

Edible Forest Update

2023 was the 4th growing season for most of the plants in the Edible Forest. It is growing in beauty, due to the plants getting larger and to the excellent grounds-keeping by staff and volunteers. Visitors are very common, and there is a lot of fruit sampling (sampling encouraged, harvesting is only for staff for NPBGS support sales at the Farmer's Market). Fruit production is on the increase, with aronia berries, black currants, honeyberries, seedless grapes, and raspberries being most productive in 2023. To mention some others, the blueberries in the raised bed are coming into production, and the first mulberries were produced. Voles caused much damage in our region last winter, and there was some damage in the Edible Forest, especially to an apricot and peach tree. The only other substantial issue was that wasps and hornets severely damaged the seedless grape crop. Several new and replacement plants were added, notably including Prime-Ark Freedom blackberry and Cornelian cherries. Top-work grafting of additional cultivars was demonstrated on the base crabapple and pear trees. Shaping began on an apple tree planted to demonstrate espalier pruning. A top-work grafting demonstration and grape pruning demonstration are planned for 2024, as are monthly (at least) public and private guided tours of the Edible Forest.

Details are as follows:

Fruit production in 2023:

-2023 was the 4th growing season for many of the plants, and fruit production is increasing. There was particularly good fruit production of aronia berries, raspberries, black currants, honeyberries, and seedless grapes. There was moderate fruit production of strawberries, red currants and white currants. Carmine Jewel dwarf sour cherry, blueberries, blackberries, and wine grapes.



Somerset Seedless Grapes with good fruit set

There were a few fruits of mulberry, plum, apple, juneberries, and sour cherry trees. Substantial fruit was harvested for sale at the Farmer's Market to raise funds.

-The raised blueberry bed has bigger plants with more berries than the sunken blueberry bed, thought to be due to the peat/bark mix in the sunken bed remaining too wet.

-Wasps and hornets severely damaged the seedless grape crop.



Aronia Berries



Aronia Berry Size Comparison



Blueberry Flowers

New plants added included:

-Wyoming purple raspberry (older cultivar that is recently available again in the USA; extremely cold hardy; excellent flavor; high producer of small berries; does not sucker; thorny; trailing canes).

-PrimeArk Freedom blackberry (very large commercial-size berries; floricanes not hardy, but the earliest-ripening primocane berries, so managed for late summer berry production; thornless; suckering, so planted with an about 3-foot ring of 15-inch deep Rootmaker fabric to contain the suckers).

-Cornelian cherries (marginally hardy for zone 4a, but obtained some selections that are hopefully hardy enough; 3 selections [2 red-berried, 1 yellow-berried] of *Cornus mas* from an NDSU project planted).

-The Viktor arctic kiwi vine that died in 2022 was replaced with another Viktor, and then it died. The September Sun arctic kiwi was replaced with Nahodka arctic kiwi.

Work with existing plants included:

-The grounds of the Edible Forest were well-maintained by NPBGS staff and volunteers.



Top-work Grafting of Pear

-Additional top-working of a crabapple and pear tree. Three of four grafts grew on the crabapple tree, bringing the total number of cultivars grafted on it to five. One of two grafts grew on the pear tree, bringing the total number of cultivars grafted on it to two.

-Restarted the Murray seedling apricot tree and the P2 peach tree after they were severely damaged by voles last winter.

-Started espalier training on the Norkent apple tree planted for demonstrate that type of tree management.

-The Apple-Twist tree (Haralson and Candy Crisp, with trunks spiraled together) lost the Candy Crisp partner due to a black rot canker at the base.

-Replaced the Burton hican tree with another Burton.

-Planted a Porter hickory as a pollen source for the adjacent Weschcke hybrid hickory.



Espalier Training, Norkent Apple, 1st Year

Plans for 2024:

- Plant Mars seedless grape, finally obtained in 2023 after the original plant died in 2021.
- Replace plant bought as Reliance seedless grape when the fruit was found to be purple rather than pink, and the grapes were not seedless.
- Replace dead Viktor arctic beauty kiwi with another Viktor.
- Replace dead Brookcot apricot with another Brookcot.
- Replace rabbit-damaged edible Rabina Mountain-ash.
- Plant chokecherry selections.
- Replace poor-performing chestnut trees.
- Remove Bounty plum tree that was intended for top-working with multiple plum cultivars. The Bounty plum was planted because it was reported to not sucker, but this is likely a seedling of Bounty, and it suckers badly. It was girdled in spring, 2023 so there would be reduced suckering when removed in 2024. A Murray seedling apricot tree will replace the Bounty plum, a plum interstock will be grafted to the apricot, and the interstock will be top-worked with multiple plum cultivars.
- Continue Espalier pruning of the Norkent apple tree, likely with addition of adjacent poles and wire supports.
- Additional top-work grafting of more cultivars onto the crabapple and pear base trees (with demonstration).
- Grape pruning demonstration.
- Public and private guided tours of the Edible Forest, likely June through September.

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