

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
WASHINGTON, D.C.

and

OREGON AGRICULTURAL EXPERIMENT STATION
CORVALLIS, OREGON

and

WASHINGTON AGRICULTURAL RESEARCH CENTER
PULLMAN, WASHINGTON

NAMING AND RELEASE OF THE STRAWBERRY CULTIVAR VALLEY RED

The USDA, Agricultural Research Service, the Oregon Agricultural Experiment Station, and the Washington Agricultural Research Center announce the naming and release of 'Valley Red,' a high-yielding, medium-sized, easily-capped, dark-colored cultivar with very high processed fruit quality.

Valley Red, a June-bearing strawberry (*Fragaria* × *ananassa* Duch.), was tested as ORUS 1790-1 and was selected in 1996 from the cross 'Anaheim' × 'Puget Reliance.' Valley Red has been tested in multiple trials in Oregon as well as Washington and British Columbia.

In Oregon, Valley Red has had a comparable or a higher yield than the industry standard 'Totem' but is generally lower yielding than 'Tillamook.' In trials at Washington State University (WSU)-Puyallup, Valley Red had the highest cumulative yield; however, it was only significantly greater than 'Sumas.' Further north at WSU-Mount Vernon, Valley Red tended to have the highest yields, but it was not significantly different from the other cultivars in the trial. In trials with Agriculture and Agri-Foods Canada in Abbotsford, BC, Valley Red was higher yielding than 'Puget Reliance' in 2005 and then 'Pinnacle,' 'Tillamook,' 'Puget Reliance,' and 'Totem' in 2006. While not always significantly different, the yield for Valley Red has always been at or near the top when compared with named cultivars in any Pacific Northwest trial.

At WSU-Puyallup, Valley Red's fruit weight has heavier berries than the standard 'Totem.' Generally, 'Tillamook' and 'Pinnacle' have heavier fruit than Valley Red; however, this was not the case in the 2007 planting where the first year of harvest for Valley Red had larger fruit than 'Tillamook.' When Valley Red is first observed in the field it is often perceived to produce fruit smaller than ideal for economical harvesting; however, while the primary berry size is not large, the fruit size decreases in average fruit weight more slowly than 'Tillamook' and 'Puget Reliance' and similarly to 'Totem.' This consistency of fruit size is one of the reasons that Valley Red was reviewed favorably in grower trials.

Valley Red has scored well in subjective evaluations of fruit characteristics. The fruit appearance, capping and flavor were scored similarly to that of 'Puget Reliance,' 'Redcrest,' 'Totem,' and 'Tillamook.' While the Valley Red flavor was scored similarly to the other cultivars, the flavor is closer to that of 'Puget Reliance,' one of its parents, than 'Totem' that has a more acidic, tart, flavor. Repeated evaluations of fruit flavor by researchers and industry members have characterized the flavor of Valley Red as being mild and sweet with a pleasant strawberry flavor that is appealing to most evaluators. Fruit firmness in Oregon was rated similar to 'Totem,' and firmer than 'Puget Reliance.' Valley Red's firmness was evaluated at WSU-Puyallup using objective penetrometer measurements and was found to be softer than 'Pinnacle,' firmer than 'Sumas,' and comparable to 'Tillamook' and 'Puget Summer.' In 2002, Valley Red was firmer than 'Puget Reliance,' but was comparable in 2003. Valley Red has fruit that is similar in external color to 'Redcrest' and 'Totem,' and is darker than 'Tillamook' and 'Puget Reliance.' The internal color was comparable to or darker than 'Totem' and darker than 'Puget Reliance.'

Valley Red fruit consistently ripens with its parent 'Puget Reliance' and slightly ahead of 'Totem' and 'Tillamook.' Valley Red consistently grouped with the other early mid-season cultivars, 7 to 10 d earlier than 'Puget Summer.'

Valley Red plants are vigorous. The uniformity of plant stature and vigor has been repeatedly noted over a wide range of seasons and locations. The plants do not have as open a habit as 'Tillamook' or 'Pinnacle' nor as dense as 'Totem,' and they were deemed to be commercially acceptable for economical hand harvesting in commercial trials.

'Puget Reliance,' a parent of Valley Red, has been noted for its "durable" plants that tolerate virus well; Valley Red seems to have the same characteristic. Other than two spray applications during bloom to control botrytis fruit rot (*Botrytis cinerea* Pers.:Fr.), the plantings received no fungicides or insecticide applications. Under this spray program, Valley Red did not show any particular susceptibility to pests. The percent fruit rot tended to be low and comparable to that of 'Totem.'

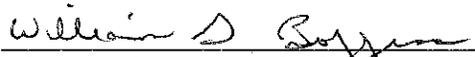
The most outstanding characteristics of Valley Red are its high yield of large, attractive, very uniformly sized and shaped fruit that are well suited for processing. While Valley Red might be grown for local fresh sales, it is too perishable to be well suited to the wholesale fresh market.

Valley Red plants for propagation have tested negative for tomato ringspot, strawberry mild yellow edge and tobacco streak viruses by ELISA and have indexed negative on grafting to *F. vesca* and *F. Virginians*.

Valley Red is not patented. However, when this germplasm contributes to the development of a new cultivar, hybrid, or germplasm, it is requested that appropriate recognition be given to the source. Further information or a list of nurseries propagating Valley Red is available on written request to Chad Finn; USDA-ARS, Northwest Center for Small Fruit Research; Horticultural Crops Research Laboratory; 3420 NW Orchard Ave.; Corvallis, Oregon 97330. The USDA-ARS

does not have plants for sale. In addition, genetic material of this release has been deposited in the National Plant Germplasm System where it will be available for research purposes, including development and commercialization of new cultivars.

Signatures:



Director, Oregon Agricultural Experiment Station
Oregon State University

3/31/09
Date



Director, Washington Agricultural Research Center
Washington State University

4/9/09
Date



Deputy Administrator, Crop Production and Protection
Agricultural Research Service, U.S. Department of Agriculture

9/4/09
Date