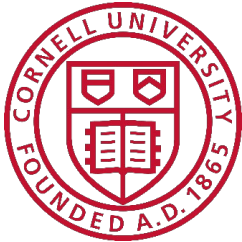


Cornell Cooperative Extension | Erie County

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*This article is the seventh in a series focusing on vendors who are selling their wares at the Western New York Welcome Center's **Taste NY Market**. Thank you to Jim Bittner, President and General Manager of Bittner Singer Orchards, for taking the time to share the farm's story along with some marketing tips and strategies. Thank you also to Margo Sue Bittner for volunteering to narrate the video slide show version of this spotlight.*

Spotlight on Bittner Singer Orchards

Bittner Singer Orchards is located along the southern shoreline of Lake Ontario in the Town of Newfane in northern Niagara County. The orchards are about 30 miles northeast of downtown Niagara Falls and 45 miles northeast of downtown Buffalo. Rochester is approximately 60 miles to the east. On a clear day, you can see Toronto to the northwest from the Lake Ontario shoreline.

The combination of good soils and close proximity to Lake Ontario, with its localized weather moderating impacts, has made the Lake Ontario Fruit Belt in New York State one of the finest tree fruit producing areas in the Northeast. Bittner Singer Orchards takes full advantage of the climate, soils, and markets with its diverse production of a wide variety of apples, pears, quinces, and "stone fruits" including peaches, nectarines, apricots, sweet and tart cherries, plums and prunes. Jim has recently established a block of seedless grapes he expects to do well in the production and marketing mix.

Bittner Singer Orchards began in 1912 when Roland Singer purchased the first part of the farm to raise dairy and beef cattle and to grow fruit. The cows were phased out over the years in favor of fruit production as the farm passed along to Harold and Grace Singer and then to their son and daughter-in-law, Thomas and Jacqueline Singer. The operation was managed by Peter Betzler from the 1960s until 1990. This history is outlined on the farm's web page:

www.bittnersingerorchards.com.

Jim and I are both graduates of Cornell University: Jim from the College of Agriculture and Life Sciences, and my degree is from the New York State School of Industrial and Labor Relations.

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Forty years ago, Jim and I began dairy farming under the name, Marjim Dairy – “Marjim” being a blending of our first names. Jim and Frederick H. Atwater operated Retawta Farms, an 80 cow award-winning dairy. In 1991, Jim changed paths to become the managing partner of Singer Farms. Since that time the Singer and Bittner families have owned and operated the 400 acre farm with the business name changing to Bittner Singer Orchards. Our sons, Kevin and David, are now part of Bittner Singer Orchards while our daughter, Janet, assists me with our associated enterprise, The Winery at Marjim Manor (www.marjimmanor.com).

Along with family members, Bittner Singer Orchards has a highly trained and motivated team of approximately 10 year-round associates. Additional labor is brought in during peak periods. This includes some migrant labor using H-2A Temporary Agricultural Worker visas. The COVID-19 pandemic is creating some complications and the farm has added many precautions following all available guidelines. This includes a 14-day separation and quarantine of newly arriving workers before they can interact with other farm personnel or customers. Jim thinks additional local labor will also be available this season because of current unemployment rates in the region.

While it's the production side of the business that really motivates Jim, marketing considerations still drive most of the management decisions. Jim said, “We're able to grow far more fruit than we can sell.” Long ago, the Singers phased out the livestock portion of their enterprise when it didn't make economic sense to continue with the dairy and beef. Bringing cherries orchards have been removed and replanted with processing peaches and sweet cherries. Tart cherries raised for preserves and cooking purposes are now largely being processed for tart cherry juice concentrate, much of which is sold through a strategic alliance with Singer Farm Naturals, operated by Tom Szulist and his wife Vivian (Singer) Szulist, one of Tom and Jacqueline Singer's daughters.

Jim explained that he and his team nearly ripped out a brand new peach tree block because he's not sure he'll have a market for the crop. But he's going to give it another try for year or two, investing labor and resources into pruning and shaping the trees and bringing the stand into production. Along the way, market forces, including the loss of processing facilities, adjustments to the distribution system, and changing consumer tastes, preferences, and shopping habits resulted in a shift from processing apples to fresh market apples. Customers have requested more variety of fresh fruits leading to the planting of apricots, Japanese plums and other specialty tree fruits and cultivars. The U-Pick cherry orchard opened in 1999 and remains a popular part of the business with 100 different varieties of cherries, both to provide options for customers and to spread out the harvest with different varieties ripening over the length of the short U-Pick season.

