

Red Shirt Farm in Lanesborough

Jim Schultz

Jim Schultz is amazingly productive on his organic, no-till, 13-acre farm. Abundant vegetables grow on two acres while the rest is pasture for chickens, turkeys, and pigs. Since most Red Shirt Farm work is done by hand or with a walk-behind tractor, Jim is always interested in innovations promoting greater efficiency. And local farms like his have been gaining traction, often using new technologies for planting, growing, and fertilizing that are championed by farmers in Europe and Japan where land is limited. He has applied for and received Local Farmer Awards enabling creative solutions, savings in time and labor, and better worker morale.

Paperpot Transplanter System (2018) Make seeding go 10X faster

The **Paperpot Transplanter System** is an ingenious 3-part innovation from Japan: a gravity seeder, an origami-like Paperpot flat with holes for placing seeds, and a manual transplanter. The gravity seeder puts seeds in a custom tray and drops them neatly into the sections of the Paperpot, which are plugged with soil. The farmer walks backwards with the manual transplanter to create a furrow into which the seeds are automatically unraveled and buried. "It took some time to master the subtleties of the transplanter like making sure seeds land in the soil at the right depth," Jim explained, noting that the effort has definitely been worthwhile. Use of the Paperpot Transplanter System has reduced labor, increased speed, and improved the economic viability of crops such as onions, radishes, and beets.

Fertigation System - Combines fertilizing and irrigating to maximize production and profit (2024)

Previous systems were so laborious and time-consuming that it wasn't possible to meet the need to fertilize the tomatoes in three greenhouses on a near-weekly basis. The **Fertigation System** changed all that. It involves mixing water with fertilizer drawn from a small, well-engineered pump and applying this liquid fertility through a drip tape next to the plants, ensuring that water and nutrients are pumped out simultaneously. From a happy Jim Schultz: "Now we save so much time that we're able to do the necessary fertilizing every week."



Jim Schultz demonstrates the QLIPR Trellising System

QLIPR Trellising System - A game changer for growing greenhouse tomatoes (2023)

In Red Shirt Farm's three greenhouses, thousands of tomatoes are grown on tall trellises which once involved a time-consuming and laborious effort, requiring workers to constantly climb ladders to reach top-growing plants and unravel string while tying tomatoes to the trellis. With support from a Local Farmer Award, they were able to purchase the ingenious **QLIPR Trellising System**, consisting of rods with hooks on a line with adjustable clips. Workers regularly adjust the clips to gently put pressure on the rods and keep the plants low as they grow sideways along the trellis. Schultz said the money saved in labor costs by this purchase was invested in "wickets" that help keep the plants from problematic leaning. The outcomes are healthier plants, better harvest because of increased light, and improved airflow.

Commenting on the "big picture," Jim remarked: "On a small farm like ours, money is tight even in good times – so the help we've received from several Local Farmer Awards is really significant."