

‘Marys Peak’ Strawberry

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‘Marys Peak’ is a new June-bearing (short-day) strawberry (*Fragaria* × *ananassa* Duchesne ex Rozier) cultivar from the U.S. Department of Agriculture-Agricultural Research Service (USDA-ARS) breeding program in Corvallis, OR, released in cooperation with the Oregon Agricultural Experiment Station. The most outstanding characteristic of ‘Marys Peak’ is its excellent fruit quality as a processed or fresh product. Its flavor, size, firmness, color, low incidence of botrytis fruit rot (*Botrytis cinerea* Pers.), and yield are particularly notable. A U.S. plant patent application (S.N. 15/330,507) has been submitted.

Origin

‘Marys Peak’ was selected in 2002 from the cross ‘Pinnacle’ × ORUS 1723-3 made in

2000 and was tested as ORUS 2427-4 (Fig. 1). The purpose of the cross was to combine the large fruit size and open plant architecture of ‘Pinnacle’ with the outstanding fruit quality characteristics of ORUS 1723-3 (Finn et al., 2004). Although the cultivar Pinnacle’s pedigree predominantly represents a mixing of Northwest and California germplasm, ORUS 1723-3’s pedigree is extremely diverse including eastern, southeastern, and Ecuadoran *Fragaria chiloensis* L., through ‘Ambato’ (aka ‘Huachi’), in addition to germplasm from the Pacific Northwest and California (Finn et al., 1998; Hancock et al., 1996; Sjulín and Dale, 1987). ‘Marys Peak’ was tested at the Oregon State University–North Willamette Research and Extension Center (OSU-NWREC, Aurora, OR), Washington State University Puyallup Research and Extension Center

(WSU-Puyallup, Puyallup, WA), and Agriculture and Agri-Food Canada (AAFC, Abbotsford, BC), Pacific Agri-Food Research Center and grower fields in Oregon. The most thorough commercial testing was conducted at Grandpa’s Fresh Market (Albany, OR), Stahlbush Island Farms (Corvallis, OR), and Townsend Farms (Forest Grove, OR). At the public research facilities, ‘Marys Peak’ was planted in multiple replicated trials established from 2010 to 2014.

In all research trials, the plants were grown in a matted row system, the predominant commercial system in the Pacific Northwest. Plants were established in non-fumigated eight-plant plots at 46 cm apart within the row in Oregon and British Columbia and 38 cm apart in Washington. The trials had three replications. At the OSU-NWREC, fertilizer (350 kg·ha⁻¹ of N; 16N–7P–13.3K) was applied after renovation (mowing off the old leaves after harvest, generally in late July) and again in spring (175 kg·ha⁻¹ of N). Herbicides were applied at planting and in spring, late July, and autumn of the fruiting years, as required, per standard commercial practice (DeFrancesco, 2017). The planting received ≈2.5–5.0 cm of water per week either as overhead irrigation or rainfall. There were two fungicide applications (one each of azoxystrobin and cyprodinil/flu-dioxonil) during bloom to control botrytis fruit rot (*B. cinerea* Pers.:Fr.), but the plantings received no other pesticide applications. Ripe fruits were harvested once a week. The average fruit weight for a season was calculated as a weighted mean based on the weight of a randomly selected subsample of 25 fruit from each harvest. The weighted mean was calculated by multiplying average berry weight for each week of harvest by the proportion of total yield picked that week; the values were then summed. In multiple-year trials, yield, average fruit weight, and average fruit rot were analyzed as a split-plot in time with year as the main plot and cultivar as the subplot. Fruit firmness was measured in the WSU-Puyallup trials as the force required for a 4-mm-diameter cylinder (Hunter Spring Mechanical Force Gauge Series L; Ametek, Hatfield, PA) to penetrate to a depth of 6 mm in five randomly selected fruit from each harvest. The average fruit firmness for a season was calculated as a weighted mean similarly to the average fruit weight. The plantings and the analyses (PROC GLM; SAS Institute, Cary, NC) included the industry standards ‘Tillamook’ and ‘Totem’ along with the recent releases ‘Charm’ and ‘Sweet Sunrise’ and other advanced selections or cultivars being evaluated for adaptation (Finn et al., 2004, 2013, 2014). Plant vigor and fresh fruit characteristics including appearance, firmness, external and internal color, capping (ease with which the calyx was removed), and flavor were rated subjectively at least three times each year in Oregon using a 1 to 9 scale (1 = poor vigor, uneven rough appearance, soft fruit, very light-colored, poor separation of calyx from receptacle, and poor flavor and 9 = very vigorous, very uniform and attractive, very firm, dark red, calyx separates easily from the receptacle, and intense flavor, respectively) similar to those described by Mathey et al. (2013). In multiple years, duplicate

