Transplant production decision tool for vegetable producers

Abstract: When local vegetable producers “scale up” their production to meet an increasing demand for local produce from institutional and retail purchasers, they face a number of investment challenges as they adopt appropriate systems and techniques. A key area of interest is how to manage transplant production as growers expand their operations.

What was done and why?
Appropriate transplant production systems can be an important element of a farm’s success. Understanding the interaction of different system elements can reduce overall investment and provide durable, flexible systems. A successful system requires components that mesh well and fit the needs of the operation.

The project objectives were to:
• develop a web-based Transplant Production Decision Tool that will be used by at least 20 Iowa vegetable growers in evaluating options as they consider expanding production in order to supply larger-volume markets, and
• summarize project results to at least 40 Iowa vegetable growers and educators of Iowa vegetable growers.

What did we learn?
Based on the raw data from individual farm profiles, the investigators amassed these findings. The type of operation inputs used will impact management and cell size required, but was not anticipated as a factor. Organic operations are not able to easily add additional fertilizer through irrigation systems in case of poor transplanting conditions, so larger cell sizes are required. Additionally, compost-based potting mixes used by organic producers weigh more than peat-based systems. As a result, germination shelves and other equipment must be suited to extra weight and larger cells.

Overall, farms appeared to have very efficient systems or very inefficient systems, with little middle ground. Components, regardless of cost or appearance, either fit together efficiently as a well-thought-out system, or every step of the process was inefficient.