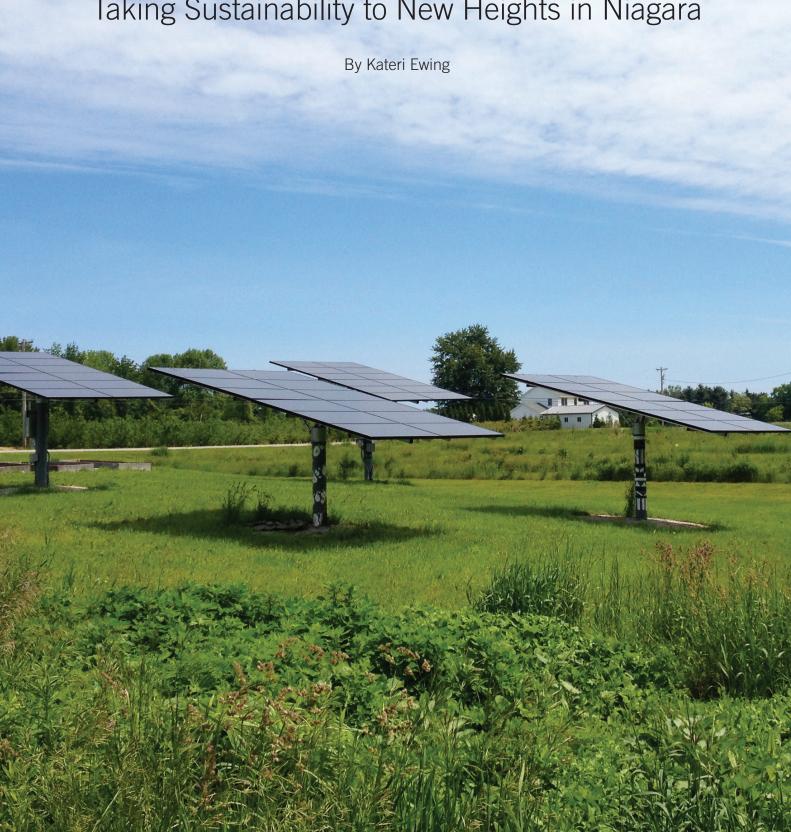
## Singer Farm Naturals:

Taking Sustainability to New Heights in Niagara



s far as we know, no one has plans to own the sun; it gives its bright warmth freely to all. Two Western New Yorkers are partnering with the fiery star to power their twenty-two-acre farm in Appleton. Tom and Vivianne Szulist didn't stop at the sun's gifts though. They also harness wind and employ a clean-burning wood boiler. Here, environmental watchdog organizations, like the Clean Air Coalition, continually bring issues like these to the forefront of discussions. Green businesses have also popped up, like Blue Sky Design Supply, a design firm that specializes in eco-friendly products that opened in 2010.

Not far from the Niagara Escarpment, the Szulists have set up field and shop on a parcel of Vivianne's family land. The 400-acre Singer Farm has always grown predominantly orchard fruits and was first purchased in 1915 by her great-grandfather Roland Singer, passed on to her grandfather Harold Singer, and then in the 90s became a joint venture between farmer Jim Bittner and Vivianne's father, businessman Tom Singer. Singer Farm Naturals had its inception in 2005 when Vivianne moved back to Western New York from the U.K, after leaving her career in graphics and special effects for film and TV. When she met stockbroker Tom Szulist in 2006, they became inseparable, were married the following year and lured back to the family land to begin their dream. They purchased twenty-two acres of land from Viv's dad, including an old barn that was no longer in use; Singer Farm Naturals was born in 2009.

"One thing Tom and I were both passionate about was expressing ourselves in terms of looking after the environment," said Vivianne. "That meant that everything we would build would be done in a sustainable way." Tom furthered that idea, "When we decided to do this, our thesis was that we wanted to do things that would make a statement that everybody could do this." It is obvious when talking with the couple that their passion is sown not only in their fields, but in sharing their experiences and knowledge with others. "We really want to teach people how to do this," Tom said. "It's not rocket science. It's so doable." The Heritage Barn retail space was created out of that desire to be sustainable and green. The Szulists met up with straw-bale construction expert Dave Lanfear who introduced them to the green architectural firm eco\_logic STUDIO and along with help from Vince Kuntz of Alliance Builders they were off and running. "We took an old barn, put an insulated foundation (ICFs) around it, built straw bale walls and then contained the roof with structurally insulated panel boards, or SIPs," Vivianne explained. SIPs consist of an insulating foam core sandwiched between two structural facings called typically oriented strand board (OSB). The result is a building system that is energy efficient and strong. They also used recycled materials to restore the inside of the barn, including green oak from an Amish mill just down the road. When you approach the building you see a plain-Jane hemlock sided barn, but when you enter you



