

Innovative equipment solutions to reduce costs and improve productivity for small-scale fruit and vegetable growers

Abstract: An array of equipment is available to help fruit and vegetable growers with specialized production and processing tasks. This study examined ways for these small operators to share equipment and maximize their use of the shared implements.

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Sharing specialized equipment among farmers with similar crops and production operations will reduce the initial cost of the equipment and cut labor costs.



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What was done and why?

Smaller-scale growers face unique challenges for sharing machinery. Compared to row crop operations, fruit and vegetable growers rely on a greater diversity of equipment, such as small tractors, transplanters, bed shapers, plastic mulch layers, mulch removers, rotovators, potato and root crop diggers, etc. Sharing among growers typically will involve a greater number of producers who are geographically dispersed, making transportation and scheduling more complex. Finally, many specialty growers are new to agriculture and are not experienced equipment operators. They may lack the skills required to safely operate the shared machinery. This project addresses some of those issues through case studies of different groups that share different pieces of specialized machinery.

The objectives of this project were to:

1. Develop an innovative pilot project with groups of growers to evaluate and test possible models for sharing specialized equipment.
2. Prepare case studies and best practices for equipment-sharing based on the grower groups and present project information at field days, workshops, and conferences hosted by partner organizations.
3. Write and publish an extension publication on equipment-sharing for fruit and vegetable growers.

What did we learn?

Small-scale growers are interested in working cooperatively by sharing machinery and labor. This interest is shown in responses to a January 2012 survey of Midwestern fruit and vegetable growers: 70 percent of respondents said they would consider sharing machinery with other growers. Additional post-workshop surveys completed by producers in the winter of 2014 showed that 39 percent had shared machinery, while 85 percent said they are interested in sharing machinery.

Although a few of the farmers participating in this project previously shared equipment informally, this was their first attempt to share equipment on a formal basis with a written agreement. All groups are planning to continue operating under their equipment-sharing agreements in 2014 and beyond.