

Investigating the commercial viability of growing organic black currants in the Northeast
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Farm Profile

The Farm Between is a certified organic diversified small farm. We raise mixed vegetables, blueberries, black currants, herbs, cut flowers, hay, piglets, meat chickens and draft horses on 18 acres. We direct market most of our products through a CSA and local farmers' market. We wholesale our black currants to a local winery.

Participants

Our main cooperator was David Boyden of Boyden Valley Winery. He developed a black currant wine from our fruit and is now our main wholesale market. We didn't run into any problems where we needed help from our technical advisor.

Project Goals

- 1) Determine if black currants can be grown successfully with organic production methods in this climate
- 2) Test three varieties for yield, flavor and quality of processed products
- 3) Observe potential pest problems
- 4) Develop the information, experience and marketing information to put in a successful larger scale planting

Project Activities

Three varieties of black currants (Titania, Ben Sarek, and Ben Lomond) were planted in a randomized complete block design in 2002. Twelve plants made up an experimental unit. The bushes were planted in rows on 8 foot centers 42 inches apart into a field of overwintered rye and hairy vetch that was mowed and tilled under. The area between the rows was kept rototilled during the summers and planted to oats/spelt every year in the early fall. Plants were mulched with composted manure. Bushes were pruned in the winters of 2004 and 2005.

Results

Yields

In 2002, Titania bore a small amount of fruit.

In 2003, Titania bore approximately 1 pint/bush (<0.5 lb)

In 2004 and 2005 all varieties bore fruit and yields were measured by harvesting all the fruit from the 12 plants in each plot. Results were reported in pounds of fruit/plant.

Variety	2004 Yield (lbs/plant)	2005 Yield (lbs/plant)
Titania	2.5 a	4.7
Ben Sarek	1.8 ab	2.2
Ben Lomond	1.2 bc	0.9

2004 means followed by different letters are significantly different (90% confidence limits). No statistical analysis was run on 2005 results because different replicates of Titania were inadvertently mixed together at harvest. Varieties were kept separate and we were able to determine average yields for each variety.

Survivorship

All except one plant survived from planting through 2005. There was no evidence of winter damage even though the winters of 2003 and 2004 had temperatures of -30F.

Pest pressure

White Pine Blister Rust (WPBR) was noted first on Ben Lomond and later on Ben Sarek each year from 2002-2005. Ben Lomond shows total defoliation by mid-September due to the disease. Ben Sarek shows partial defoliation. No WPBR has been noted on Titania. No fungicidal inputs were applied to any varieties.

Insect pests were not seen at levels high enough to be considered problems. Aphids, leafrollers and Arctiid caterpillars were occasionally found on the plants.

Birds have not been a problem although our adjacent blueberry bushes were attacked.

Flavor

We haven't found too many people who enjoy the taste of fresh black currants. They are much better processed. Ben Sarek has larger, slightly sweeter berries than the other two varieties.

Marketability

We sold out both years. Interest is high from local wineries, chefs, and jam makers. They are promoting the fact that the currants are organic on their labels. Recent news articles about the high level of vitamin C, anti-oxidants, and Alzheimers prevention are attracting attention.

What else we have learned

It may have been better to plant into a plow down of rye only. The vetch is troublesome as a weed.

Currents have grown well in this climate with little to no winter damage.

Titania has outyielded the other two varieties and is a more vigorous growing bush.

All three varieties of Black currants grown make great jams, jellies, juice and wine.

Fresh market appeal of the fruit is limited. (They are really tart and have a strong flavor!)

Hard working teenagers can pick from 8-12 lbs/hour.

They have found a welcome home on our farm and we will continue to expand our planting.

Conditions

The currants are growing in a light sandy loam soil. We haven't set up drip irrigation yet and have relied on heavy mulching for moisture retention. We have had a range of weather conditions over the past few years such as wet periods, drought periods, early frosts, winter thaws, etc, and the plants seem to handle it well (unlike our blueberries!).

Economics

We wholesaled the certified organic berries for \$2.30/lb in 2004, and \$2.15/lb in 2005.

For armchair economics we can use last year's yield and extrapolate out on an assumption of 1 acre of Titania. At an average of 4.7 pounds/bush, and a population of 1633 bushes/acre we would have a total yield of 7675 lbs/acre. At \$2.15, this would give us a gross of about \$16,500/acre. I estimate that we spent about 3 person hours of labor (\$10/hr) in each 100' row on pruning, hand weeding, mulching and cultivating. This comes out to \$1633/acre on maintenance. We pay our pickers \$1/lb., or \$7675/acre. I am estimating establishment costs of around \$10,000/acre (cover crop, field prep, plant materials, planting). Cost of mulching materials, annual cover crop seed, time supervising pickers, marketing, storage in our walk in cooler, and transportation are not

included in this estimate. We have used no external inputs for this crop. Without counting establishment costs, this gives a return for 2005 of about \$7000/acre.

Assessment

We are happy with the results thus far. We learned that black currants are well adapted to this climate and organic growing systems. We found a good wholesale market. We found a variety (Titania) that performed markedly better than the others. We will be more confident in yield projections after a few more years of experience.

Adoption

We think we could market and manage about one acre with local pickers and are slowly expanding our planting. We may look at some mechanical harvesting equipment as we grow. In the future we will plant our bushes closer together (24" spacing) to create a hedge that effectively shades out weeds. We are also planning on installing the drip irrigation system that we have already bought.

Outreach

Although our outreach plans changed from the initial proposal, we feel that we have connected with many farmers about the potential for black currants in this area. We put together a poster for the Northeast SARE meeting in Burlington which generated a good amount of interest. I gave a talk at the 'Young Entrepreneurs in Agriculture Conference' at UVM and highlighted the growing and marketing of our black currants. I have had several field trips of students from the Ecological Agriculture Program at UVM (around 60 students total), many who are interested in farming in the future. The replicated variety trial is a good visual for explaining on farm research set up also. Finally I have hosted individual visits from 4 different farmers interested in black currant growing and I have talked to several others about the subject. I am sure our outreach will continue over the years to come.

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