



APPLICATIONS UNDER EXAMINATION

PLUM

PLUM (*Prunus domestica*)

Proposed denomination: 'Vandor'
Previously proposed denomination: 'V70032'
Application number: 07-6071
Application date: 2007/12/21
Applicant: University of Guelph, Guelph, Ontario
Breeder: Jayasanter Subramanian, University of Guelph - Vineland Campus, Vineland Station, Ontario

Varieties used for comparison: 'Valerie', 'Vanette', 'Bluefre' and 'Stanley'

Summary: 'Vandor' differs from the reference varieties 'Valerie', 'Vanette', 'Bluefre' and 'Stanley' mainly in tree height, wood bud position relative to the shoot, anthocyanin colouration of the shoot tip, pubescence on the upper side of the leaf blade, time of flowering, petal arrangement, time of ripening, depth of suture and size of the stone relative to the size of the fruit. The trees of 'Vandor' are short whereas the trees of 'Valerie' are medium in height and the trees of 'Vanette' and 'Stanley' are medium to tall. The wood bud of 'Vandor' are markedly held out whereas they are slightly held out on 'Valerie' and 'Vanette' and adpressed on 'Bluefre' and 'Stanley'. The intensity of anthocyanin colouration of the current season shoot tip of 'Vandor' is weak whereas it is medium to strong on 'Valerie' and medium on 'Vanette', 'Bluefre' and 'Stanley'. The density of pubescence on the upper side of the leaves of 'Vandor' is weak whereas it is absent on the reference varieties. 'Vandor' flowers early to mid-season whereas 'Stanley' flowers late. The petals of 'Vandor' are touching whereas they are free on the reference varieties. 'Vandor' ripens early to mid-season whereas 'Valerie' ripens very early to early, 'Bluefre' ripens late and 'Stanley' ripens mid-season to late. The suture on the fruit of 'Vandor' is medium in depth whereas it is shallow on 'Vanette' and deep on 'Bluefre'. The stone of 'Vandor' is small relative to the size of the fruit whereas the stone of 'Valerie' and 'Vanette' is medium size in relation to the fruit and the stone of 'Bluefre' and 'Stanley' is large relative to the size of the fruit.

Description:

TREE: weak vigour, tendency to sucker absent, short, narrow to medium width, sparse to medium density of head, upright to spreading growth habit

ONE-YEAR OLD SHOOT: semi-erect attitude, thin, reddish brown, medium intensity of colour on the sun side, weak to medium density of pubescence, few lenticels, short to medium length spurs, very few or no flowers

WOOD BUD: small to medium size, conical, pointed apex, markedly held out from shoot, small to medium size bud support

CURRENT SEASON'S SHOOT: medium to strong density of pubescence, weak anthocyanin at tip

LEAF: horizontal attitude, broad obovate shape, nearly right angle to obtuse angle of the tip, mucronate apex, U-shaped base, medium to strong density of pubescence on lower side

LEAF MARGINS: crenate, no secondary serrations

UPPER SIDE OF LEAF BLADE: dark green, medium glossiness, weak pubescence

LEAF BLADE MARGIN: serrate, shallow to medium depth indentations

PETIOLE: medium density of pubescence on the upper side, weak density of pubescence on the lower side, medium depth of groove

GLANDS: usually two, positioned on the petiole

FLOWER: early to mid-season flowering, medium to large

PEDUNCLE: medium to thick, medium density of pubescence

RECEPTACLE: medium depth, no pubescence on the inner surface at white bud stage, weak pubescence on the outer surface

SEPAL: adpressed to the petals, elliptic, pubescence present on inner and outer surfaces

PETAL: white on upper and lower surfaces, no flowers with double petals, touching, obovate shape, medium waviness of margins, wide angle at base, dentate upper margin, no pubescence on inner and outer surfaces or margins

PISTIL: stigma positioned level with anthers, no supplementary pistils, very weak pubescence on ovary and style

ANTHER: yellowish to yellow before dehiscence, self-incompatible

FRUIT: ripens early to mid-season, medium size, rounded, largest diameter towards middle, symmetrical, medium depth of suture, constant regularity, depressed apex, no pubescence at apex

STALK: sparse pubescence, medium to deep cavity

FRUIT SKIN: medium bloom, medium thickness, reticulation of skin present, purple ground colour, reddish dots on the skin

FRUIT FLESH: amber, medium to firm, medium texture, medium juiciness, medium acidity, medium sugar content

STONE: not adherent to semi-adherent to flesh, small in relation to the size of the fruit, ovate in lateral view, sub-globular to flattened in ventral view, round-elliptical in basal view, symmetrical in profile and in ventral view, maximum width towards middle, outgrowing keel partly developed, granular texture of lateral surfaces, entire dorsal groove, fusion of lateral groove margins absent, medium sharpness of edges, medium width of ventral zone and stalk-end, right angle or nearly right angle at stalk-end, rounded apex (pistil end)

REACTION TO DISEASES: moderately resistant to leaf spot or shot hole (*Coccomyces* spp.) and brown rot (*Sclerotinia* spp.), resistant to moderately resistant to black knot (*Dibotryon morbosum*) and brown spot (*Monilinia fructicola*).