subsamples of ≈ 200 g each were taken randomly from frozen and thawed harvested fruit and were evaluated for percent soluble solids, pH, and titratable acidity in the laboratory (Mathey et al., 2013). Fruit samples of 'Marys Peak', 'Sweet Sunrise', 'Tillamook', and 'Totem' were analyzed for anthocyanin concentrations using previously described procedures (Lee and Finn, 2007) with a longer high-performance liquid chromatography column (Synergi Hydro-RP 80 Å, 250 mm \times 2 mm, 4 μ m; Phenomenex, Inc., Torrance, CA). Fruit were also evaluated informally as a thawed, individually quick frozen (IQF) product by growers, processors, and researchers. In these informal evaluations, growers were asked to rate samples as either "would plant this genotype," "not sure," or "would discard this genotype" and then to make any comments they felt appropriate. We have found that these types of evaluations are not necessarily that valuable individually, but over the course of the years a genotype is in evaluation, an accumulation of positive or negative impressions has been useful in making release decisions.

Description and Performance

'Marys Peak' had good yields in nearly all trials with yields comparable with or higher than recent releases 'Charm' and 'Sweet Sunrise' or the industry standards 'Tillamook' and 'Totem' in each location (Tables 1 and 2) (Daubeney et al., 1993; Finn et al., 2004, 2013, 2014). In Oregon trials, 'Marys Peak' had mean yields that were consistently at or near the top for the cultivars in trial (Table 1). In the second year harvest

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Mention of trade names or commercial products in this manuscript is solely for the purpose of providing specific information and does not imply recommendation or endorsement by the U.S. Department of Agriculture, Oregon State University, Washington State University, or Agriculture and Agri-Food Canada.

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Table 1. Yield, fruit weight, and percent fruit rot for 'Marys Peak' and other strawberry cultivars in five replicated trials at Oregon State University–North Willamette Research and Extension Center.

Cultivar	Fruit wt (g) ²		Fruit rot (%)		Yield (kg·ha ⁻¹)	
	Yr 1	Yr 2	Yr 1	Yr 2	Yr 1	Yr 2
2010 planted						
Charm	17.7 b	11.9 b	27.6 a	16.8 b	39,834 a	25,226 a
Marys Peak	19.3 a	16.9 a	18.6 a	13.8 b	29,541 ab	25,839 a
Tillamook	14.9 c	11.2 b	22.2 a	41.1 a	31,885 a	6,732 c
Totem	16.2 bc	11.8 b	23.5 a	29.4 a	18,577 b	17,242 b
2011 planted						
Charm	15.1 b	8.1 b	20.2 a	29.0 a	29,241 a	12,435 a
Marys Peak	16.7 b	7.3 b	22.5 a	14.8 a	18,390 b	9,061 a
Tillamook	22.0 a	14.6 a	27.5 a	18.2 a	15,054 b	10,900 a
Totem	17.2 b	7.6 b	29.6 a	17.0 a	13,580 b	14,448 a
2012 planted						
Charm	13.2 a	12.2 a	11.4 a	11.5 a	32,640 a	31,100 a
Marys Peak	15.0 a	14.0 a	5.2 b	11.7 a	22,493 b	19,172 b
Sweet Sunrise	15.8 a	13.7 a	13.6 a	10.3 a	23,956 ab	25,243 ab
Totem	13.1 a	11.6 a	17.9 a	16.7 a	13,353 c	18,883 b
2013 planted						
Charm	21.0 a	10.9 ab	11.6 a	69.9 a	34,093 a	5,012 bc
Marys Peak	20.4 ab	13.2 a	6.4 a	28.5 b	30,996 ab	8,318 b
Sweet Sunrise	19.6 ab	13.7 a	9.9 a	29.0 b	29,499 a–c	15,788 a
Totem	17.2 b	8.0 b	11.1 a	40.9 ab	25,599 bc	2,415 c
Tillamook	18.2 b	13.6 a	11.6 a	57.1 a	22,133 c	1,744 c
2014 planted						
Tillamook	19.7 ab	14.0 a	15.6 bc	6.2 a	30,408 a	25,420 a
Charm	15.5 c	8.1 c	31.2 a	6.6 a	29,893 a	22,405 a
Marys Peak	18.6 b	11.3 b	21.4 b	4.8 a	20,980 b	20,017 ab
Sweet Sunrise	20.4 a	11.0 b	11.2 c	4.2 b	20,430 b	19,553 a
Totem	13.8 c	7.3 c	19.5 b	9.8 a	18,917 b	5,269

²Means within a column and within a planting year followed by the same letter are not significantly different, $P > 0.05$, by least significant difference test.

