



Empowering Socially Disadvantaged Farmers to Investigate Nitrogen Management in High-Value Vegetables Crops

Sustainable Agriculture Fact Sheet

August 2017

Crop: Kale and Cilantro

Need: Help socially disadvantaged farmers optimize nitrogen management

States: All Western states

Background: The Agriculture and Land-Based Training Association (ALBA) provides educational and business opportunities for farm workers and aspiring farmers to grow and sell crops grown on two organic farms in Monterey County, California. ALBA farmers were on track in 2013 to plant an estimated 100 acres of organic kale and cilantro. However, there was little guidance available regarding nitrogen (N) fertilization management practices for these crops, especially using organic farming methods.

The Problem: Because of this lack of guidance and the uncertainties regarding organic N fertility, farmers rely on good observation, on-farm experimentation, and their years of experience to optimize N fertilization. Simultaneously, due to concerns about nitrate contamination of water, farmers are facing increased accountability of total N applied.

The Research: Nathaniel Harkleroad, ALBA ag education program manager, developed this Western SARE project with the goal that ten socially-disadvantaged farmers would improve their capacity to frame, ask and answer questions related to their crop-production challenges. Specifically, these farmers would investigate improving N fertilization management for organic kale and cilantro crops by conducting basic on-farm research.

Harkleroad sought to educate 80 SDA farmers and agricultural professionals on conducting on-farm research and nutrient management, provide direct technical assistance to ten 'core' socially disadvantaged farmers on implementing an experimental design related to N fertilization for organic kale and cilantro, and provide informational materials to 500+ socially disadvantaged farmers and agricultural professionals to raise awareness.

The Impact: Nine 'core' socially disadvantaged farmers conducted field trials on N fertilization rates with kale and cilantro, with 100+ beginning and aspiring farmers and agricultural professionals receiving workshop trainings on performing basic on-farm research and specific techniques for better N management. Forty-nine SDA farmers and agricultural professionals have reported increased awareness of the training topics. Forty-eight reported that the trainings provided new knowledge; 46 that the trainings provide or modified attitudes and/or opinions. Furthermore, the participants reported that they would share information with at least 275 others.

The Challenges Ahead: Further trainings, workshops and field days are needed to further expand the network and awareness of ways to engage the socially disadvantaged farmer community in solving crop-production challenges.

Links: Overview: https://projects.sare.org/sare_project/ow13-062/

Project reports: <https://projects.sare.org/project-reports/ow13-062/>

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