

2001 Cemetery Block Variety Trial Report

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Varietal observations and comments:

- Attika: Although no data was taken on the one tree at the cemetery block, observations indicated that fruit this year was large and firm with very high eating quality. Fruit ripened seven to ten days after Bing. Stem attachment was very strong even on over-ripe fruit. Rain cracking was low.
- Cristalina: The fruit ripened this year just before Bing harvest. Fruit was large and moderately firm. Typical of many Canadian cultivars the flavor was a little flat. Stem retention may be a problem. Additional observations needed to verify.
- Regina: Observations at two locations in The Dalles on mazzard and Weiroot 158 indicate a cherry of very high quality. Fruit set on mazzard planted in 1997 was light, but good on the Weiroot. Fruit data was taken from trees on mazzard showing large fruit averaging 84% 9 row and larger when slightly unripe. Fruit was firm in a year when many varieties were soft. Eating quality was good, although flavor was a little flat. Harvest date was slightly after Lapins. Rain cracking was low.
- Sandra Rose: A cherry with very high eating quality and large fruit with nearly 60% of the fruit 8 row and larger. The one concern remains firmness. Even with a GA application fruit may be too soft to market.
- Santina: An early variety to keep an eye on. No crop in The Dalles or Hood River in 2001. According to Hugh Dendy this cherry ripens about 10 days before Bing, with comparably sized fruit. Dendy prefers its eating quality to Chelan.
- Skeena: Trees in The Dalles were too immature to produce but bearing trees were observed in Wenatchee and Canada. In Wenatchee fruit was harvested 2-3 days after Lapins. Fruit quality was excellent, very firm and high eating quality. Similar to Lapins in size. Fruit was borne in loose clusters at the base of the previous seasons wood. Trees are more open than Lapins but branching is sparse.



A branch showing the individual nature of 'Regina' fruit produced on long stems.



Skeena produces relatively loose clusters of fruit.

- Sonata: A very large cherry with 60% of the fruit 8 row and larger. Nose end splits were not as significant a problem this year as previously, with less rain damage than Bing. Fruit however, seemed softer than previous years, potentially due to the rain. Comments by both Hugh Dendy and Kyle Mathison indicate that although generally firm when harvested this cherry softens in shipment. Observations of Sonata grown in Canada indicated a stem retention problem.
- Sonnet: A bright red cherry with white flesh that may be of interest to Japanese and Taiwanese markets. Eighty percent of the fruit this year was 80% 9 row and larger with acceptable firmness. According to the Canadians this cherry will typically ripen just before Bing, but was several days later in our trial this year.
- Staccato: A very late cherry ripening several days after Sweetheart. Fruit size is similar to Sweetheart with 60% 9 row and larger. Excellent firmness and good flavor but a little flat as is typical of many Canadian cultivars. Powdery mildew was prevalent on the fruit but sprays were not consistently applied after Bing harvest, which was one month earlier. Not yet available for production in the U.S.
- Sweetheart: A very late variety harvested 27 days after Bing. Sweetheart is known for its consistently firm fruit. The fruit size is large with 80% 9 row and larger when grown on Mazzard. Powdery mildew was a problem in the high density Gisela 6 block even though it was sprayed consistently.
- Symphony: A very late variety ripening with Sweetheart this year. Although fruit is large it is somewhat smaller than Sweetheart. Stem retention has been known to be a problem. Sweetheart is the better quality cherry for this harvest window.
- 13S-21-7: This selection has good fruit quality and is harvested between 'Bing' and 'Lapins', although it has shown some susceptibility to rain cracking. Trees show good branch angles.
- 13S-21-1: Fruit is comparable to 'Bing' and has good flavor and firmness; the main attribute of this selection is its extreme lateness (mid- to late August). During 2001, it showed severe susceptibility to powdery mildew while still unripe. Its cultivation would likely require intense powdery mildew management during years of high pressure.
- 13S-3-13: Early, with large fruit of good flavor; and good crop load. Trees are relatively vigorous, with good branch angles.



