

**Summary 2010: Perry Pears**

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**Introduction**

Much as a new awareness of the opportunities for hard cider production in western Washington developed about 10 years ago, today there is a similar interest in perry (fermented pear juice). Pears grow well in the mild maritime climate, and are more tolerant of wet soils than most other tree fruits. Historically, perries were noted for their fine quality and full flavor. Perry pears, unlike cider apples, contain a proportion of unfermentable sugars such as sorbitol, which provides a residual sweetness to even the driest of perries. A limited trial to survey the potential for perry pears as an alternative value-added fruit crop in this region was supported by area cider makers.

**Methods**

To evaluate specific perry pear cultivars, a preliminary trial was planted in 2004, consisting of 1 specimen tree each of 15 cultivars (Table 1), grafted on the rootstock Old Home X Farmingdale 97. Source of the scion material was the National Clonal Germplasm Repository in Corvallis, OR, which then included 22 cultivars of perry pears, from which 15 were selected as being likely to perform well in the Puget Sound climate. Trees were planted in a single row and those cultivars which produced sufficient fruit were pressed for juice. The juice was analyzed for pH, acid, tannin, and soluble solids, measurements which are significant in the fermentation process of perry making.

As part of the preliminary study, fruit of 3 common dessert pear cultivars was pressed in 2006, and perries were produced. We tested the methods for perry making in aspects that might differ somewhat from those used in cider making. This preliminary study was ended in 2009 when the tree fruit horticulture program at Mount Vernon was closed.

**Results and Discussion**

Sufficient fruit for pressing and juice analysis was obtained from 5 cultivars in 2008 and 6 in 2009 (Table 2). Of these, only two (Barnet and Winnals Longdon) produced a usable quantity of fruit in both years for comparable data. Perry samples that were produced from standard dessert pears in 2006 demonstrated that even without the addition of perry pears, a good quality perry can be produced from local area orchards (Table 3). Regrettably, this trial was brought to an end by the closing of the fruit horticulture program before enough long term data had been collected to present any specific recommendations.

**Acknowledgements**

Financial support for this study has been provided by the Northwest Cider Society and the Northwest Agricultural Research Foundation. Local nurseries have donated trees and materials; their contributions are gratefully acknowledged.

## References

National Clonal Germplasm Repository – Corvallis *Pyrus* Catalog, NCGR Corvallis, 33447 Peoria Road, Corvallis, OR 97333

**Table 1.** Perry pear cultivars planted 2004 at WSU Mount Vernon NWREC (plant material and descriptive information from NPGS, Corvallis, OR<sup>1</sup>).

<a href="#">PI 541123 Barland</a> Bittersharp (high acid, high tannin)	<a href="#">PI 506378 Romania Perry Pear</a> (virus infected) small, yellow, used for brandy
<a href="#">PI 541124 Barnet</a> Sweet (low acid, low tannin); late bloom	<a href="#">PI 541261 Schweizer Wasserbirne</a> flesh white, not juicy, potato-like in texture; scab resistant
<a href="#">PI 541151 Blakeney Red</a>	<a href="#">PI 541271 Taynton Squash</a> medium sharp (medium acid, medium tannin)
<a href="#">PI 541156 Butt</a> bittersharp (medium acid, high tannin)	<a href="#">PI 483367 Theilersbirne</a> very old Swiss variety
<a href="#">PI 483365 Gelbmostler</a> astringent; scab resistant	<a href="#">PI 541273 Thorn</a> medium sharp (medium acid)
<a href="#">PI 541195 Gin</a> medium sharp (medium acid, medium tannin)	<a href="#">PI 541486 Winnals Longdon</a> medium sharp (medium acid, medium tannin)
<a href="#">PI 541205 Hendre Huffcap</a> sweet (low acid, low tannin)	<a href="#">PI 541287 Yellow Huffcap</a> medium sharp (high acid, medium tannin)
<a href="#">PI 231806 Normannischen Ciderbirne</a> somewhat dry and can be sweet but with some sprightliness; scab resistant	

<sup>1</sup><http://www.ars.usda.gov/SP2UserFiles/Place/53581500/catalogs/pyrperry.html>

**Table 2.** Juice characteristics for perry pears tested at WSU Mount Vernon NWREC in 2008 and 2009.

Cultivar	Test Date		pH		Brix		T. Acid %		Tannin %	
	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008
Barnet	Oct 9	Nov 19	4.31	3.93	14.3	12.8	4.60	3.48	0.52	0.24
Winnals Longdon	Oct 9	Nov 19	4.33	3.86	16.2	13.2	5.12	5.04	0.07	0.17
Barland	Oct 2		2.81		16.0		14.52		0.74	
Butt	Oct 2		3.22		17.0		8.15		0.55	
Hendre Huffcap		Nov 19		3.81		11.4		5.15		0.09
Romanian Perry	Oct 2		3.43		15.8		6.00		0.66	
Sachweizer Wasserbirne		Nov 19		3.96		13.2		4.40		0.09
Thielersbirne		Nov 19		3.57		12.2		8.42		0.38
Yellow Huffcap	Oct 2		3.62		14.8		13.35		0.83	

**Table 3.** Pear juice pressed, fermented, and bottled at WSU Mount Vernon NWREC in 2006.

Cultivar	Press Date	Net fruit (lbs)	Yield (gal)	Lbs/gal	pH	Spec. Grav.	Brix	T. Acid %	Tannin %
Conference	Oct 20	139.3	8.5	16.4	3.39	1.051	12.7	0.15	0.03
Concorde	Oct 20	147.9	10.5	14.1	3.38	1.055	13.9	0.13	0.03
Comice	Oct 20	131.7	9.0	14.6	3.47	1.051	12.8	0.17	0.02