Table 2. Yield, fruit weight, fruit firmness, and percent fruit rot for 'Marys Peak' and other strawberry cultivars in replicated trials at Washington State University–Puyallup and Agriculture and Agri-Food Canada planted in 2012.

Cultivar	Fruit wt (g) ²		Fruit rot (%)		Fruit firmness (g)		Yield (kg·ha ⁻¹)	
	2013	2014	2013	2014	2013	2014	2013	2014
Washington								
Charm	17.6 bc	15.7 cd	10.1 b	16.5 a	148 a	131 ab	38,012 a	53,487 a
Hood	13.9 d	14.7 cd	14.7 b	10.5 a	101 b	120 ab	28,940 ab	34,306 ab
Marys Peak	19.8 ab	15.8 cd	2.2 b	2.7 a	161 a	132 ab	23,642 ab	27,633 b
Puget Crimson	19.6 ab	17.5 a–c	6.1 b	12.9 a	127 ab	102 ab	25,092 ab	45,125 ab
Puget Reliance	16.6 c	13.9 cd	9.1 b	15.6 a	128 ab	93 b	27,341 ab	33,543 b
Tillamook	18.2 bc	20.0 ab	9.2 b	5.5 a	138 a	138 a	20,205 b	36,921 ab
Totem	13.0 d	13.3 d	13.5 b	10.5 a	148 a	133 ab	28,604 ab	41,479 ab
Valley Sunset	21.8 a	21.1 a	28.7 a	21.8 a	139 a	135 ab	21,050 b	33,715 ab
British Columbia								
Marys Peak	20.4 bc	20.2 b	11.6 ab	2.2 b	—	—	22,244 a	38,527 a
Nisgaa	19.9 bc	18.4 bc	20.9 a	15.6 ab	—	—	16,065 a	40,593 a
Puget Reliance	20.9 bc	19.8 b	14.2 ab	12.3 ab	—	—	16,783 a	30,462 ab
Rainier	22.2 b	16.5 c	29.8 a	22.3 a	—	—	6,970 c	22,815 b
Stolo	19.6 bc	20.7 b	23.7 a	12.6 ab	—	—	11,877 ab	33,761 ab
Sweet Sunrise	17.8 c	18.1 bc	9.3 b	7.1 b	—	—	12,440 ab	23,186 b
Tillamook	33.1 a	25.1 a	13.4 ab	3.5 b	—	—	11,870 ab	30,492 ab
Totem	17.6 c	15.3 c	12.4 ab	8.9 ab	—	—	15,529 a	35,674 ab

²Means within a column and within a location followed by the same letter are not significantly different, $P > 0.05$, by least significant difference test.

of the 2013 planted field, the yields for all cultivars were much lower than for 'Sweet Sunrise' because of ideal, warm, and wet conditions for leather rot [*Phytophthora cactorum* (Lebert & Cohn) Schröt] development that the early ripening 'Sweet Sunrise' escaped. In Washington, 'Marys Peak' was comparable in yield with all other cultivars in trial in the first harvest season and with all cultivars except 'Charm' in the second harvest season (Table 2). In British Columbia, 'Marys Peak' had the highest or second highest yield in both years and was compa-

table with 'Tillamook' and 'Totem' but greater than 'Rainier' in both years and greater than 'Sweet Sunrise' in year two (Table 2). Although not always significant, in nearly every trial at all three locations over each year of evaluation, 'Marys Peak' was either the lowest or among the lowest for fruit lost to fruit rot (*B. cinerea*) (Tables 1 and 2). The low incidence of fruit rot was not that surprising as 'Marys Peak' is later ripening than all of the standard cultivars in Oregon and most of the standards in Washington. 'Marys Peak' had less than 3% rot in



Fig. 2. Fruiting truss of 'Marys Peak' strawberry.



Fig. 3. Capped, harvested fruit of 'Marys Peak' strawberries for processing.



