

New Varieties of Rosa Homologated at the Fruit Research Station Cluj between 2009 - 2011

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Abstract. ‘Violet’ and ‘Aroma’ are two new rosa varieties that were obtained at the Fruit Research Station from Cluj, Romania. They belong to the landscape group of roses. Between the years 2009 and 2011 the field behaviour of the new rosa varieties cultivars was studied, the decorative value was evaluated, as well as their resistance to frost and diseases. In regard to ornamental traits, the most important morphological characteristics were analyzed: the flower color, the habitus, the flowering waves and the way of using the cultivars in various landscape decorations such as: borders, massifs, hedges and small groups, covers.

Keywords: cultivar, breeding, landscape, roses

INTRODUCTION

In Romania the rose is a flower that is much appreciated by the population as well as specialists and, through research, remarkable results were obtained: for establishing the range of cultivars, in the study of resistance to frost and diseases, in micropropagation, in establishing the necessary global temperatures for flowering and in creating new cultivars well adapted to the conditions in our country (Wagner, 2002; Ardelean *et al.*, 2006).

The objective of the rose breeding activity for the Floribunda and landscape (cover) groups is the breeding of new cultivars, attractively coloured, with elongated buds, abundant and remontant flowering and with a very good resistance to diseases and frost (Neagu *et al.*, 1976; Wagner and Raureanu, 1996; Austin, 2000; Ardelean *et al.*, 2006).

In order to obtain new forms and a large variability, over 30 cultivars with good resistance to diseases and frost, from the mentioned groups, were used as genitors. From the experience of the breeders, there are remarkable achievements in obtaining roses, with no significant difficulties, but with attractive foliage, outstanding colors and shapes and good resistance to stress factors (Wagner, 2002; Sestraș *et al.*, 2008).

MATERIALS AND METHODS

The biologic material consisted of the two new cultivars Violet and Aroma, obtained at the Fruit Research Station in Cluj, Romania between 2009 and 2011.

To evaluate the decorative value of the cultivars, the method suggested by Palocsay (1966) was used. During the three years, assessments were done upon 14 characteristics, according to the belonging group of the cultivars, Floribunda or Thea hybrida. Each characteristic had a maximum score, giving the total number of 100 points that could be obtained for each of the analyzed traits. It was considered that cultivars that have, on average, a score of over 70 points, during the three years of the study, is to be a valuable candidate and suiTab. for the growing process.

RESULTS AND DISCUSSION

The morphological characteristics of the rose cultivars and the evaluation scores for the traits are presented in Tab. 1 and Tab. 2.

The main morphological characteristics of the two rose cultivars

Tab.1

No.	Cultivar	The bush			The flower						Disease resistance
		Habitus	Height (m)	Diameter (m)	Type	Color	Beginning of flowering	Flowering waves	Frost resistance	Uses	
1	Aroma	Erect	1,20	1,12	Semi involute	brown salmon and white center	Semi-early	Two times	Resistant	Rebates, parks, gardens	Resistant
2	Violet	Semi-erect	1,05	1,80	Semi involute	purple-mauve	Semi-early	Two times	Resistant	Parks, gardens	Resistant

Evaluation record

Tab.2

No.	Characteristics	Maximum no. of points	Score obtained from 100 points	
			Aroma	Violet
1	Bush shape	5	4,2	4,5
2	Vigor	10	9,0	8,4
3	Foliage	10	7,6	8,8
4	Disease resistance	8	7,7	7,9
5	Flower stem and peduncle	5	4,9	5,0
6	Flowering intensity	10	5,8	4,1
7	Inflorescence	5	4,0	3,6
8	Bud shape	5	4,2	3,9
9	Opened flower shape	9	8,0	8,0
10	Flower durability	9	5,4	6,3
11	Mode of petal abscission	5	4,0	4,3
12	Color at flowering	6	5,4	5,4
13	Color at flower opening	6	6,0	6,0
14	Perfume	7	3,1	4,3
	Total	100	79,1	80,5

Based on the registered data, the overall characteristics of the analyzed cultivars could be formulated:

The habitus: The Aroma cultivar is erect with a height between 1.12-1.20 m, and

Violet is semi-erect with a height of 1.05 m (Tab. 1).

Colour: The color of Aroma is intense salmon brown and Violet is of purple-violet color.

The flower: Regarding flower type, both cultivars have semi-involute flowers.

Flowering: Begins in the first days of June, making the two cultivars as semi-early.

Flowering waves: The cultivars flower continuously, all-year round.

Frost resistance: Is an extremely important characteristic for an area with a continental temperate climate, with temperatures that drop under -20°C . The character was established for both cultivars, that were protected by mounding during winter, by using a scale of marks from 1 to 4, in which 1 is sensitive and 4 is resistant to frost; the results concluded that both cultivars are resistant to frost.

Way of using: Violet and Aroma cultivars are recommended for decorating parks, gardens, borders and for small groups.

Diseases resistance: The study shows that both cultivars are resistant to diseases - mildew, staining and pests.

The **Violet** cultivar was homologated in the year 2010, by the authors: Gabriela Roman, Stefan Wagner, Harsan Eugenia, Giurgiu Maria, and belongs to Floribunda group. It originates from the hybrid combination Rusticana X Lavender Dream. Its bushes are of average vigor, and the flowers are semi-involute, of purple-mauve color. This cultivar has two times flowering it has very good resistance to frost and diseases (mildew and black spotting). It is suiTab. for parks, in groups and flower bands.

The **Aroma** cultivar also belongs to Floribunda group. The cultivar was homologated in 2010 by the authors: Gabriela Roman, Stefan Wagner, Harsan Eugenia, Giurgiu Maria. It originates from the hybrid combination Rusticana X Lavender Dream. The shrubs are compact, with erect branches. The flowers are semi-involute, average-sized; the color is brown salmon and white center, with great decorative effect. Flowering is abundant and continuous. It is resistant to diseases and frost. It is suiTab. for parks, groups, flower bands and borders.

CONCLUSIONS

Between 2009 and 2010, at the Fruit Research Station in Cluj, Romania, researchers obtained two new cultivars: 'Aroma' and 'Violet', which are now used in culture and requested by private producers and state institutions involved in landscaping.

The decorative value was determined on the basis of two years evaluation of 14 characteristics, established in accordance to the group they belong to. Both cultivars presented valuable characteristics, for both decorative traits and the response to ecological conditions. These cultivars can be used in various landscape decorations, such as: borders, massifs, hedges, small covered groups and as cut flowers.

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