

Aronia in North Dakota – They Do Sparkle!

Production. Interest in aronia production is soaring in North Dakota. We have about 42 acres of plants at 750 plants/acre. Over half that amount was planted by three growers in the last four years. In the US, Iowa has the greatest acreage at about 1,300 acres. The numbers of growers in Nebraska, Minnesota and Wisconsin are increasing as are acres in eastern states.



Aronia has been grown as a commercial berry crop in most Eastern European countries since the 1950s and in Russia since the 1940s. Since 2010, European aronia acreage has remained constant, mostly due to volatility in prices. With nearly 15,000 acres, Poland still holds 90% of world production.

Nutrition. Aronia is the new “superfood” in town. Aronia berries and products made from them are gaining in popularity due to the rising interest in eating healthier foods. Aronia are good sources of many antioxidant vitamins like C, A and E, beta-carotene and folate, and minerals like potassium, iron and manganese. They are also one of the richest plant sources of anthocyanins and proanthocyanins. Aronia berries top a list of more than 100 foods that have been scientifically tested for antioxidant capacity.

Researchers have looked at how aronia affects cardiovascular disease, colon and breast cancers, liver failure and obesity, and documented many health benefits of aronia berries. Most of the effects of aronia berries are due to their high antioxidant activity. Oxygen Radical Absorbance Capacity (ORAC) values are cited by nutraceutical processors as the most important indicator of juice quality. USDA's table of ORAC values lists the value for raw chokeberry (aronia) at 15,280 umol TE/100g, nearly three times the value in blueberries and blackberries.

Naming. The aronia that is being grown for fruit both in Europe and here in the US should be described as *Aronia mitschurinii* and not *A. melanocarpa*. *Aronia melanocarpa* is the wild species that grows in North America; it was used in the breeding of *A. mitschurinii* in Russia. Therefore, it is not really correct to say that Aronia “is a native North American fruit.”

Though some growers claim their plant varieties as superior to others, there is very little genetic diversity among cultivated aronia. In fact, the three most popular varieties, ‘Nero’, ‘Viking’ and ‘Galicjanka’, are nearly identical when compared through genetic methods.

Growing. For growing at home, space the plants from 5-8 feet apart. If the plant is dormant when planted, prune it back to 3-4 inches tall. If the plant is tall and growing, you can do this step the next spring before buds leaf out. Plants should be pruned in early spring before bud break. Prune to keep plants at a manageable size and to maintain yields. As branches age, they become less

productive. For maximum yield and plant longevity, remove branches greater than one-inch in diameter each year.

Aronia produce fruit early. By the third year after planting, berry production can be 3 to 5 pounds per bush. Production levels off at 15 to 20 pounds of fruit per plant by the fifth or sixth year in commercial plantings in western Iowa.

Fruit is ready for harvest 10-14 days after the fruit begins to turn black. The fruit is terrible before it is ripe and just slightly better when it's ready! The fruit is ready when it has swelled and turned blue-black, and is juicy and slightly sweet. It will still make your mouth feel dry due to the high tannin levels. This is not the same as bitterness. Aronia is not bitter.

Pests. Possible insect pests for aronia in North Dakota include apple maggot, cherry fruit worm, grasshoppers, spotted winged drosophila and tarnished plant bug. These pests are not active in all regions of aronia production. Here at CREC, our pests have included pear slug sawflies and lacebugs, which both feed on leaves in late summer. In your yard, these could both be removed with a strong spray of water.

Using Berries. Not many people will eat fresh aronia. They are slightly better after freezing but usually processed into a product like jam, juice or wine. To eat them raw, put the frozen berry into smoothies, yogurt, ice cream or oatmeal. You can also bake with the frozen berry: Add them to any quick bread or muffin recipe (banana!), pancakes, or add a few with other berries in crisp and pie.



References:

Handout adapted from: <http://www.agmrc.org/commodities-products/fruits/aronia-berries/>

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