



Schmitt Family Farm

Using Conservation Practices to Improve Soil Health & Protect Water Quality

Phil Schmitt's family has been growing vegetables on Long Island for over 150 years, spending the last four decades on their 200-acre farm in Riverhead. Their soil is a sandy loam, a common type for Long Island's East End, but theirs is fairly heavy. This proved problematic as the farm grew. "The business was expanding and we were working the ground pretty hard, so we began to see the detrimental aspects of it," Phil explains. "So we started making some changes."

Phil's a practical farmer who takes his advice with a grain of salt. He does his research, and even admits to reading up on soil health on a family vacation. He then distills what he learns and does what's best for his operation. He uses a suite of conservation practices to bolster soil health including zone tilling, cover cropping, composting, crop rotations, integrated pest management and controlled release nitrogen fertilizer.

Since Phil grows a lot of vegetables and leafy greens for wholesale and his farm stand, having healthy, well-aerated soil matters. "The lettuce is

especially temperamental," he tells us. He first noticed problems in the growth of his crops from soil compaction, particularly during wet years. "It's a nice, level farm," he says. "But in really wet years we get a lot of flooding." These heavy rains can wash valuable nutrients away from his crops and delay fieldwork. Two things a farmer can't afford to lose.

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Phil can recall when his family farmed on smaller acreage and used to spread manure from neighboring duck and horse farms. Now instead of spreading manure, the Schmitt family spreads

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compost. "One of the things that really surprised me is that it's neutral, it raised the pH. So you're building health—you're getting nutrients and pH balance from it too," he says. He even bought a compost spreader and spent last winter trucking loads of compost to the farm. One of the biggest investments Phil has made in his soil health was purchasing his zone builder for reducing tillage, which causes less disturbance to the soil and leaves more plant material on the field.

But new equipment is expensive, so why did he choose to make such great investments? The answer has two parts—the decline he was seeing in his soil health and yields and the cost of renting land to let it rest. "If you're in an area where you can just run across the street and rent another hundred acres and let yours rest for a year or two and it's fairly inexpensive, that's different" Phil explains. "Land here is tight, and it's expensive." For Phil it

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makes sense to invest in conservation practices and equipment that contribute to the long-term health of his farm’s soil. Phil also has a family invested in its future. His wife Debbie manages their flower business and farm stand, and their son Matthew, the brains behind their ‘Holy Schmitt’s’ horseradish and pickled products, works full time on the farm and has a lot of interest in keeping it going.

Since Phil began testing his soil annually and using conservation practices he’s achieved a 1 percent increase in organic matter in under 10 years—which is actually an impressive growth as this boost in organic matter has amplified effects on the soil’s ability to hold nutrients and water. He also began to use controlled release nitrogen fertilizer (CRNF) on his sweet corn, which slowly releases nitrogen in response to the plant’s needs. While this fertilizer costs more upfront, it comes with time and fuel savings by eliminating the extra trips over the field. “We used to plow it, disc it three times, and then plant it, side dress and cultivate it,” Phil says. Now he goes over the field once with the zone builder, then applies CRNF and plants his fields in one trip. Phil estimates that the combination of reduced tillage and CRNF has cut down his hours of labor by 20 percent for growing sweet corn. While it’s hard to translate into dollars, in farming time can be just as valuable.

Phil believes it’s important for his farm to help protect the water that

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surrounds Long Island and flows from his own kitchen faucet. Conservation practices like reduced tillage, cover crops and CRNF help him to use less fertilizer and also improve his soil’s ability to hold on to nutrients and keep them out of groundwater and surface water bodies, like Long Island Sound or the Peconic Estuary. Prompted for advice for other farmers considering conservation practices, he keeps it simple. “Advice for getting started? Well, they should get started!” Phil says with a laugh.

But he elaborates that the practices will depend on what they’re growing. “There’s definitely a learning curve,” he cautions. This is especially true when farmers used to a bare, conventionally tilled field switch to reduced tillage and have to acclimate to seeing the stubble. But if conservation practices are given a chance, they prove their worth.

For Phil, his best results have been achieved with a combination of practices. “The zone tilling of the corn will help the lettuce next year, and if I add compost and let the rye grow up big before I take it down, it adds a bit more.” It takes a bit of patience and

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trust, but when conservation practices are successfully implemented, they create a chain of positive outcomes for the farmer, the land and the water that surrounds them.



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