REACTION TO INSECTS: resistant to moderately resistant to aphids and leafrollers, moderately resistant to European red mites and peach tree borer, and moderately resistant to moderately susceptible to San Jose scale (*Azpidiotus perniciosus* C.)

Origin and Breeding: 'Vandor' arose from the cross of two European-type plums, 'Valor' and 'California Blue', conducted in 1970 at the Horticultural Research Institute of Ontario, Vineland Station, Ontario. Progeny was collected, stratified, germinated and planted out on their own rootstock and tested in an evaluation block where subsequent selection took place. Selection of one line, designated 'V70032', was made in 1977 which was advanced to further tests and propagated onto commercial rootstock. Additional plots were planted at Vineland in 1979, 1985 and 1992 for further evaluation and testing.

Tests and Trials: The tests and trials for 'Vandor' were conducted at the research facility of the University of Guelph, Vineland Station, Ontario during the summers of 2007 and 2008. There were six trees of the candidate variety and 4 trees of the reference varieties. The trees were planted in 1992, growing on Myrobalan B rootstock. Measured characteristics were based on a minimum of 20 measurements.

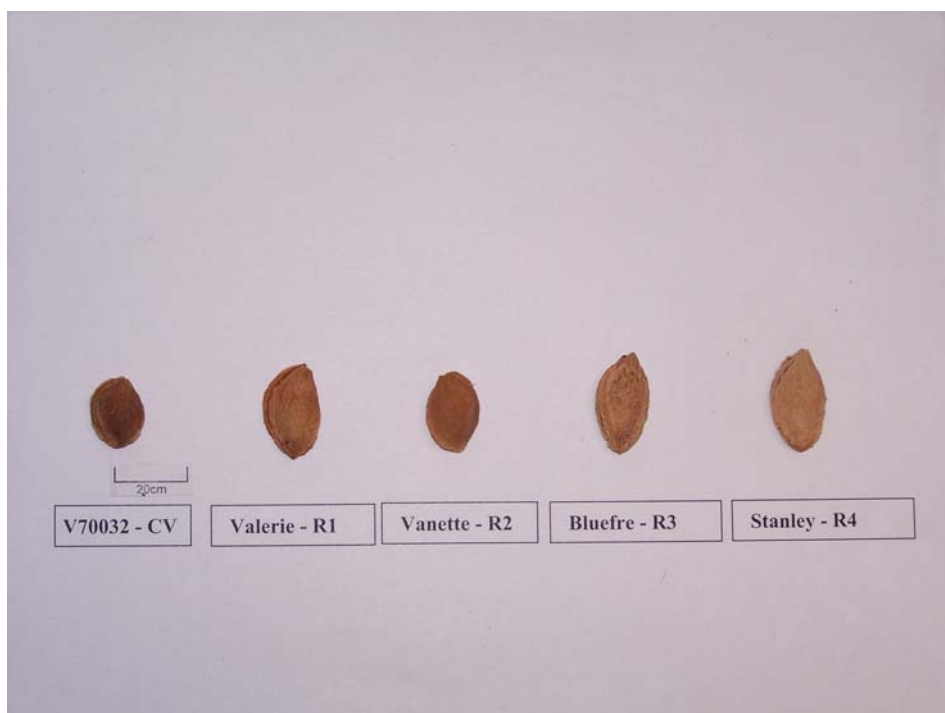
Comparison table for 'Vandor'

	'Vandor'	'Valerie'*	'Vanette'*	'Bluefre'*	'Stanley'*
<i>Internode length of one year old shoot (mm)</i>					
mean	29.95	37.2	33.7	30.8	35.3
std. deviation	1.77	6.01	7.11	4.07	6.17
<i>Petiole length (mm)</i>					
mean	22.79	26.78	20.29	14.87	23.20
std. deviation	1.67	3.02	2.51	2.45	3.26

*reference varieties



Plum: 'Vandor' (left) with reference varieties 'Valerie' (centre left), 'Vanette' (centre), 'Bluefre' (centre right) and 'Stanley' (right)



Plum: 'Vandor' (left) with reference varieties 'Valerie' (centre left), 'Vanette' (centre), 'Bluefre' (centre right) and 'Stanley' (right)