

IMPROVING EFFICIENCY IN THE MARKET VEGETABLE FARM

Anne Schwartz, Blue Heron Farm, Rockport, WA

Many diverse vegetable farmers are finding the need to increase production to boost revenue and improve business efficiency. Sales at some direct marketing venues like farmers markets have leveled out, while at the same time there is growing demand for local produce and processed foods from institutions such as hospitals, schools and prisons. Opportunities exist to move larger quantities of crops, and many farms that started out with less than five acres have found it profitable to scale up to 10-50 acres or more. Any decision to increase capacity often requires a change in farming systems and equipment.

Here at Blue Heron Farm, we added a tractor mounted seeder and transplanter to speed things up for us. We borrowed an older strawberry transplanter from Ray deVries at Ralph's Greenhouse in Mount Vernon for our Brassica transplanting and found that it could also work with good solid lettuce starts and chard.

We use 72 cell trays for most of our transplants because we never know when the weather is going to interrupt ground preparation and transplanting. For machine planting, the cells need to be well-filled with roots so they hold together going through the transplanter. The starts also get too stressed out in smaller cell sizes.

We plant 12-25 flats of Brassicas every two weeks from February to July, transplanting when the seedlings are 5-6 weeks old. Two people sit on the transplanter with a tray of plants in front of them, each planting a row 24 inches away from the next, with transplants 16 inches apart in the row. These old transplanters are very adjustable if you have access to all the wheels that came with them, but 24 inches is about as far apart as this type can be adjusted. Sometimes we have one person following the machine to get the skips and firm in loose seedlings. But, in general, with three people—one driving and two sitting—we can plant two 300-foot rows in 15-20 minutes. We can finish 15-20 flats in an

hour and a half. After transplanting, we band in fertilizer (some feather meal) and water if rain isn't expected.

We have a few problems with the less vigorous cauliflowers because they are slower to reach transplant size than the other broccolis, cabbages and kohlrabies. Slower growers need to go in with the next planting or be done by hand because loosely filled cells with an immature root system tend to fall apart. The machine clamps the plant just about at the soil surface, so the soil block is hanging for a few seconds as the plants are placed in the clamp on their way into the ground.

Kohlrabies don't need such generous spacing so we've started doubling them up in seedling trays, and then interplant more kohlrabies in between the transplanted ones. As long as you have the fertility, everything grows really nicely. We cover all the transplants with Reemay immediately and remove it once for weeding and cultivating. This works fine until the frames of the plants get large and ready to harvest—insect free.

One refinement that we're using now is to plant the faster maturing crops, like broccoli, kohlrabi or faster cauliflower in the same bed as the slower growing varieties. This way, the Reemay can be pulled off the crop that is ready to harvest and be left in place over the other row planted to longer season cauliflower and cabbage. Our Reemay isn't wide enough to go over two rows of maturing cabbage. We remove it from the row when harvesting starts so we can stay on top of the variability of maturation within each variety.

We do a lot of transplanting to get a jump on weeds and have better control of the timing of harvest. Mechanizing as much of the planting and transplanting as possible really speeds things up and greatly reduces time spent on this less-than-popular task. ✕ Got ideas on scaling up and efficiencies? Send 'em our way: editor@tilthproducers.org

Point hitch mounted strawberry transplanter being used for transplanting two rows of Brassicas. Photo by Anne Schwartz



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