

Northern-Hardy Fruit Project Demonstrates New Opportunities

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Background: In 2005, CREC hosted a statewide grape growing and wine making meeting where over 70 participants voiced great interest in grapes, wine and fruits. The Northern-Hardy Fruit Project was established at CREC in 2006 after the installation of a deer-exclusion fence to protect both the new project and the ongoing work of Dr. Dale Herman, NDSU woody and ornamental plant researcher. Currently, 468 plants are growing in three variety trials and 287 plants are divided into observational plantings of 15 other types of fruit. In 2009, most selections produced fruit.

The overall objective of this project is to evaluate fruiting plant selections which are hardy in northern latitudes and desired in current or emerging fresh or processed food markets. This evaluation will provide new knowledge of fruit production opportunities and determination of the specific species and cultivars that are able to satisfy this demand. Information gained from this research will provide current and potential growers with the necessary insights on adapted species and cultivars, thereby greatly reducing the economic risk of new enterprises.

The goal of the project is to identify new fruits that diversify North Dakota's agricultural base, thereby creating profitable niche markets. Plant species and cultivars that are adapted, require minimal maintenance, and possess few pest problems were selected for the study. Further, those species and varieties that produce acceptable fruit yield and high fruit quality will be promoted in outreach activities. The public will benefit from new agricultural enterprises and the availability of a greater diversity of locally grown fresh and processed foods that have high 'nutraceutical' value or health benefits.

Current Results: In fall 2009, variety trial and observational plantings were again evaluated for the following parameters: Growth (height), crown width, vigor, disease and insect damage. Yield, sugar content, ripening date and taste were evaluated in the fruit, if practical. Overall, the plants seem to have excellent growth, health and winter hardiness characteristics. This year, harvested aronia and currants were sent to one winemaker, but other contacts will be made in 2010.

Fruit Name	No. of Plants	Yield (lbs) 2008	Lbs./plant	Yield (lbs) 2009	Lbs/plant
Aronia	16	5.8	0.4	106.1	6.6
Black Currant					
Variety Trial	80	--	--	217	2.7
Observational	20	--	--	38	1.9
Red Currant	20	--	--	40.6	2.0
White Currant	8	--	--	14.6	1.8
Honey Berry	23	--	--	7.3	0.3
Juneberry	100	--	--	47.9	0.5

Two field days were conducted in 2009. About 45 people attended the fruit portion of the annual CREC Field Day event in July while 50 people attended the August evening fruit tour. Other organized and private tours introduced an additional 50 visitors, including Extension professionals and members of the North Dakota Department of Agriculture, to the Fruit Project. Because of positive interactions with the Fruit Project, three growers in North Dakota have done their own research and decided to make installations of 500 to 3000 fruit plants on their respective properties.