Fig. 4. Plants of 'Marys Peak' in June in Aurora, OR.

'Hood'. The fruit were not rated to be as attractive and symmetrical as those of 'Puget Reliance', 'Valley Red', 'Charm', and 'Totem', or as poorly as 'Hood' and were comparable with 'Sweet Sunrise', 'Puget Crimson', and 'Tillamook' (Table 3; Fig. 2). 'Pinnacle', a parent of 'Marys Peak', was noted for a relatively high rate of fruit deformities due to uneven achene set (Finn et al., 2004) and although 'Marys Peak' can have fruit deformities, they were much less common than for 'Pinnacle'. 'Marys Peak' fruit had excellent, uniform, and ideal external color, typically darker than 'Puget Reliance', 'Sweet Bliss', 'Charm', 'Tillamook', and 'Totem', and comparable with 'Hood', 'Puget Crimson', 'Sweet Sunrise', and 'Valley Red' (Table 3). The fruit were uniformly deep, bright red when cut open, comparable with 'Hood', 'Puget Crimson', 'Sweet Sunrise', and 'Valley Red' and darker than 'Charm', 'Puget Reliance', 'Tillamook', and 'Totem' (Table 3). In research evaluations, the fruit were rated as easily capped as 'Sweet Sunrise', 'Totem', 'Hood', and 'Tillamook' but not as easy capped as 'Valley Red', 'Puget Crimson', or 'Charm' (Table 3). 'Marys Peak' fruit tasted very good with a good acid to sweetness balance (Table 3). 'Marys Peak' fruit were rated similarly to those of all the cultivars in trial but better than 'Tillamook' and 'Valley Red'. Although the flavor scores were good for 'Marys Peak', as with 'Tillamook', it benefits from picking as infrequently as possible so that sugars have a chance to accumulate to the greatest extent possible between harvests.

As part of the breeding program, thawed, IQF fruit of each genotype were evaluated by a panel composed of researchers and industry members annually in the off-season. In all

evaluations, ‘Marys Peak’ was rated excellent and in 2016 the fruit were rated higher than ‘Sweet Sunrise’, ‘Hood’, ‘Charm’, ‘Tillamook’, and ‘Totem’ (data not shown). The fruit chemistry values for ‘Marys Peak’ were good and acceptable for commercial processing (Table 4). The percent soluble solids for ‘Marys Peak’ was not as high as for ‘Hood’, ‘Benton’, or ‘Puget Crimson’ but was higher than that for ‘Charm’, ‘Stolo’, ‘Sweet Bliss’, ‘Tillamook’, and ‘Valley Red’. Ideally, fruit for processing have a pH near 3.50 (Wrolstad et al., 2008). In the years of trial, fruit pH was lower for ‘Marys Peak’ than for ‘Sweet Sunrise’, ‘Stolo’, and ‘Hood’ and comparable

with the other cultivars in trial (Table 4). ‘Marys Peak’ had a medium titratable acidity, lower than that of ‘Sweet Bliss’, higher than that of ‘Sweet Sunrise’, and comparable with most other cultivars. ‘Marys Peak’ had the lowest anthocyanin concentration (24.2 mg/100 g) of the four cultivars compared (Table 5). The anthocyanin profile of ‘Marys Peak’ fruit was similar to those of ‘Sweet Sunrise’, ‘Totem’, and ‘Tillamook’; each had all five anthocyanins represented with pelargonidin-3-glucoside being the chief anthocyanin (>87% of the total anthocyanins in ‘Marys Peak’). ‘Marys Peak’ strawberry contained a slightly higher proportion of

cyanidin-based anthocyanins than ‘Totem’ or ‘Tillamook’.

‘Marys Peak’, although not considered late ripening, was later ripening than the current standards (‘Hood’, ‘Totem’, and ‘Tillamook’) in Oregon (Table 6). In Washington, ‘Marys Peak’ ripened with the other standard cultivars in the midseason. In Oregon, the slightly later ripening is considered a potential disadvantage for growers as the fruit harvest may overlap with early ripening blueberries creating competition for scarce labor. The harvest interval for ‘Marys Peak’ was comparable with most other cultivars in the trial (Table 6).

