Table Grape ‘Jinok’

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‘Jinok’ (‘Delaware’ × ‘Campbell Early’) is a new table grape cultivar showing early-ripening berries with uniform coloring of skin and high quality. ‘Jinok’ has a mean bud burst on 11 Apr., flowering on 24 May, and fruit maturity on 23 Aug. The mean berry weight is 6.0 g, and mean soluble solids are 16.6 °Brix. The skin color is black with abundant bloom and the flesh firmness is soft and juicy.

Origin

‘Jinok’ resulted from a cross between and ‘Delaware’ (*Vitis* sp.) and ‘Campbell Early’ (*Vitis labruscana*) with the intention of producing high-quality table grapes with the flavor of ‘Campbell Early’ at the National Horticultural Research Institute (NHRI), RDA, Korea, in 1983. It was preliminarily selected in 1997, tested in seven sites from 1998 to 2004 as ‘Wonkyo RA-12’, and named in 2004. Three randomized plots with three vines were planted and tested to evaluate characters of vines and fruit production in each site for 3 years from 2002 to 2004. ‘Jinok’ has good quality with high total soluble solids (TSS) compared with ‘Campbell Early’, low titratable acidity, attractive black skin color, abundant bloom, and no skin cracking.

Description

Flowers. Flowers of ‘Jinok’ are perfect and self-fertile, blooming at midseason (on 24 May in Suwon, Korea) after midseason bud break (on 11 Apr.).

Fruits. Fruits of ‘Jinok’ have black skin when fully ripened. Fruits are medium in size averaging 6.0 g, 0.5 g smaller than that of ‘Campbell Early’, and are round to slightly ovate. When the grapes are fully ripened, the aroma of ‘Jinok’ is very similar to that of ‘Campbell Early’ with pronounced balanced foxy flavor. ‘Jinok’ ripens between 20 Aug. and 25 Aug. in Suwon, Korea, 4 d earlier than

‘Campbell Early’. It is considered an early-season cultivar. The mean TSS of ‘Jinok’ is 16.6 °Brix, ≈1 to 2 °Brix higher than ‘Campbell Early’. Juice soluble solids are usually higher and fruit pH is usually lower than ‘Campbell Early’ (Table 1). The balance between sugar (16.6 °Brix) and acidity (0.29% titratable acidity) is excellent. These indicate that ‘Jinok’ can accumulate satisfactor amounts of sugar while maintaining sufficient acidity. Its skin is slip, pulpy, and medium in thickness and there is no skin splitting in rainfall. The flesh texture is medium and juicy. It has two to four seeds of 6.2 mm in length per berry.

Clusters. The clusters are medium in size (320 to 380 g with 55 to 65 berries each), conical, sometimes shouldered, and tight in berry setting (Fig. 1). The cluster appearance is excellent with uniform shape and black skin color. Incidence of berry drop is low during storage and transportation after harvest. Because of the side effect like hardening the peduncle, rachis, and pedicels in clusters, gibberellin treatment to induce seedlessness is not applicable in ‘Jinok’ grape.

Vines. Own-rooted vines are vigorous and very cold-hardy with no bud damage at –20 °C in Suwon, Korea. Vines have uniform cluster size and ripening period with excellent berry setting by spur pruning.

Diseases. These grapes are resistant to bunch rotting diseases and have a long shelf life with constant quality even when overripe. The foliage is moderately resistant to anthracnose (*Elsinoe ampelina* Shear) and resistant to downy mildew (*Plasmopara viticola* Berl. & de Toni). The trunk is also moderately resistant to crown gall (*Agrobacterium vitis*).

‘Jinok’ is an early-season table grape, which is distinguished by its superior fruit quality combined with good productivity, partial resistance to several diseases, and cold-hardiness superior to its acclaimed parent, ‘Campbell Early’. Although ‘Campbell

Early’ occupies more than 75% of the total grape cultivation area in Korea, it causes low price of grapes in the markets by shortening the harvesting period. Therefore, it is recommended for planting as an alternative to ‘Campbell Early’, the leading table grape in Korea. ‘Jinok’, which means “wonderful pearl” in Korean, is the seventh table grape cultivar named by the NHRI. It followed the release of ‘Cheongsoo’ (Lee et al., 1994), ‘Hongdan’ (Suh et al., 1995), ‘Tamnara’ (Park et al., 2004a), ‘Heukgoosul’ (Park et al., 2004b), ‘Hongisul’ (Park et al., 2006a), and ‘Heukboseok’ (Park et al., 2006b).

Availability

‘Jinok’ has been registered as a new variety for the protection in Korea in Apr. 2007. Requests for cuttings for research purposes may be addressed to Haekeun Yun (hekeun@rda.go.kr). Vines are available for sale at the Korean Society for Fruit Tree Nursery (4-38 Seonghwang-dong Cheonan, 330-130, Korea).

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Fig. 1. Fruits of grape cultivar Jinok.

Table 1. Fruit characteristics of grape cultivar Jinok and its parent ‘Campbell Early’.

Cultivar	Maturing date	Cluster wt (g)	Berry skin color	Berry wt (g)	Soluble solids (°Brix)	Acidity (%)
Jinok	23 Aug.	328 ± 24 ^z	Black	5.5 ± 0.4	16.6 ± 1.2	0.29 ± 0.05
Campbell Early	27 Aug.	350 ± 14	Black	6.0 ± 0.5	14.3 ± 0.7	0.47 ± 0.08

^zMean ± SD.

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