

'Sauron' Apple Cultivar

Radu SESTRAS¹⁾, Adriana SESTRAS²⁾, Eugenia HARSAN²⁾, Adrian BARBOS²⁾

¹⁾ University of Agricultural Sciences and Veterinary Medicine, 3-5 Manastur Str., Cluj-Napoca 400372, Romania; rsestras@yahoo.co.uk

²⁾ Fruit Research Station, 5 Horticultorilor Str., Cluj-Napoca 400457, Romania; asestras@yahoo.com; harsane@yahoo.com; adrianbarbos2000@yahoo.co.uk

Abstract

The new apple cultivar 'Sauron' was obtained at Fruit Research Station Cluj, Romania (FRS Cluj), and homologated in 2007. 'Sauron' was identified in open pollinated population of 'Cluj 3/83' selection ['Cluj III-VI-5-26' selection ('Parmain d'Or', open pollinated) x 'NJ 46']. The trees have moderate vigour, upright then spread, with moderate productivity. Fruits are medium to large, usually red, with a portion being greenish or yellow-green and purple red vertically striped. The fruit has good quality, being soft eating apple due to their lack of crispness. Quality indices include firmness, crispness and excellent flavour. Fruits become ripe between 15 August and 5 September and the fruits are good quality, being proper for dessert and industrialization (juice, applesauce, pies, and cider).

Keywords: breeding, *Malus domestica*, genotypes, peculiarities, description

Introduction

At Fruit Research Station Cluj (FRS Cluj), Romania, apple breeding started since 1953, when the unit was founded. Here were created new apple cultivars, as 'Aromat de vara', 'Ardelean', 'Ancuta', 'Feleac', 'Rosu de Cluj', 'Auriu de Cluj', 'Estival', 'Precoce de Ardeal', 'Productiv de Cluj'. In 2007, the new apple cultivar 'Sauron' were homologated (Sestras *et al.*, 2006; Sestras *et al.*, 2008).

Description

The principal characteristics of flowers, fruit, tree and leaves are described using some criteria after UPOV Guidelines (2005).

Origin

The new apple cultivar Sauron was identified in open pollinated population of 'Cluj 3/83' selection ['Cluj III-VI-5-26' selection ('Parmain d'Or', open pollinated) x 'NJ 46'], at FRS Cluj. It was homologated in 2007, by ISTIS (The State Institute for Variety Testing and Registration), with certificate number 8418/29.11.2007, authors: R. Sestras, S. Oprea, E. Harsan, V. Ghidra.

Flower

Flower bud colour: dark pink

Petal colour: white to white-pink, with streaks of pink shade.

Corolla size: large, 64-65 mm in diameter; when flower is open, the petals position is superimposed.

Petal size: large, 27 mm length and 25 mm width in medium.

Petal shape: oval, and the base of petals is truncated.

Flower-arrangement of petals: overlapping.

Flower-position of stigmas relative to anthers: same level.

Stamen size: 11-12 mm; the stamens colour is white-yellow. Pollen colour: yellow-ochre.

Pistil size: 7-8 mm; colour: greenish yellow.

Time of beginning of flowering: early.

Fruit

Fruit shape: obloid. Height-diameter ratio is medium (0.8).

Fruit size: large, with a weight of 220-240 g, height 60-66 mm and 75-80 mm in diameter.

Peduncle: very short (8-10 mm) and with medium thickness (2-3 mm).

Fruit skin: thin, smooth and slightly glossy. Bloom of skin is absent or weak.

Background colour of the fruit: green-yellow, with intense red purple coverings and narrow stripes (Fig. 1).

Lenticels: many and with medium size.

Flesh: white, juicy, with sweet-sour taste and pleasant aroma.

Flesh firmness: medium.

Quality: very good, soft eating apple due to their lack of crispness.

Seminal lodges: long, deep, ovoid and completely open.

Season: midseason, picking date at Cluj-Napoca, in Central Transylvania, Romania, between 15 August and 5 September. Time of eating maturity is early to medium, as in 'Akane', 'James Grieve', 'Summerred' (UPOV, 2005).

Usage: dessert and industrialization as juice, pies, cider, jam, marmalade etc.

Petiole: 34-38 mm length; intensity of anthocyan coloration is reduced.



Fig. 1. 'Sauron' fruits

Tree

Growth: the vigour of trees is medium.

Tree type: ramified, upright then spread.

Type of bearing: on spurs and long shoots.

Skeleton branches: numerous, short and long branches, with medium length of internodes.

Colour branches of a year: brown-green shades of gray than overlapping; strong pubescent branches.

Lenticels: medium, 2 mm, rare, often to the base of branches.

Production: medium productive and annually fructification.

Response to fungal diseases: relative susceptible to apple scab (*Venturia inaequalis* (Cke.) Wint.) and powdery mildew (*Podosphaera leucotricha* (Ell. et Everh.) Salm.) attack.

Leaves

Leaf blade intensity of colour: green, low-pubescent on the underside.

Leaf blade size: 61-90 mm long and 51-55 mm wide.

Leaf blade incisions of margin (upper half): serrate type 1, the same as the varieties 'Elstar', 'Gala' (after UPOV Guidelines, 2005).

Availability

'Sauron' is licensed in Romania by the ISTIS and is presently available from FRS Cluj nursery.

References

- Sestras, R., S. Oprea, A. Barbos, A. Sestras and M. Dejeu (2006). Recent advances in apple breeding at Cluj-Napoca, Romania. Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca. Horticulture 63:405.
- Sestras, R., A. Sestras, A. Barbos and E. Harsan (2008). New cultivars obtained at Cluj-Napoca, Romania: 'Saruman' and 'Sauron' (apple); 'Arvena' (pear). Modern Variety Breeding for Present and Future Needs. Prohens, J. & M.L. Badenes (eds.). Ed. Univ. Polit cnica Valencia, Spain pp. 722-723. Proc. 18th Eucarpia Gen. Congr. 9-12 September 2008.
- UPOV (2005). Guidelines for the Conduct of Tests for Distinctness, Uniformity and Stability. Apple (Fruit Varieties) UPOV Code: MALUS_DOM (*Malus domestica* Borkh.). UPOV, TG/14/9, Geneva.