‘Marys Peak’ plants were vigorous and were considered not as vigorous as ‘Charm’ and ‘Sweet Sunrise’, comparable in vigor with ‘Puget Crimson’, ‘Valley Red’, and ‘Totem’, and more vigorous than ‘Tillamook’ (Fig. 4; Table 3). Although vigorous, the plant architecture was more similar to ‘Tillamook’, which is upright and open with fewer crowns per plant than ‘Charm’, which is dense with many crowns (Finn et al., 2013). Although not screened for any particular disease resistance in the Pacific Northwest, the plants held up well through the second harvest season and appear to have good virus tolerance. Under our minimal pest-control program, ‘Marys Peak’ did not show any particular susceptibility to pests. In bench screening tests conducted by AAFC (Kentville, NS), ‘Marys Peak’ plants were susceptible to *Phytophthora fragariae* Hickman races Cdn-4 and Cdn-5, although not highly susceptible (data not shown). In container bench trials conducted by California Polytechnic State University (San Luis Obispo, CA), ‘Marys Peak’ was moderately susceptible to the soil-borne pathogens *Macrophomina phaseolina* and *Fusarium oxysporum* f. sp. *fragariae* and tolerant to *Verticillium dahliae* in two inoculation trials (data not shown).

The most outstanding characteristic of ‘Marys Peak’ was its excellent fruit quality as a processed or fresh product. Its flavor, size, firmness, color, low incidence of fruit rot, and yield were particularly notable.

These characteristics make it well suited for the fresh or processed fruit markets.

Availability

A plant patent application has been submitted. The nuclear stock plants for propagation have tested negative for *Apple mosaic*, *Tomato ringspot*, *Strawberry mild yellow edge*, *Tobacco streak*, and *Strawberry necrotic shock*

Table 3. Mean scores over 9 years for characteristics subjectively evaluated in the field for ‘Marys Peak’ and nine other strawberry cultivars planted at Oregon State University–North Willamette Research and Extension Center.

Cultivar	Plant vigor ²	Fresh fruit characteristics					
		Appearance	Firmness	Color		Capping	Flavor
				External	Internal		
Charm	8.5 a ³	7.6 cd	7.4 cd	7.2 cd	7.0 c	8.0 ab	7.3 bc
Hood	6.7 e	6.0 f	6.6 f	7.7 a	7.7 a	7.6 b–d	7.8 a
Marys Peak	7.5 bc	6.8 e	8.2 a	7.8 a	7.7 a	7.2 cd	7.5 ab
Puget Crimson	7.4 b–d	7.1 de	7.7 bc	7.7 a	7.4 ab	7.9 ab	7.8 a
Puget Reliance	7.1 de	8.5 a	6.0 g	7.1 d	6.5 d	7.8 a–c	7.0 b–d
Sweet Bliss	6.7 e	7.9 bc	7.6 bc	7.2 cd	7.0 c	7.5 b–d	7.5 ab
Sweet Sunrise	8.4 a	7.2 de	7.8 b	7.7 ab	7.6 a	7.1 d	7.5 ab
Tillamook	7.0 de	6.8 e	8.0 ab	7.3 cd	7.2 bc	7.1 d	6.7 e
Totem	7.2 cd	7.6 cd	7.0 e	7.4 bd	7.3 b	7.8 a–c	7.2 b–d
Valley Red	7.7 b	8.3 ab	7.2 de	7.9 a	7.7 a	8.3 a	6.8 de

²Traits scored on a 1 to 9 scale: 1 = poor vigor, uneven rough appearance, soft, very light-colored, poor separation of calyx from receptacle (“capping”), and poor flavor and 9 = very vigorous, very uniform and attractive, very firm as manually evaluated, dark red, calyx separates easily from the receptacle, and intense flavor, respectively.

³Means within a column followed by the same letter are not significantly different, $P > 0.05$, by least significant difference test.

Table 4. Soluble solids, pH, and titratable acidity for fruit purees of 11 strawberry cultivars grown at the Oregon State University–North Willamette Research and Extension Center from 2004 to 2015.

Cultivar	Soluble solids (°Brix) ²	Titratable acidity	
		pH	(g·L ⁻¹ as citric acid)
Oregon			
Benton	9.47 a	3.39 c–e	10.01 a–c
Charm	7.52 de	3.35 e	9.49 b–d
Hood	9.99 a	3.51 ab	8.47 d–f
Marys Peak	8.74 b	3.39 c–e	9.34 b–d
Puget Crimson	9.78 a	3.36 de	10.47 ab
Puget Reliance	8.23 b–d	3.37 c–e	9.63 b–d
Shuksan	8.26 b–d	3.39 c–e	10.08 a–c
Stolo	7.90 c–e	3.50 ab	8.08 ef
Sweet Bliss	7.73 c–e	3.35 e	11.06 a
Sweet Sunrise	8.42 bc	3.54 a	7.58 f
Tillamook	7.74 c–e	3.44 b–e	9.04 c–e
Totem	8.51 bc	3.47 a–d	8.92 c–e
Valley Red	7.30 e	3.47 a–c	8.60 d–f

²Means within a column followed by the same letter are not significantly different, $P > 0.05$, by least significant difference test.