Staccato is a very high quality, large, late cherry.

Table 1. Time of sweet cherry bloom for various cultivars and selections in Hood River and The Dalles, 2001

Cultivar/ Selection*	Research Station, Hood River	Research Station, Hood River	Cemetery Block, The Dalles	Cemetery Block, The Dalles
	First white (popcorn)		First white (popcorn)	
‘Santina’	-	4/25	-	-
‘Lapins’	4/8	4/18	3/31	4/15
‘Sweetheart’	4/12	4/24	4/3	4/18
‘Bing’	-	4/22	4/5	4/19
‘Bing/G5	-	-	4/2	4/19
13S-3-13	4/11	4/18	4/6	4/19
‘Van’	-	4/24	4/4	4/20
‘Bing’/G6	-	-	4/3	4/20
‘Sonata’	-	-	4/6	4/20
‘Symphony’	-	-	4/4	4/20
‘Staccato’ (13S-20-9)	-	-	4/4	4/21
‘Cristalina’	4/14	4/25	4/8	4/22
13S-21-7	-	-	4/6	4/22
‘Sonnet’	4/14	4/24	4/10	4/23
13S-21-1	-	4/25	4/8	4/23
‘Sandra Rose’	-	4/26	4/10	4/24
‘Regina’	4/20	4/30	4/15	4/26



A large Canadian cherry vs. a 10 row ‘Bing’



Attika (center) is blooming ahead of Regina (right).

Notes on Table 2

Tree vigor (trunk cross sectional area)

The smallest trunk cross sectional area (TCSA) for trees planted in 1996 (the majority of the collection) were measured in 'Bing'/G6 and 'Bing'/G5 (104.0 and 105.1 cm², respectively; Table 2). The largest trunks were recorded for 8S-3-13 and 'Lapins' (in Marchand system), with values of 249, 256, and 239 cm² TCSA.

Rain cracking

Observations on susceptibility to rain cracking were made on June 28, after two rain events occurring on June 25 and 26. Observations were limited mainly to named cultivars. 'Lapins' and 'Sylvia' had slight damage; 'Sandra Rose', 'Sonata' and 'Cristalina' had slightly less damage than 'Bing'. 'Bing' had close to 30% on lower branches.

Powdery mildew

Incidence of mildew on 'Sweetheart' varied with rootstock: Compact trees grafted onto Gisela 6 rootstock had substantially greater mildew damage than trees grafted onto Mazzard, which had more open canopies and little clustering compared to trees on Gisela 6. Severe mildew damage was observed on 13S-21-1, to a degree that rendered the crop non-harvestable.

Table 2. Sweet cherry cultivars and selections under evaluation in The Dalles, 2001

Selection/Cultivar	Year planted	TCSA (cm²)	Crop load Estimation	Distinguishing qualities
'Cristalina'	1996	229.55	Good	Early, firm, good flavor
13S-3-13	1996	255.56	Small-medium	Large, early, firmer than Newstar
Bing/Marchand	1996	244.89	Medium-good	Standard for comparison
'Bing'/G5	1996	105.13	Good	Standard for comparison
'Bing'/G6	1996	103.96	Good	Standard for comparison
'Sonata'	1996	201.56	Small-medium	Firm, large, later than Bing
'Sandra Rose'	1996	227.56	Small	Larger, later than Bing
'Sonnet'	1997	130.73	Very small	late
13S-21-7	1996	181.91	Medium with some clustering	Firm, good flavor, mid-season
'Symphony'	1996	244.05	Small-medium	Very late
'Lapins'/Marchand	1996	238.89	Medium-good	Standard for comparison
'Regina'	1997	169.31	small	Late, firm, rain crack resistant
'Sweetheart'	1996		Good to over-set	Late, large, firm
'Staccato'	1997	176.68	small	Late, good tree angles, good flavor
13S-21-1	1996	172.57	Good	Good flavor, very late
'Skeena'	1998	50.95	none	Good tree angles, late, large
'Santina'	1998	57.28	none	early
'Attika'	1996	195.08	good	Late, firm, consistently big fruit

