‘Dorada’ Apricot

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‘Dorada’ is a late ripening apricot cultivar (Prunus armeniaca L.) with high productivity, good fruit quality and an attractive light-orange fruit suitable for the European markets. This cultivar is well adapted to the climatic conditions at the mountains of Spain. ‘Dorada’ is self-compatible and possesses a high degree of autogamy. ‘Dorada’ fruit are free stone with a light orange skin color and a yellow-light orange flesh color that make them very attractive. This cultivar is also characterized by its good aptitude for canning.

Origin

‘Dorada’ resulted from a cross made in 1992 at Murcia (Spain) between the French cultivar, of unknown origin, ‘Bergeron’, and the Spanish cultivar, of unknown origin, ‘Moniquí’ (Fig. 1). This cross was made within the apricot breeding program at CEBAS–CSIC in Murcia (Spain) with the objective of obtaining good fruit quality as well as canning aptitude.

Description

Tree description. ‘Dorada’ was originally selected as a seeding tree on its own roots and then grafted onto apricot seedlings (3 repetitions). Trees of ‘Dorada’ are large and medium vigorous with a moderate spread. It has a moderate density of flowers (22.9 flowers/cm² of shoot) mainly localized on fruiting spurs of two-year-old branches. Flower density was calculated from the number of flowers on productive shoots, which were about 1.2 m long and where basal diameter was measured. Flower density was expressed as flowers/cm² of shoot basal section, average of three repetitions. ‘Dorada’ cultivar showed a very high fruit set (50.5%) (Table 1), this parameter being calculated in the same shoots as flower density by counting the fruit and dividing by the number of flowers. ‘Dorada’ is characterized by large fruit and very high productivity in comparison with traditional Spanish apricot cultivars. Tree architecture greatly facilitates pruning (reduced branching habit).

PPV resistance. Sharka disease caused by the plum pox virus (PPV) is a serious limiting factor for temperate fruit production in those areas that are affected (Köllber, 2001). All apricot cultivars traditionally grown in Europe are susceptible to this disease (Martínez-Gómez et al., 2000). Evaluation of PPV resistance in controlled greenhouse conditions (Martínez-Gómez and Dicenta, 1999) has not been tested in ‘Dorada’ because none of their parents are known as resistant varieties.

Time of bloom. ‘Dorada’ has medium-high chilling requirements for breaking dormancy, about 1,050 ± 70 chill units (Richardson et al., 1974). The growing degree hour (GDH) requirements (Richardson et al., 1975) between the end of the rest period and full bloom were 5000 ± 500. Under our experimental conditions in Murcia (southeast of Spain, 37°N latitude, 1°W longitude, and 450 m altitude) ‘Dorada’ full bloom occurred about 14 Mar. (+4 d as average from 3 years), a medium-late flowering date among traditional Spanish apricot cultivars (Table 1).

Self-compatibility and autogamy. Fruit set percentage averaged 50.5% ± 3% over 3 years. The self-compatibility of this cultivar was

Bergeron
(French cultivar)

Dorada

Moniquí
(Spanish cultivar)

Fig. 1. Pedigree of ‘Dorada’ apricot.

Table 1. Comparative analysis of tree and fruit characteristics of ‘Dorada’, the Spanish cultivar ‘Búlida’, the French cultivar ‘Bergeron’, and the North American cultivar ‘Orange Red’.

| Characteristics               | ‘Dorada’ | ‘Búlida’ | ‘Bergeron’ | ‘Orange Red’ |
|-------------------------------|----------|----------|------------|--------------|
| Tree                          |          |          |            |              |
| Vigour                        | Vigorous | Very vigorous | Very vigorous | Vigorous     |
| Flower density (flower/cm²)   | 22.9     | 42.0     | 31.1       | 5.1          |
| Flowering date (full bloom)   | 14 Mar.  | 8 Mar.   | 13 Mar.    | 15 Mar.      |
| Fruit set (%)                 | 50.5     | 31.6     | 39.4       | 13.6         |
| Yield                         | Very high| High     | High       | Medium       |
| Fruit                         |          |          |            |              |
| Ripening date                 | 22 June  | 26 May   | 19 June    | 28 May       |
| Fruit size (g)                | 73.1     | 59.8     | 70.7       | 61.0         |
| Attractiveness                | 8.3      | 6.7      | 7.2        | 9.0          |
| Sugar (*Brix)                 | 13.1     | 10.62    | 11.90      | 14.22        |
| Acidity*                      | 1.24     | 1.29     | 1.73       | 1.23         |

*Titratable acidity expressed as grams of malic acid per 100 mL.
in peach were screened for polymorphism of ‘Dorada’ apricot DNA. Seven SSR markers were able to distinguish ‘Dorada’ and its progenitors. The DNA fingerprints of ‘Dorada’ and its progenitors ‘Bergeron’ and ‘Moniquí’ are shown in Table 2.

**Availability**

Virus-free budwood is available from CE-BAS-CSIC (Spain). This cultivar is registered in the European Union Community Plant Variety Office with the registration number 2003/1216. Budwood has been tested and is free of the following viruses: prunus necrotic ring spot virus (PNRSV), apple mosaic virus (ApMV), apple chlorotic leaf spot virus (ACLSV), prune dwarf virus (PDV), and plum pox virus (PPV).

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**Table 2. Molecular characterization of ‘Dorada’ apricot cultivar and its parents ‘Bergeron’ and ‘Moniquí’ using peach simple sequence repeat (SSR) markers.**

| SSR marker | Reference | ‘Dorada’ | ‘Bergeron’ | ‘Moniquí’ |
|------------|-----------|----------|-----------|-----------|
| BPPCT 017  | Dirlewanger et al., 2002 | 203/203  | 203/203  | 203/212  |
| CPPCT 022  | Aranzana et al., 2002 | 238/257  | 238/238  | 257/257  |
| UDP 96003  | Cipriani et al., 1999 | 93/115   | 93/115   | 93/93    |
| UDP 96008  | Cipriani et al., 1999 | 128/128  | 128/128  | 128/128  |
| UDP 96019  | Cipriani et al., 1999 | 170/214  | 170/214  | 170/170  |
| UDP 98406  | Cipriani et al., 1999 | 95/95    | 95/95    | 95/100   |
| UDP 98412  | Testolin et al., 2000 | 96/114   | 110/114  | 96/110   |