

APRICOT TREE CULTIVARS CERTIFIED BY THE S.C.D.P. ORADEA

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Abstract

Creating frost and late hoarfrost resistant apricot cultivars that have a long and deep wintering and are resistant to Plum Pox, Monilinia and Cytospora has been the main objective of improvement research at S.C.D.P. Oradea. In 2006, the following cultivars certified: Ioana, Bihoreana and Monica.

Key words: diallel hybridization, selection, certification.

INTRODUCTION

In the Official catalogue of crop plant breeds in Romania, 48 cultivars are included, out of which six are of foreign origin, while the rest are autochthonous (2008).

The creation of new apricot cultivars started after 1950, by collecting the most valuable local biotypes and introducing the foreign ones at S.C.A. Mărculești, where dr. doc. Cociu Vasile (1993) performs the first controlled artificial hybridizations as well. Between the years 1975 and 1987, fourteen Romanian cultivars are certified by V. Cociu.

The works aimed at apricot improvement witness a remarkable widespread after 1970 at S.C.D.P. Băneasa, S.C.D.P. Constanța and S.C.D.P. Oradea, research stations which, during 1987-2007, enlist in the Official Catalogue 10, 12 and respectively 3 new apricot cultivars (Branșițe, N., 2007).

MATERIAL AND METHODS

Following the hybridization works performed between 1983 and 1988, over 2000 hybrids were obtained, which were planted on their own roots at 4/1.

After 3 years of fruit-bearing, twelve elites were selected, grafted on cherry plum trees and planted in 1994 in comparative field trials at 4/4, the surveyed aspects being the following:

- growth rate, represented by the surface of the trunk section.
- period of blooming and of the fruit's ripening.

- self-pollination and natural pollination.
- fruit production and its quality.

Following the obtained results, the Iulia, Bihoreana, Monica and Ioana cultivars were certified.

RESULTS AND DISCUSSION

The pomological description of the four cultivars certified by S.C.D.P. Oradea is presented as follows.

Ioana, bearing the synonym 85-17-25, is a cultivar obtained at the Pomology Research and Development Station (S.C.D.P.) Bihor, certified in 2006. The fruit is medium sized, has a round shape and its epidermis has a dark orange coloring. The peduncle has an average length and thickness. The pulp is orange in color and has a medium succulence and consistency, with a fine texture. The stone is medium sized, non-adherent. The period of ripening is medium, during July 10-20th.

The tree is very vigorous, with an erect growth habit, having relatively thick skeleton branches, well garnished with May blossoms.

The cultivar presents a high resistance to *Monilinia laxa*, *Stigmia carpophilla* and *Cytospora cincta* and is Plum Pox tolerant; it is also resistant to frost and wintering and has a medium blooming.

Regarding the production and use, with reference to the agronomical features of the cultivar, it starts bearing fruit during the third year since plantation, having a production of 25-40 kg/tree, constant from one year to the next. As to use, fresh consumption is advised.

Iulia, bearing the synonym 83-13-47, is a cultivar obtained at S.C.D.P. Bihor, certified in the year 2006. The fruit is medium sized (35-70 grams), has a trapezoidal shape, while the color of its epidermis is orange.

The peduncle has an average length and thickness. The pulp has an orange coloration, medium juiciness and consistency, and intermediate texture. The stone is of medium size and non-adherent. The period of ripening is medium, between the 10th and the 25th of July. The tree is very vigorous, with an erect growth habit, having relatively thick skeleton branches, well garnished with May blossoms.

The cultivar presents a high resistance to *Monilinia laxa*, *Stigmia carpophilla* and *Cytospora cincta* and is Plum Pox tolerant; it has a medium resistance to frost and wintering. Blooming is also medium.

Regarding the production and use, with reference to the agronomical features of the cultivar, it starts bearing fruit during the third year since plantation, having a production of 25-45 kg/tree, constant from one year to the next. As to use, it is intended for fresh consumption as well as for processing (jam, marmalade, and compote).

Bihoreana, bearing the synonym 83-06-59, is a cultivar obtained by crossing the Băneasa 11-13 and Skana cultivars; the trial was conducted at S.C.D.P. Bihor, the cultivar being certified in 2006. The size of the fruit is medium towards large, and its shape is trapezoidal. The color of its epidermis is light orange. The peduncle is small. The pulp has a light orange coloration, medium juiciness and consistency, and good taste. The stone is medium sized. The period of ripening is medium.

The tree is of average vigor, having an erect growth habit and relatively thick skeleton branches, well garnished with May blossoms and mixed branches.

The cultivar presents a high resistance to *Monilinia laxa*, *Stigmina carpophilla* and *Cytospora cincta* and is Plum Pox tolerant; it is also resistant to frost and wintering. Blooming is medium; the cultivar is self-fertile, with simple flowers, the pistil is higher than the stamens.

Regarding the production and use, with reference to the agronomical features of the cultivar, it starts bearing fruit during the third year since plantation, having a production of 16-22 t/ha, constant from one year to the next. As to use, it is intended for processing (jam, marmalade, fruit jelly, and compote) rather than for fresh consumption.

Monica, bearing the synonym 83-11-60, is a cultivar obtained by crossing the Băneasa 11-13 and Trandafiriu cultivars at S.C.D.P. Bihor, the cultivar being certified in 2006. The fruit is large in size and has a trapezoidal shape. The color of its epidermis is dark orange. The peduncle is small. The pulp is orange in color and has medium juiciness and consistency. The stone is medium sized. The period of ripening is also medium.

The tree is very vigorous; having an erect growth habit and relatively thick skeleton branches, well garnished with May blossoms and mixed branches.

The cultivar presents a high resistance to *Monilinia laxa*, *Stigmina carpophilla* and *Cytospora cincta* and is Plum Pox tolerant; it is also resistant to frost and wintering. Blooming is medium; the cultivar is self-fertile, with simple flowers, the pistil is higher than the stamens.

Regarding the production and use, with reference to the agronomical features of the cultivar, it starts bearing fruit during the third year since plantation, having a production of 18-25 t/ha, constant from one year to the next. As to use, it is intended for processing (jam, marmalade, and compote) rather than for fresh consumption.

CONCLUSIONS

The four new apricot cultivars are well adapted to the ecopedological conditions present in the north-western part of our country. All of them have an average period of ripening.

The Ioana cultivar is recommended for fresh consumption, Bihoreana and Monica are intended for processing, whereas Iulia has mixed functions.

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