It was love at first touch of the tongue. When I had my first sip of Singer Farm Naturals Tart Cherry Juice all I could say is WOW. It's like a whole cherry pie zipping around your mouth, but brighter, cleaner. Not only deliciously zingy, Tart Cherries have extraordinary health benefits. Research indicates Tart Cherry consumption can boost immunity, support healthy joint function, and can improve overall cardiovascular

The bright-colored skin of a tart cherry contains Anthocyanins, found beneficial for a range of inflammatory-related conditions, including arthritis and have important heart-health benefits related to reducing inflammation, total cholesterol, and belly fat.

Dilute it with water, sparkling water, champagne, or sip it straight. It would make a dreamy drizzle over vanilla ice cream, too. I think the possibilities are endless.

You can purchase Tart Cherry Juice at Singer Farm Naturals Heritage Barn, or through their web site, www.singerfarmnaturals.com. You can also find them at several local farmers markets. Follow them on Facebook for the most up to date locations, dates and times.

Tom & Vivianne Szulist

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experience this stunning space that has preserved the old barn's former life. It is a true testament to the couple's mission to keep things sustainable and green.

The real beauty of the Szulist's efforts lies in their commitment to green energy. "The first thing to decide was what we could do for our electrical power," said Tom. He calculated that he would need a 10,000 kilowatt per year system. They teamed up with Solar Liberty in 2010 and installed four pole-mounted solar panels behind the

With green electricity pulsing through the barn, the next question was how to heat it. When restoring the structure they ran radiant heat tubing under the floors and decided a high-efficiency wood boiler would fuel them. They chose a high-efficiency wood boiler from Austria that produces heat by something called wood gassification. When you burn wood at 2000 degrees instead of the normal 300-500 you release about 90% of the energy as opposed to about 25-30%, have almost no pollution or creosote and very little waste. The ash is used to enrich the garden soil.

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barn. Why pole-mounted and not on the roof? You can maximize power by being able to tilt the panels throughout the seasons as the sun changes position. The cost of this system today? \$38,000 for the 10kw system, minus a \$15,000 grant from NYSERDA, a 30% federal grant and a USDA grant for 25%, for a total cost of around \$11,600. The Szulist's system actually produces 12,500kwh per year, which adds up to a savings of \$1,875 from not relying on fossil fuel energy sources.

This system produces so much energy that they can't use it all, so they store it in a 1000 gallon tank, which is 800,000 BTUs of finished energy—a pretty tight system.

Next up was the installation of a wind turbine to produce electricity for their garlic drying barn, future studio space and homestead. As the highest-ticket item, it cost \$82,000, but after grants ended up being \$16,000 out of pocket and will provide energy for about twenty-five years.



Once the heating and electricity projects were complete, they still needed domestic hot water. Solar thermal collects the sun's heat and converts it into an endless supply of hot H2O. The Szulists chose an evacuated tube system, which is best for use in a cold climate, and creates 170-180 degree water that is stored in a water tank at 150 degrees. The excess energy is pulled out and stored in the same tank that the wood boiler uses, to employ at any time. You get the picture pretty quick; they are harnessing a whole bunch of energy. In the dead of winter it cranks out the hottest water and the excess energy provides supplemental heating. Tom says payback on solar thermal is the quickest from all the systems. After grants, the solar thermal system cost \$5,849.

While it may seem like an overwhelming task to use green energy in our own homes and businesses, Tom and Vivianne have shown us that it can be done. There are so many resources available for funding through government, NYSERDA and USDA grants that it can be a way to actually save money in the future. And people like the Szulists are anxious to share their experience and knowledge with anyone who inquires. "We really want to teach people how to do this," Tom said. "Solar thermal is the most efficient and direct way to convert the sun's energy into hot water without putting carbon into the air. We've got all this energy, and we're not polluting. It may seem overwhelming until you realize that you're just using what's here, but thinking about it differently." He also praises how green energy changes the way you go about life. "It makes you work more in harmony with nature. If we have a lot of washing to do and it's a rainy day, we tend to put it off until a sunnier day. We get a lot of work done on sunny days when we're likely to have more energy ourselves. We find we're more attuned to our environment, with the natural rhythm of doing things when it's sunny and having more down time when it's not. But even on a cloudy day, we're producing electricity."

Kateri Ewing lives in East Aurora at Four Cat Farm. Her felines take an avid interest in all of her creative endeavors; their specialties are rearranging her papers and walking across wet paintings.

