

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

NOTICE TO FRUIT GROWERS AND NURSERY GROWERS OF RELEASE OF THE  
**HoneySweet PLUM POX VIRUS RESISTANT (PPVR) PLUM**

The Agricultural Research Service, U.S. Department of Agriculture announces the release of **HoneySweet PPVR plum**. The purpose of this release is to provide a high quality *Prunus domestica* plum that is resistant to *Plum pox virus* (PPV), the causal agent of sharka disease. **HoneySweet PPVR plum** is also highly resistant to black knot disease caused by the fungus *Apiosporina morbosa*.

**HoneySweet PPVR plum** originated as a seedling from open pollination of 'Bluebyrd' plum. **HoneySweet PPVR plum** was originally selected *in vitro* as a regenerated shoot developed from a seed of Bluebyrd that had been transfected with the *Agrobacterium tumefaciens* bacterium that transferred a DNA segment carrying the PPV coat protein gene and NPTII and GUS maker genes. **HoneySweet PPVR plum** has been evaluated for PPV resistance in Skierniewice, Poland, Lyria, Spain, Bistrita, Romania, and Prague, Czech Republic and been shown to be highly resistant to PPV with no reports of natural aphid-vectored infection. Graft inoculation of **HoneySweet PPVR plum** with PPV-infected budwood has shown only limited infection near the site of grafting with no systemic spread. Resistance is based on RNA interference. **HoneySweet PPVR plum**, a genetically engineered cultivar, was deregulated by the U.S. Animal and Plant Health Inspection Service (APHIS), reviewed by the U.S. Food and Drug Administration, and registered by the Environmental Protection Agency (EPA). **HoneySweet PPVR plum** is also highly resistant to black knot disease showing no symptoms under conditions of high infection pressure. **HoneySweet PPVR plum** appears to have inherited black knot resistance from the ARS-released plum cultivar 'Bluebyrd', its seed parent, which is also highly resistant to black knot.

**HoneySweet PPVR plum** trees have an upright growth habit and moderate level of fruiting-spur development. **HoneySweet PPVR plum** has cropped well in all test locations and is expected to be adapted to *P. domestica* plum growing regions world-wide. In Kearneysville, West Virginia depending on weather conditions, **HoneySweet PPVR plum** fruit ripen in mid-August to early September or about 10-20 days prior to the ripening of 'Stanley' plum. **HoneySweet PPVR plum** fruit are medium to large in size with an average weight of 60 grams (about 2 oz) and average dimensions of 43-45 mm (about 1.75") in diameter and 52 mm (about 2") in length. Flesh is yellow, firm, juicy, and sweet. Sugar content as measured in degrees brix is in the range of 20-22 ° with a pleasing flavor balance. The skin is a deep purple with a waxy overcoat. The stone is mostly free from the flesh with only a small area of adhesion to the flesh.

**HoneySweet PPVR plum** trees bloom in Kearneysville West Virginia between late March and mid-April depending on weather conditions or about 5-10 days earlier than the cultivar 'Stanley'. **HoneySweet PPVR plum** is self-incompatible. It has consistently fruited in mixed *P. domestica* plum variety plantings. In controlled crosses, when **HoneySweet PPVR plum** was used as a female parent, it has shown to be compatible with *P. domestica* plums 'Castelton' 'Jojo', 'LongJohn', 'Victory', 'Vision' and 'C11' [US National Plant Germplasm System Davis, California, accession DPRU 2266]. **HoneySweet PPVR plum** has also produced fruit in crosses with 'Anna Spath', 'Cacanska Lepotica', 'Cacanska Rana', 'President', and 'Reine Claude de Bavay'. Used in conventional breeding, **HoneySweet PPVR plum** transfers PPV resistance to its progeny as a single gene dominant trait making it useful as a parent for

developing additional PPV resistant *P. domestica* plum cultivars. Since, as a *P. domestica* species, **HoneySweet PPVR plum** is a hexaploid (six sets of chromosomes), it is sexually incompatible with most stone fruit (*Prunus*) species including peach and nectarine (*P. persica*), 'Japanese' plum (*P. salicina*) apricot (*P. armeniaca*), sweet (*P. avium*) and sour (*P. cerasus*) cherry, and almond (*P. dulcis*).

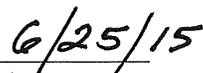
The Agricultural Research Service has no trees of **HoneySweet PPVR plum** for distribution. A limited amount of heat-treated budwood of **HoneySweet PPVR plum** is available from Clean Plant Center Northwest – Fruit Tree (CPCNW-FT), Hamilton Hall, 24106 N Bunn Rd., Prosser, WA 99350-8694 (<http://healthyplants.wsu.edu/bud-buying>). Genetic material of this release will be deposited in the National Plant Germplasm System (NPGS) where it will be available for research purposes, including development and commercialization of new cultivars.

The recipient of genetic material from CPCNW-FT of **HoneySweet PPVR plum**, including but not limited to, buds, pollen, and seeds is subject to the following terms and conditions:

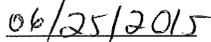
1. Recipient is granted a nonexclusive, royalty-free license, in the United States of America, under U.S. Plant Patent No. PP15,154, to breed with **HoneySweet PPVR plum** and to propagate, grow, market and sell **HoneySweet PPVR plum** trees and fruit.
2. Recipient shall NOT export or distribute **HoneySweet PPVR plum** trees, propagative material, fruit or progeny of **HoneySweet PPVR plum** outside of the United States of America. Currently, **HoneySweet PPVR plum** is not appropriate for organic production.
3. Recipient may not transfer trees, budwood or other propagative materials of **HoneySweet PPVR plum** or its progeny, except to another person or entity ("subsequent recipient") that is willing to agree to conditions 1-4 stated in this Release Notice.
4. Recipient agrees that all such transfers will include a copy of this Release Notice affixed to the transferred materials along with the label "**HoneySweet PPVR plum.**"
5. On compliance with requirements 3 and 4, recipient shall have no further obligations regarding the actions of the subsequent recipient.

USDA represents and warrants that it has the authority to issue licenses under U.S. Plant Patent No. PP15,154. USDA makes no warranties as to the merchantability or fitness of **HoneySweet PPVR plum**, its progeny or fruit for any particular purpose, or any other warranties expressed or implied.

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

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Assistant Administrator, Office of Technology Transfer  
Agricultural Research Service, U.S. Department of Agriculture

  
\_\_\_\_\_  
Date