‘Primícia’ Apple

F. Denardi, L.F. Hough, and A.P. Camilo
Caçador Experiment Station—EMPASC 89500, Caçador, SC Brazil

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The principal area of apple (Malus domestica Borkh.) production in Brazil is in the south in the states of Santa Catarina, Rio Grande do Sul, and Paraná. In these states, apples are grown using modern technology, and trees are propagated on size-controlling rootstocks (1). Apple production areas are limited because present cultivars have inadequate climatic adaptation and a high level of susceptibility to fungal diseases, including apple scab (Venturia inaequalis (Cke.) Wint.), powdery mildew (Podosphaera leucotricha (Ell. & Ev.) Salm.), and bitter rot (Glomerella cingulata (Ston.) Spauld & Schrenk) (2). There is a need to develop early ripening cultivars that would make it possible to reduce the cost of chemical protection against diseases and also reduce the length of time that late-maturing apples must be stored until the beginning of the next summer’s harvest. Developing cultivars with excellent fruit quality, climatic adaptation, high productivity, and resistance to the principal diseases are the objectives of the apple breeding program of EMPASC. ‘Primícia’ is the first cultivar to be introduced from this program.

Origin

‘Primícia’ resulted from a cross between two North American selections, DIRIO3T245 x DIRIO1T117, which are field-immune to scab (Fig. 1). The cross was made in 1975 at the New Jersey Agricultural Experiment Station. ‘Primícia’ was selected in 1982 from a population of 262 seedlings grown at the Caçador Experiment Station. It was first released for grower testing as Malus 29.

Description

‘Primícia’ has vertical resistance to scab. It carries the Vf gene. The fruit is round to round conic, with an average weight of 150 g. The color is bright red, up to 100%, over a yellow ground color. It is free from russetting and attractive. The flesh is light cream, moderately juicy, firm, with medium breaking texture. The flavor is mildly acid. The fruit keep quite well in cold storage and remain in good condition for > 2 weeks at room temperature.

Trees of ‘Primícia’ are of medium vigor with strong lateral branches that usually make 90° angles with the trunk. Thus, the tree has an open, spreading form that becomes weeping around the perimeter as the tree begins to crop heavily. Flowering in Santa Catarina occurs several days before ‘Gala’. The fruit mature ~3 weeks before ‘Gala’ and > 6 weeks before ‘Golden Delicious’. Trees come into bearing early and are very productive. Fruiting is principally from lateral spurs, but also may be produced from terminal buds. No tendency for alternate bearing has been observed. There is a tendency for overripe fruit to drop. ‘Primícia’ is moderately resistant to mildew, and the fruit ripen before bitter rot occurs. ‘Primícia’ has a lower winter chilling requirement than ‘Gala’; therefore, it does not require chemical treatment to break dormancy. Treatments to break dormancy are required for all cultivars presently grown in the south of Brazil (3).

Availability

All available material is presently being propagated for increase, and distribution of material was made in 1987 in small amounts. Requests should be sent to: Estação Experimental de Caçador—EMPASC, Caixa Postal D-1, CEP 89500 Caçador, SC Brazil.

Literature Cited