In 1992, the only tart cherry pitting facility in Niagara County opened. Bittner Singer Orchards was one of the founding members of the “Western New York Cherry Producers.” This

cooperative pitted tart cherries from six Niagara County growers. Most of the cherries were sold to pie companies. However, people don't make cherry pies much anymore. With the changing market, the grower members have decided to close the coop, so new markets must be found for the fruit. Some may be diverted to fresh market sales, to juice concentrates, to distilleries, breweries and wineries, or to other outlets but that has its limitations, Jim explained. With changes in consumer preferences (people don't make cherry pies much anymore), with the loss of local processors, and with just a few tart cherry growers left, Jim is thinking of shutting down the Western New York Cherry Growers Association. He said it's not practical for growers to ship produce to Michigan, let alone farther west, for processing. The market doesn't support the higher prices needed to cover the extra transportation and processing costs, particularly considering competition from other parts of the United States and from around the world. That could mean pulling out highly productive orchard blocks to switch in fruits that would have a better chance of making a profit.

Jim said "I'm always looking for those markets; those niches," like the growing use of tart cherry juice concentrates in distilleries, breweries and wineries. Still, the sales have to involve enough volume to make it worthwhile. A number of area brewers, including New York Beer Project and Southern Tier Brewing, are making versions of cherry blonde, cherry wheat, cherry sour and other ales, stouts, weisse, and krieg beers.

Bittner Singer Orchards' organic production is in direct response to consumer demands. While the farm has always made every effort to limit pesticide applications and to use integrated pest management techniques and other best management strategies, it has also been important to demonstrate that well-tuned organic production techniques can produce a crop that consumers will appreciate, especially with expectations for blemish and defect-free fruit.

GAP is an acronym for good agricultural practices. North American, European and Global certification standards have been developed and many distributors, processors, wholesale and retail markets expect certification and compliance, whether farms are following organic production practices or not. New York State has its own New York Grown and Certified Program. While these best management practice initiatives and others including Organic Certification are all compatible with Bittner Singer Orchards' production and sustainability goals, they all take planning, documentation and reporting time. They greatly impact our marketing plans. Best management practices and environmental stewardship have recently been enhanced with the addition of controlled access agricultural chemical mixing facilities and covered fuel storage with spill containment to further reduce the risk of environmental contamination. USDA Natural Resources Conservation Service Environmental Quality Incentives Program (EQIP) funding helped with the construction of the newest agricultural chemical mixing facility. The covered, fuel containment facility had funding assistance through the New York Grown and Certified Program.

These certification and marketing standards also influence everything from cultivar selection to planting densities and pruning techniques. Higher density plantings require irrigation, especially to get plantings established. That is something that wasn't typically necessary for more widely spaced, older style plantings with larger trees and more robust rootstock. The newer orchards, over 100 acres, all have drip irrigation tubing in the rows to supplement rainfall. Some cultivars are fragile enough that they will not even produce a marketable crop without a good rain at least once a week. Reasonably priced municipal water has proven to be a cost-effective source of irrigation water, eliminating the need for expensive pumping and filtration plants, water storage ponds, and permitting for direct withdrawals from streams or directly from Lake Ontario.

In order to reduce disease problems and meadow vole (field mouse) damage, the tree rows are all kept clear of vegetation, trimmings and drops. Sod in the aisle is mowed regularly, again to reduce vole habitat. Shorter grass allows hawks, foxes, and other predators to help manage the vole population. Herbicides are not an option in the organic plantings so various mulching and light cultivation strategies are used. This all is factored into the pricing of both conventional and organic crops. Where mulch is used, tree guards are required to minimize meadow vole damage.

Pruning and thinning are critical to profitable, high quality fruit production. Pruning establishes the optimal tree architecture for peak production, ease of harvest for the cultivar, and stand style, generally as east-west Vs. In most blocks, branches that would be beyond the reach of the pickers or which would break under the weight of a fruit crop are trimmed out. Many fruiting branches are also removed seasonally so that remaining branches will produce good sized fruit. Trimmings are generally chopped into the aisles. In most stands, blossoms are thinned and embryonic fruit is removed shortly after the fruit set. Otherwise the trees will produce far too many, smaller, low quality fruit. A German-manufactured implement, the "Darwin string thinner," is used to mechanically remove excess blossoms in some of our stone-fruit plantings. This has helped reduce how much time is spent thinning young fruit after fruit-set. Jim said, "You have to figure I only want 20% of those flowers to produce fruit to harvest."

