mix, bunching), identifying optimal planting densities, showcasing cultural weed management options, and processing techniques for a safe food supply. Increasingly important to the production of fresh market produce is Good Agricultural Practices (GAPs) that require documentation of production steps to ensure food safety. This project coupled improved production techniques with training of small-scale fresh market producers on GAPs certification for leafy greens.

Our project addressed these issues by undertaking a multipronged approach to improve regional leafy greens production. First, screening of leafy green types and varieties occurred at WSU Mount Vernon Northwestern Washington Research and Extension Center and at Cloud Mountain Farm Center for spring and fall months over the course of two years. Nine common baby-leaf salad cultivars were examined in the spring and six in the fall for total and marketable weight, and for quality, pest pressure, and storability. Second, 103 different single-parent lines of cos (romaine) and leaf lettuce were assayed for germination under cool conditions to simulate spring planting. Third, pre- and post-plant bed flaming treatments were evaluated for the ability to suppress weeds and for injury to baby-leaf arugula. Fourth, interviews of producers, agricultural professionals, and food purchasers were performed to better understand market demands and expectations.



QUOTES

“We are re-thinking our production system based on what we learned and saw [demonstrated] today.”

“Utilizing the improved varieties and mechanical equipment demonstrated will save us a lot of the money we spend on labor.”

FUNDING

We are grateful to WSU Extension for providing funding for the project.

Lastly, Salanova™ lettuce cultivars (head lettuce cultivars grown for baby-leaf salad mix) were compared to traditional baby-leaf lettuce production. This project also integrated outreach materials and activities and on-farm evaluation of leafy green cultivars to improve dissemination to and adoption by regional and statewide producers.

IMPACTS

- Production costs were lowered by 47% through the identification of suitable cultivars and through implementation of mechanical seeding and harvesting.
- More than 106 farmers/agricultural professionals attended field days and approximately 286 attendees were present during presentations given at conferences. Results from field day post-surveys indicated a 93% increase in knowledge and 78% of respondents “likely” would incorporate ideas into their farming operations.
- Leafy green production has significantly increased as a result of this project. In Whatcom County, more than 3,000 pounds of leafy greens entered into four local grocery stores in the spring of 2015 alone, and an additional 15 markets (institutional entities, wholesalers) have been identified as potential outlets for regional producers.
- Additional funding was secured from the WSDA Specialty Crop Block Grant Program to leverage funding from WSU CAHNRS that included further on-farm testing, leafy green production evaluation, and weed management options.
- One WSU Extension production manual for baby-leaf salad green production and two peer-reviewed journal articles were published. Two articles were published in regional or statewide newsletters reaching an estimated 1,200 producers.
- We conducted 10 outreach events where we described results from the various field and lab evaluations. These included four field days and six presentations to statewide or national audiences.
- We developed a dedicated leafy greens website: <http://www.vegetables.wsu.edu/LeafyGreens.html>.
- This project supported one MS graduate student in the Department of Horticulture.