Table 5. Anthocyanin concentrations (mg of cyanidin-3-glucoside/100 g) of fruit ‘Marys Peak’ and three standard strawberry cultivars harvested in 2014 from a trial at Oregon State University–North Willamette Research and Extension Center. Anthocyanins are listed in the order of high-performance liquid chromatography elution. Values in parentheses are proportions of the total anthocyanins.

Cultivar	Cyanidin-3-glucoside	Pelargonidin-3-glucoside	Pelargonidin-3-rutinoside	Cyanidin-3-malonyl-glucoside	Pelargonidin-3-malonyl-glucoside	Total
Marys Peak	1.07 (4.4)	21.12 (87.2)	0.97 (4.0)	0.05 (0.2)	1.01 (4.2)	24.22
Sweet Sunrise	2.30 (6.6)	30.14 (87.0)	2.12 (6.1)	0.02 (0.2)	0.05 (0.1)	34.63
Totem	0.90 (2.2)	36.26 (86.6)	0.79 (1.9)	0.22 (0.5)	3.68 (8.8)	41.85
Tillamook	0.92 (3.5)	24.69 (93.5)	0.67 (2.5)	0.09 (0.3)	0.04 (0.1)	26.40

Table 6. Mean dates when harvest passed 5%, 50%, and 95% of total yield and the length of the harvest season for ‘Marys Peak’ and other strawberry cultivars picked in the same years from trials at Oregon State University–North Willamette Research and Extension Center (OSU-NWREC) and at Washington State University (WSU)–Puyallup Research and Extension Center.

	Harvest season				Length of harvest season (d)
	<i>n</i> ^z	5%	50%	95%	
OSU-NWREC					
Sweet Sunrise	6	22 May	1 June	14 June	23
Hood	2	28 May	3 June	14 June	17
Benton	2	31 May	7 June	17 June	17
Puget Reliance	2	31 May	7 June	17 June	18
Shuksan	2	3 June	7 June	14 June	11
Galletta	2	6 June	9 June	20 June	14
Charm	8	2 June	10 June	20 June	18
Totem	10	4 June	10 June	20 June	16
Tillamook	8	3 June	12 June	22 June	19
Stolo	2	6 June	13 June	5 July	29
Marys Peak	10	7 June	14 June	26 June	20
Rainier	2	15 June	18 June	25 June	11
WSU–Puyallup					
Sweet Sunrise	2	—	7 June	—	—
Charm	2	—	9 June	—	—
Hood	2	—	10 June	—	—
Puget Reliance	2	—	12 June	—	—
Marys Peak	2	—	12 June	—	—
Tillamook	2	—	13 June	—	—
Totem	2	—	14 June	—	—
Puget Crimson	2	—	21 June	—	—
Valley Sunset	2	—	23 June	—	—

^zThe number of trials where the cultivar was harvested in the same years as ‘Marys Peak’ and that were included in the mean.

viruses by enzyme-linked immunosorbent assay and negative for *Strawberry mottle*, *Strawberry veinbanding*, *Strawberry crinkle*, *Strawberry pallidosis*, *Strawberry polerovirus-1*, *Strawberry latent ringspot*, *Beet pseudo yellows*, and *F. chiloensis latent viruses* in reverse transcription-polymerase chain reaction assays, phytoplasmas in polymerase chain reaction assays, and have indexed negative when grafted onto *Fragaria vesca* L. cv. Alpine. Further information on licensing or a list of nurseries propagating ‘Marys Peak’ are available on written request to C. Finn, as is contact information for commercial laboratories that are able to genetically fingerprint vegetative tissue to determine whether a genotype is ‘Marys Peak’. The USDA-ARS does not have commercial quantities of plants to distribute. In addition, plants of this release have been deposited in the National Plant Germplasm System, accession number CFRA 2296 (PI 682649), where they will be available for research

purposes, including development of new cultivars.

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