In addition to the human workforce, Bittner Singer Orchards "employs" several million bees. For pollination purposes, the orchard supplements native pollinators and local honey bees with purchased and rented bumblebee and honeybee colonies. Jim explained, the honeybees are not active enough early in the fruit pollination season when the temperatures are cool and skies are often overcast. That's where the bumblebees come in. Bittner Singer Orchards buys containers of commercially-raised worker bumblebees and moves them around through the orchards as the trees begin to blossom. The bumblebees are a native species, *Bombus impatiens*, the common Eastern bumblebee. The current commercial rearing technology comes

from Holland, to raise worker bumblebees primarily for use in greenhouses. They have more recently become popular for use in orchards, especially in cooler climates.

Honeybee hives arrived by tractor trailer from Florida on May 3rd. Hives are deployed throughout the orchards for pollination purposes before these migrant insect workers are collected once again and trucked to Maine to pollinate blueberries. That is a story in itself.

Jim said as older, more traditional style orchard plantings are removed and replanted, close attention is paid to species and cultivar characteristics for the new plantings. This includes the quality and marketability of the crop along with the species' and varieties' innate blossoming, fruit-set and crop maturation timelines. One goal is to be able to move equipment and crews sequentially through the blocks from one side to the other as the production and harvest cycle plays out over the growing and harvest season.

With the exception of tart cherries, all fruit is harvested by hand. While it complicates the marketing, the many fruit varieties and cultivars ripening at different times allow the harvest season to be spread out. That may not be as efficient as having just a couple of fruit species that can be harvested by a large crew over a short period, but, especially for the tender stone fruit, this gives the crews time to harvest at peak flavor and quality for our fresh market sales. Unlike apples, the fresh, tender stone fruit cannot be stored for long periods. The diversity helps distribute the workload and meet consumer quantity and quality demands.

Tart cherries are harvested at peak ripeness using a commercial tree shaker/conveyor that gently but firmly shakes each individual tree, causing cherries to drop onto a canvas mat that catches the fruit, sends it to a conveyor belts and into the collection and transport crates. With the loss of the only remaining regional pitting plant, nearly all of the 2020 tart cherry crop will be trucked to the Growers' Co-op, Inc. processing facility in Westfield, New York to produce tart cherry juice concentrate. While wineries, breweries, and distilleries in the area can use some of the tart cherry juice, that's still a relatively small market channel. The future of tart cherry production in the Lake Ontario Fruit Belt at the current scale is uncertain.

Bittner Singer Orchard's U-Pick dwarf cherry orchard is one of the largest in the region. Throughout the month of July sweet and tart cherries can be picked from the ground, without ladders (which isn't allowed for insurance and liability reasons). If you are interested in U-Pick cherries, Bittner Singer Orchards suggests you "like" the business on Facebook and/or sign up on the web page to receive a newsletter through your e-mail. As with the rest of the operation, Bittner Singer Orchards will be operating the U-Pick business following COVID-19 physical distancing and other established risk minimizing protocols.

Fruit is not the only "crop" from Bittner Singer Orchards. Larger branch trimmings and culled trees are collected and sold for firewood or for processing into chips for smoking meats and

adding flavoring to barbeque. Jim has found that specialty chefs are often looking for the unique smoke flavor profiles that can be added through fruit chips, both green and dried. Jim said, “In the year we pull out a stand, we can make more off an older fruit tree stand from the wood than from the fruit crop itself.”

In addition to the Taste NY Markets, Bittner Singer Orchard products can be found at the farm’s own market, at the Clinton Bailey Farmers Market, and at Singer Farm Natural’s “Legacy Barn Market” just to the east on Lake Road. Bittner Singer Orchards exclusively supplies the peaches for peach shortcake at the annual Kiwanis Niagara County Peach Festival in Lewiston. We’re hopeful that the 63rd annual festival will be able to take place this year with the festival scheduled for September 10th to 13th, 2020. Bittner Singer Orchards is working to get more fresh fruit into schools through local farm-to-school initiatives. Dash’s Market is the only large, local supermarket that switches exclusively to local peaches in season. Otherwise, local peaches are still competing with produce from California and other areas. Joe’s Farm Market on Main Street in Clarence and Braymiller Market in Hamburg are other important local wholesale markets for Bittner Singer Orchards fresh fruit.

