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Elderberries at Natura Farms Scandia, Minnesota

About the Farm

Natura Farms began as a 57-acre teaching farm for a private school, educating students on growing healthy fruits and vegetables, as well as personal responsibility. Over time the operation grew and in 1983 North Star Gardens and Nursery was opened. North Star supplied berry growers with plants, equipment, and timely articles relevant to berry production from the Rockies to New England until it ceased in 1996. Since 2006, the farm has focused on berries and offers berries through a pick-your-own operation, as well as through on-farm retail, farmers markets, and sales to local coops.

Natura Farms is located on White Rock Lake in Scandia, Minnesota, north of St. Paul. Paul Otten, the manager of Natura Farms, was born in Brazil and spent much of his childhood there. He still vividly remembers exploring the jungle as a ten year old and finding native and wild fruits and berries. He liked them so much he eventually started digging up the berry plants and replanting them in his yard, much to the dismay of his mother. "She was not so enthusiastic," Paul said. The farm he grew up on was one of the first in Brazil to try soybeans as a "new" crop in the 1940s.

Paul came to the United States in 1948 and witnessed the transition of agriculture from small holder farms to larger and larger operations. Decades later, Paul found himself in the northern suburbs of St. Paul, Minnesota, as the horticulture director for a private school. He convinced the school's board of directors to allow him to launch a working farm to teach students about farming and growing fresh high quality food. Paul taught students the importance of soil health and the connection to human health as they grew a wide range of fruits and vegetables.

Paul shows how high elderberries can grow.





Paul Otten inspects an elderberry cutting for rooting

Farm Management Practices

Growing elderberries in the north is different from growing elderberries in southern Iowa or Missouri. The first challenge is determining what varieties are the best for a colder climate. Paul is experimenting with several different elderberry cultivars, including Adams, Bob Gordon, Wyldewood, Ranch, and Johns. He also is experimenting with different spacing within rows, with either two feet or four feet between plants. Rows are spaced ten feet apart. Paul explains, "I want to learn as much about these berries as all the other berries I've ever grown so that I can provide useful information to new growers."

Eventually, the farm and school became widely known for growing high quality berries, including raspberries, blackberries, currants, gooseberries, and juneberries. A side business, North Star Gardens, began offering plants and equipment to berry growers throughout the

Midwest and beyond. Paul left the farm in the mid-1990s and North Star Gardens dissolved; however, when Paul retired in 2006, he returned to farming and decided to focus on elderberries, a berry he is familiar with but had not grown previously.

Paul has two different plantings of elderberries. The first was established in 2011 in raised beds, whereas the second is a research planting of several different cultivars established in 2013 to gather data on production practices. The sites Paul chose have plenty of moisture and are moderately well drained.

This production planting of four different varieties of elderberries is only one year old.





Minimizing weed competition is especially important for commercial production, so weeds are kept in check with either black plastic or mulch. Paul also mows between rows.

Few pests are reported for elderberries and Paul has no complaints so far; however, as a new crop it is possible that issues have not materialized because so few elderberries are grown commercially. Pests that other growers in Missouri and elsewhere deal with include Japanese beetles, spotted wing drosophila, and elder borers. Deer and birds can also be a problem depending on location and pressure.

Marketing & Economics

Elderberries are typically processed into value-added products, with the most common being juices, jellies, and wine. Similar to aronia berries,

elderberries have a unique anti-oxidant profile with lots of health benefits, but unlike aronia berries, elderberries can be eaten fresh or frozen, making them a candidate for pick-your-own operations.

At Natura Farms, the 2013 harvest was only approximately 40 gallons. Most of the berries went towards product development and to a local winemaker who has won awards for his elderberry wine. Berries are picked when they all turn a dark purple color; to ease harvest, the entire cyme, or berry cluster, is harvested and frozen, making it easier to de-stem the berries.

Paul plans to market through Natura Farms as well as through River Hills Harvest, a cooperative of growers that buys berries for processing into a River Hills Harvest branded line of products. Paul is also a member of the Minnesota Elderberry Cooperative, which completed a feasibility study in 2013 that showed a favorable environment for expanding elderberry production.

Prices paid for berries range from \$0.50 per pound for berries attached to the cyme to \$1.25 per pound for cleaned and frozen berries used for processing and up to \$5 per pound for retail sales or to wine and supplement manufacturers.

“Starting small and learning as you go is a good way to gain experience and to prevent over-committing to a new endeavor.”

Elderberry varieties grown at Natura Farms

- Adams
- Bob Gordon
- Wyldewood
- Johns
- Ranch

Goals of the Farm

- Build healthy soil through holistic practices
- Teach others about human nutrition
- Sell high quality plants and berries



Agroforestry on the Farm: Elderberries

Because it takes two to three years for production, Paul supplements his income by selling plant plugs to new growers. Pruned cuttings are grown in the greenhouse and allow for new growers to get quicker growth than planting dormant stem cuttings. Paul sells these plugs for \$1.00 each.

Lessons Learned

Paul has several suggestions for new growers looking to get started. His first piece of advice is to not bite off more than you can chew. Since this is such a new crop to grow commercially, there is a lot to learn in order to be successful. For instance, yields in northern climates might not be as great as in Missouri. Disease issues that have not shown up yet could ruin a crop down the road. Starting small and learning as you go is a good way to gain experience and to prevent over-committing to a new endeavor.



Four Elderberry varieties are grown at Nutura Farms.

Although Paul advises moderation in getting started, he also encourages potential growers not to wait for all the kinks to be worked out. "We can benefit by learning from each other, especially as we have growers spread out all over the Midwest," he said. "To that end, I plan on hosting a learning field day every year to educate new growers and the public about elderberries."

A motivating factor for Paul's enthusiasm with this crop is the health benefits associated with elderberry juice and products. The anti-oxidants can help with inflammation and have been shown to offer relief for a host of other ailments ranging from arthritis to heart disease. "Berries in general are healthy for us and the elderberries are packed with all sorts of good things for the body," Paul said.



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