Fruit size : ‘Bing’ trees produced fruit averaging 9.4 g (in Marchand system) to 11.4 g (on Mazzard steep leader); fruit diameters were between 28 and 30 mm for ‘Bing’ (9.5 to 9 row). The largest fruit weights occurred in 8S-3-13 (16 g), ‘Sandra Rose’, ‘Sonata’, and ‘Regina’ (all with weights of at least 15 g). Fruit from all these extra-large cultivars had average diameters exceeding 33 mm (8-row). More than 95% of the fruit samples from these cultivars consisted of fruit of size 9-row and larger.

Maturity: ‘Bing’ was considered to be ripe on July 3 in The Dalles (Table 3). Cultivars maturing before ‘Bing’ included ‘Cristalina’, and 8S-3-13. ‘Lapins’ was considered ripe on July 26. Cultivars maturing after ‘Lapins’ included 13S-21-1, ‘Staccato’ (both ripe on August 9), and ‘Symphony’.

Fruit firmness: Firmness varied greatly due possibly to the different maturity stages on the different evaluation dates (Table 3). Across cultivars, firmness did not appear to be directly correlated to maturity stage.

Table 3. Fruit maturity and size of selections and cultivars under evaluation at The Dalles, 2001

Selection/ Cultivar	Date	Ripeness status	Fruit wt. (g)	Fruit diam. (mm)*	% 9-row & larger	% 8-row & larger	Firmness (g/mm)*
‘Cristalina’	6/28	Under-ripe	11.5	-	-	-	-
‘Cristalina’	7/3	Over-ripe	11.6	30.4	64	4.0	285.5
13S-3-13	6/28	Under-ripe	16.0	-	-	-	-
13S-3-13	7/3	Over-ripe	16.5	34.7	100	76.0	250.4
‘Bing’/ Marchand	7/3	ripe	9.4	27.9	4	0.0	330.3
‘Bing’/G5	7/3	ripe	11.3	29.5	52	0.0	235.3
‘Bing’/G6	7/3	ripe	10.8	28.7	20	0.0	235.3
‘Bing’/steep leader	7/3	ripe	11.4	30.0	60	0.0	272.8
‘Sonata’	7/6	Under-ripe	13.6	32.3	96	32.0	300.8
‘Sonata’	7/13	overripe	15.0	33.6	96	60.0	263.7
‘Sandra Rose’	7/6	ripe	15.3	33.7	100	57.7	257.6
‘Sonnet’	7/6	ripe	13.4	30.0	80	0.0	293.2
13S-21-7	7/6	Under-ripe	12.6	32.3	100	32.0	408.7
13S-21-7	7/13	Over-ripe	12.5	30.9	76	0.0	310.5
‘Symphony’	7/26	Under-ripe	11.1	27.8	44	0.0	247.3
‘Symphony’	8/3	Over-ripe	11.1	30.2	56	0.0	257.8
‘Lapins’	7/26	ripe	11.5	29.6	40	0.0	240.6
‘Sweetheart’	7/26	4 days before harvest	13.1	31.8	80	28.0	322.1
‘Regina’	7/26	Under-ripe	14.0	31.5	84	16.0	279.1
‘Regina’	8/3	Over-ripe	15.2	34.0	95	75.0	304.8
‘Sweetheart’/G6	7/26	4 days before harvest	12.4	30.9	76	4.0	321.1
‘Staccato’	8/9	ripe	10.7	30.2	60	4.0	335.9
13S-21-1	8/9	Under-ripe	10.5	29.8	32	0.0	300.9

* from a sample of 25 fruit