

# 'Choha', an Early-maturing and High-quality Apricot

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**ABSTRACT** 'Choha' was released by the National Horticultural Research Institute in 1997 as a new early-maturing and high-quality apricot variety, which originated from the crossing of 'N.Y. 472' and 'Early Orange' in 1986. This variety was tested as 'Wonkyo Sa-05' at 4 areas for 3 years from 1995. 'Choha' is resistant to fruit cracking by rainy spells just before fruit maturing. Fruits mature in late June, earlier than any other varieties. The content of soluble solids is 12.5 °Bx and fruit acidity is low. Fruits are relatively large, about 60g in weight.

**Additional key words:** fruit breeding, new variety,

## Introduction

In Korean temperate fruit production, apricot is a minor fruit, just 262 ha in total cultivation area (Ministry of Agriculture and Forestry, 1997), and the fruits have been consumed only as fresh ones.

In the view of cultivated varieties, Korean native and old Japanese ones, such as 'Heiwa', 'Hiroshimaomi', 'Niigataomi', 'Waseomi', and 'Yamagata No. 3' are commonly grown but their fruit qualities as fresh fruits are not good in that sugar content is low and fruit acidity is high. In addition, rainy spells just before and during harvesting time frequently cause serious fruit cracking. Overcoming of fruit cracking, improving of fruit quality, and extending of production season are main objectives of the apricot breeding programs at National Horticultural Research Institute (NHRI) in Suwon.

Although 4 peach and 1 nectarine varieties were released by the stone fruit breeding programs of NHRI since past early 60s (Kang et al., 1986; Kim et al., 1978), any apricot variety had not released until 1997. Recently, NHRI released an early maturing, cracking-resistant, and high quality 'Choha' apricot.

## Material and Methods

To achieve breeding goal for the development of new apricot varieties with low acidity, fruit cracking resistance, and high sugar content, a cross of 'N.Y. 472' × 'Early Orange' was made by S. J. Kang in 1986. After emasculation of whole blossoms within female parent trees, artificial pollination was done.

Young seedlings of the cross were transplanted at breeding block in 1988. Preliminary selection of 'Wonkyo Sa-05' was done by S. J. Kang and K. H. Chung in 1992.

This selection was further tested for regional adaptability at Suwon, Hwaseong, Chungju, Seungju, and Taegu from 1995 to 1997. Three top-grafted trees at each test site were used for the test. Data on evaluation were gathered yearly from each site. General characteristics of fruits and tree were investigated at breeding block in NHRI.

## Results and Discussion

### Origin

'Choha' apricot (*Prunus armeniaca* L.) originated from the crossing of 'N.Y. 472' and 'Early Orange' in 1986 at Horticultural Experiment Station, which was the former organization of NHRI. In 1992, 'Choha' was selected preliminarily and then tested as 'Wonkyo Sa-05' at 4 areas for 3 years from 1995. In 1997, it was named and released.

### Description

'Choha', the earliest maturing variety in Korea ripens about 70 days after full bloom, typically in late June at Suwon located in the middle part of Korean peninsula (Table 1).

Trees are medium in vigor and semi-upright in shape. Shape of leaf blade is broadly ovate, apex is acuminate, and base is truncate. Nectaries on leaf petiole are globose, large, and more than 3 in the number of nectary.

Fruit is medium size, generally larger

than 60g in fruit weight and the content of soluble solids is above 12.5 °Bx. Fruit shape is ovoid. At maturity, fruit skin color is bright orange with 50% speckled reddish blush on the sunny side (Fig. 1). The orange flesh is medium-firm, sweet, and does not adhere to the pit (Table 2). Mealiness of fully ripened fruits was not observed.

'Choha' seems to be resistant to fruit cracking by rain just before maturity and moderately resistant to brown rot [*Monilinia fructicola* (Wint.) Honey] and bacterial leaf spot [*Xanthomonas campestris* pv. *pruni* (Smith) Dye].

Considering fruit quality and resistance to cracking, 'Choha' is the most proper variety for fresh fruit production under Korean climatic condition.

### Availability

Limited amounts of virus non-indexed budwood of research purposes can be obtained from National Horticultural Research Institute.

추가 주요어 : 과수육종, 신품종

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## 식미 우수한 조생종 살구 '初夏'

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## 초 록

'初夏'는 농촌진흥청 원예연구소에서 1986년에 'N.Y. 472'에 'Early Orange'를 교배하여 얻은 교잡종자로부터 유래된 조생, 내열과성 살구 품종으로, 1992년에 1차선발하고 1995년부터 3년간 '원고 사-05' 계통명으로 지역적응성을 검토하여 1997년에 최종선발 및 명명된 살

**Table 1.** General characteristics of 'Choha' apricot.

Variety	Full bloom date	Fruit maturing date	Tree vigor	Tree shape	Nectaries on petiole	Size of nectaries
Choha	12 Apr.	28 June	medium	semi-upright	more than 3	large
Hiroshimaomi	13 Apr.	5 July	strong	semi-upright	nearly 1	small

**Table 2.** Fruit characteristics of 'Choha' apricot.

Variety	Fruit shape	Skin color	Fruit weight (g)	Soluble solids (°Bx)	Acidity
Choha	ovoid	reddish orange	60	12.5	low
Hiroshimaomi	elliptic	orange	65	8.5	much

구 품종이다. 이 품종은 성숙전 강우에 의한 열과 및 당도 저하가 없으며, 과피가 적황색으로 착색되어 외관이 우수하고, 식미가 좋다.

숙기는 6월 하순으로 우리나라의 살구 재배 품종 중에서는 가장 빠르며, 당도는 12.5 °Bx로 높고, 산미가 적으며, 과중은 60g 내외로 조생종 살구 품종으로서 큰 편이다.



**Fig. 1.** Fruit of 'Choha' apricot.