Review of Fruit and Berry Performance in 2010 Northern Hardy Fruit Project

Kathy Wiederholt

The Northern Hardy Fruit Evaluation Project continues to mature and attract visitors to the Carrington Research Extension Center. Public interest in the fruit project has been outstanding. Outreach activities have promoted the project to approximately 540 North Dakota residents. A grant from the North Dakota Sustainable Agriculture Research and Education program provided funding for Dale and Cindy Secher of Carandale Farm, Oregon, Wis., to speak to 65 participants at the 2010 CREC Field Day. The Sechers shared their experience with having a fruit evaluation project on their private farm, owning a u-pick fruit business, participating in one of the largest and oldest farmers' markets and promoting growing sustainable fruit crops for local consumption.

Notable events in the orchard include:

- Following above-average snowfall, the growing season began the fourth week of March and ended the last week of October. However, the weather pattern overall was slightly cooler than average and late-ripening fruits like grapes, aronia and elderberry were disadvantaged.

- Black currant production was markedly decreased by a two-week period of mist, wind and cool temperatures that inhibited pollination. Red and white currants were not affected though they bloom at similar times.

- Russian Honeyberries flowered during this cool period and had excellent first crops.

- Oregon Haskap (honeyberry) flowered 7 to 10 days later than Russian selections. Collaborating researcher Dr. Maxine Thompson, retired, Oregon State University, indicates that fruit production is comparable between Corvallis, Ore., and the CREC, and winter hardiness is better than expected.

- Canadian dwarf sour cherry production was highly anticipated this season and initial yields were excellent. These disease-resistant cherries grow to USDA Hardiness Zone 2 and are the main cherry for commercial production on the Canadian Prairie Provinces. The fruit is deep burgundy colored throughout and often grown organically or marketed as a nutraceutical product.

- Juneberry fruit production tripled in the second picking year and little disease was observed.

- Aronia harvests increased 33 percent, but cool, wet weather inhibited sugar production and cracked some of the fruit just before harvest.

- Each year, many gooseberry cultivars have been severely affected by powdery mildew and other leaf diseases. Of 13 cultivars, only eight were selected for continued observation; the others were removed to lower disease pressure on the remaining plants.

- American elderberries have not ripened in the past three seasons. We have been made aware of a more suitable population by CREC tour participants and will proceed with acquiring these.

- Apple tree flowering was very light this spring; only Hazen and Harelred produced a small crop.

- Plum production was good; ‘Waneta’ fruit had a blossom end rot-like condition.

The snowy conditions of the past two winters produced damaging conditions for the grapes and their support structure. As the snow melted each year, ice formed and held the plants while pulling branches from cordons, crumpling trunks and stretching the trellis wires. In addition, the excellent soil conditions at the CREC cause the grapes to grow too far into the fall, resulting in plants with poor winter hardiness. To date, only three of 18 grape varieties have produced fruit. A plan of ‘studied neglect’ was implemented this season to limit nitrogen availability and to encourage the grapes to expend their energy reserves. This should encourage the production of hardier tissue and buds. Results of this plan won’t be known until spring 2011.

Northern Hardy Fruit Project Production Records

Fruit	Cultivar	No. of plants	2009		2010	
			Date	pounds	Date	pounds
Aronia	Nero	4	15-Sep	28.5	9-Sep	37.3
	Raintree Seedling	4	16-Sep	26.9	10-Sep	40.3
	Raintree Select	4	15-Sep	16.9	8-Sep	29.8
	Viking	4	16-Sep	33.8	10-Sep	40.6
				106.1		148.0
Hardy Cherries	SK Carmine Jewel	12	28-Jul	x	28-Jul	37.4
	SK Crimson Passion	12	28-Jul	x	28-Jul	7.7
				0		45.1
	Evans / Bali	3	22-Jul	x	22-Jul	0.7
Black Currant	*Ben Sarek*	16	10-Aug	66.2	3-Aug	24.6
Variety Trial	*Black Down*	16	27-Jul	43.2	29-Jul	29.5
	Hilltop Baldwin	16	30-Jul	20.2	29-Jul	11.3
	Titania	16	30-Jul	65.9	2-Aug	10.4
	Swedish Black	16	27-Jul	21.8	2-Aug	2.7
				217.2		78.5
Black Currant	Ben Lomand	4	10-Aug	0.9	2-Aug	4.9
	Champion	4	29-Jul	5.2	2-Aug	4.2
	Consort	4	4-Aug	16.6	29-Jul	5.2
	Minaj Smyriou	4	23-Jul	0.5	29-Jul	4.4
				23.2		18.6
Red Currant	Jhonkheer Van Tets	4	x	x	11-Aug	4.7
	Red Lake	4	31-Jul	18.4	29-Jul	21.3
	Redstart	4	10-Aug	9.8	9-Aug	12.3
	Rosetta	4	19-Aug	6.4	11-Aug	8.4
	Rovada	4	11-Aug	6.0	10-Aug	10.1
				40.6		56.8
White Currant	Blanka	4	14-Aug	9.1	10-Aug	18.9
	Primus	4	27-Jul	3.3	9-Aug	8.8
	Swedish White	4	4-Aug	5.5	3-Aug	14.6
	White imperial	2	x	x	13-Aug	5.8
				18.0		48.1
Ore. Honeyberry	22-37	3	20-Jul	0.3	6-Jul	2.3
	41-100	3	20-Jul	0.5	6-Jul	3.8
	43-87	3	20-Jul	0.1	6-Jul	1.1
	43-97	3	20-Jul	0.3	6-Jul	3.4
	45-57	3	20-Jul	0.6	6-Jul	3.3
	85-26	3	20-Jul	0.5	6-Jul	3.9
				2.3		17.8
Rus. Honeyberry	Berry Blue	4	x	x	2-Jul	9.3
	Blue Belle	4	x	x	15-Jun	5.6
	Blue Velvet	4	20-Jul	2.0	2-Jul	2.7
	Blue Moon	4	20-Jul	3.0	7-Jul	3.5
	Kamchatka	4	x	x	2-Jul	2.0
				5.0		23.2
Juneberry	*JB30*	20	17-Jul	3.6	7-Jul	37.5
Variety Trial	*Honeywood* ++	20	to	20.5	to	37.3
	Martin	20	24-Jul	1.6	16-Jul	13.8
	Smoky	20		9.4		43.2
	Thiessen	20		9.7		29.3
				44.9		161.2

++ - Juneberries are picked 3 times. Honeywood produces longer than this.

The project was planted in 2007, except Juneberries 2006.