Bittner Singer Orchards fruit is used in DiCamillo Bakery’s canned peaches and in a number of the fruit wines produced and sold through the Winery at Marjim Manor and other regional wineries. Wholesale products are also available directly through Bittner Singer Orchards cold storage facility at 5306 West Lake Road in Burt, New York or seasonally out of temporary storage at the orchard’s base facilities at 6620 Lake Road in Appleton. Tart cherry juice concentrate is sold in 16 oz. and 32 oz. containers by Singer Farm Naturals. Wholesale, 50 gallon drums of tart cherry juice are available directly through Bittner Singer Orchard.

The orchard maintains a fleet of straight trucks (also known as box vans or box trucks) for moving products to and from cold storage and to processors and markets. Grocery stores expect trucks to be able to pull up to loading docks so pickup truck delivery is not usually an option, even for smaller orders. Many regional Community Supported Agriculture (CSA) operations, including Root Down CSA and Native Offerings CSA, supplement their own vegetable and fruit production with fruit from Bittner Singer Orchards. Three CSAs in Ithaca receive weekly shipments during harvest season.

Wholesale fruit is sold through three area packers: Sun Orchards, Niagara Fresh, and H.H. Dobbins. Jim said, “It’s fortunate to have the option of a number of local packers since fruit can be transported without the need for tractor trailers.” Bulk organic apples are marketed primarily through Mott’s. While much of the Mott’s organic fruit comes from other areas including the West Coast, the high acid organic apples grown in Western New York are needed to blend in for the organic apple sauce production line. Organic apples even ship in specially labeled bins. Bittner Singer Orchards harvests approximately 120,000 bushels of apples and

needs to be able to move that volume directly through packers and larger wholesalers. Most of the stone fruits are also sold wholesale.

The Bittner Singer cold storage facility is used both for Bittner Singer products and by other area growers. As the web page says, *“Bittner Singer Orchards would like to be your reliable, season-long supplier of fruits including sweet cherries, peaches, apricots and plums. In addition to the seasonal fresh fruit, we sell a variety of frozen products year round. We guarantee customer satisfaction!”*

The Bittner Singer Orchard web page includes a handy charts showing fruit varieties, harvest dates, and how products are sold (in bins, lugs, crates, baskets, boxes, etc.). Of course, Mother Nature has a say in harvest dates. It’s best to call ahead, especially if you are after specific varieties, or fruits like quince and apricots.

Another unique part of the Bittner Singer Orchards story is that the property includes the first voluntarily established and donated, permanent conservation easement in Western New York covering a part of a working orchard. The easement also includes a block of unmanaged woods and a long stretch of undeveloped Lake Ontario shoreline. The easement was established by Tom and Jacqueline Singer and is held and monitored by the Western New York Land Conservancy.

I mentioned that our daughter, Janet, and I run The Winery at Marjim Manor. We specialize in fruit wines with much of the fruit coming from Bittner Singer Orchards. The winery is based in the historic former “Appleton Hall.” Janet and I run the winery. Jim and our sons manage the orchard. The Winery at Marjim Manor is open for business following social distancing guidelines. When allowed, we will host small group tastings of our award-winning wines and share our ghost story. You can read more about our history, products, sales and curbside pickup, home delivery, or shipping options on our web page: www.marjimmanor.com.

While the orchard certainly keeps him busy, Jim is highly engaged in the community including involvement in scouting, Niagara County and New York Farm Bureau, the Barker Lions Club, the Niagara County Soil & Water Conservation District, Cornell Cooperative Extension of Niagara County, and many other organizations. Jim is a member of the Dean’s Advisory Committee of the Cornell College of Agriculture and Life Sciences. He was the Chairperson of the Farm Viability Institute and the Council for Agricultural Organizations among other agricultural advisory groups. These activities have led to many awards over the years (see the farm’s web page for details). This is all while helping to raise a family and manage one of the region’s largest, most diverse fruit farms and making locally raised fruit and fruit products available to consumers throughout Western New York.

Thank you, Margo, for adding your voice to this spotlight on behalf of Bittner Singer Orchards and thanks again to Jim Bittner for taking time to explain the Bittner Singer Orchards operation,

to discuss evolving marketing strategies, and to show me around the orchards and facilities. Thanks also to Bittner Singer Orchards and to Cornell Cooperative Extension Western New York Berry Specialist, Esther Kibbe, for providing additional photographs to cover more of the production and harvest season. We hope you enjoy this story and accompanying photographs and that you have an opportunity to visit the Bittner Singer Orchards web page for more details; that's www.bittnersingerorchards.com. Of course, we also hope you will enjoy fresh fruit and other products from Bittner Singer Orchards and other local growers this season and beyond. Stay safe and be well



Taste NY at the Western New York
Welcome Center is operated by:

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Taste NY Market at the Western NY Welcome Center

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