

## Aronia Update 2011-12

Aronias are usually ripe in mid-September, although in 2011 they were about one week behind. Other crops were about two weeks behind this year, so aronias caught up a little as compared to earlier crops. September weather is changeable - the first full week of September saw temps in the low 80s with 87 degrees F on the 11<sup>th</sup>. The following week was mid-50s with a sprinkling of days in the 70s – and a light frost on the 14<sup>th</sup> and 15<sup>th</sup>. It was dry most of this time until we got 1.6 inches of rain on the 20<sup>th</sup>.

On Sept. 6, a week or so after color and size changes, I started watched the fruit Brix levels. Sugar levels didn't get as high as I had hoped, but flavor was good and with the season advancing, I decided to pick the first berries on Sept 19. I had help from one of our part-time employees, Bonnie, and it made the harvest go faster.

We had a small number of pear sawfly larvae skeletonizing the leaves this year, whereas last year there were a lot. The information sources say that this should not bother the plants when it occurs late in the year, but I think it does since aronia are still ripening fruit. Our harvest decreased 50 pounds from the previous year although the plants were bigger and had good pollination weather.

2011	Brix					Harvest	'Good'	'Bad'		Weight of 10
Name	9/6	9/9	9/12	9/16	Harv.	Date	(grams)	(grams)	% 'bad'	Berries (g)
RT Seedling 1					17.0	9/23	2940	92	3.0	10.6
RT Seedling 2					15.9	9/23	1287	265	17.1	9.3
RT Seedling 3					15.2	9/23	1623	113	6.5	9.9
RT Seedling 4					16.3	9/23	3424	710	17.2	9.9
<b>Total Seedling</b>	13.6	14.0	15.0	14.8	--		9274	1180	11.0	--
RT Select	13.2	14.6	16.8	17.3	16.7	9/19	10,125	735	6.8	10.6
Nero	14.4	15.5	18.0	15.0	15.0	9/19-23	12,768	1273	9.1	10.0
Viking	15.3	16.0	16.2	17.0	15.2	9/19	9,203	1684	15.5	10.6
McKenzie	--	--	--	--	--	9/23	11	--	--	--

One thing I keep seeing with aronia are smaller, reddish berries that never finish ripening. Most appear near the ground on smaller, arching branches that are pulled down by the weight of the fruit. But some of these berries are higher up and can occur on stems that also have nice, plump, ripe berries. I once



asked Iowa aronia expert, Dr. Eldon Everhart, about this and he thought that perhaps those branches had been damaged somehow and nutrient flows were inhibited. I should try to remember to flag some of those branches next year.... Anyway, to the eye, 'Viking' seemed to have the highest number of these 'bad' berries. Measurements agreed.

*In this picture, you can see both the red berries that will never ripen and the leaves skeletonized by the pear slug sawfly larvae. I think that the leaves near the top of the picture are also burned by frost.*

2011 may have been a cool, late growing season, but **2012** was extra warm and early! We had a record-warm winter and March followed by a very cool April. The plants were on their way though, and aronia bloomed about 15 days early. Flowers were 50-75% open on May 14 and 98% complete by the 17<sup>th</sup>.

An interesting fact is that aronia flowers are apomictic and don't not require pollination for fruit production. That's why there is so little variability in aronia cultivars. (Apomictic flowering plants use agamospermy: asexual reproduction through seeds.) Aronia though, can also have better fruit set when pollinated. *Amelanchier* (Juneberry) also reproduce with apogamy and their seeds are known to produce pretty true plants. Here is a reference [www.salicicola.com/translations/Skv1983Aronia.html](http://www.salicicola.com/translations/Skv1983Aronia.html) I have almost never seen European honeybees on aronia flowers. The flowers don't smell that good and therefore, flies of all kinds love them. You will see all kinds of alternative pollinators on aronia flowers.

For a third season, pear slug sawflies ate at leaf surfaces. We also had lace bugs this year!

(Here are a couple of pictures.) They chewed on the leaf bottoms while the pear slugs ate the surfaces. Geez. Our production looked like it would rebound this year, but I had had it with



all the chewing! On July 25<sup>th</sup>, I sprayed the plants with spinosad, an organic pesticide, at label rate, making sure to apply good coverage to both sides of the leaves. Wow, the next day the plants were cleared of the pests. I selected spinosad because it was the only 'safe' pesticide that would kill fly larvae (sawflies). It's very toxic to bees, but there were no flowers or ripe fruit to attract bees in July.



It was so dry by the time the aronia fruit started to swell, that I felt watering was a good idea. In the last week of July, one of our summer students used our truck tank to apply about 100 gallons of water to the 16 plants with a second application 2 days later. One week later, on August 1<sup>st</sup>, I recorded that 75-80% of the berries were turning color, but they had not swelled yet. My notes indicate that we started picking on August 22 and finished on the 24<sup>th</sup>. Wow! I normally think of picking on September 15<sup>th</sup>.

	Brix				Harvest	'Good'	'Bad'		Weight of 10
Name	8/15	8/20	9/22	Harv.	Date	(grams)	(grams)	% 'bad'	Berries (g)
RT Seedling 1				16.9	8/24	5726	--	--	8.7
RT Seedling 2				17.0	8/22	2054	--	--	9.5
RT Seedling 3				17.0	8/22	3040	--	--	9.8
RT Seedling 4				17.2	8/24	2324	--	--	9.6
<b>Total Seedling</b>	14.0	17.0		17.0		13,144	--	--	9.4
RT Select	14.4	18.6	15.1	16.2	8/22-24	18,687	--	--	10.1
Nero	15.0	17.0		17.6	8/22-24	12,988	--	--	9.7
Viking	14.6	17.8	15.3	16.8	8/22-24	17,995	--	--	10.4
McKenzie				18.7	8/24	173	--	--	10.6

I want to thank our Master Gardener volunteer, Janelle, for helping us pick this year- Thanks!!