

NEW ROSES VARIETIES OBTAINED AT HORTICULTURAL RESEARCH STATION CLUJ, ROMANIA

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Abstract

Rosa L is an excellent landscaping plant, famous for the diversity of colors, perfumes and shapes. At the Horticulture Research Station Cluj, Romania (USAMV -HRS Cj), in 2018- 2020, two new landscape rose cultivars, Puritate and Bogdana, were evaluated for decorative value, resistance to frost and diseases. For ornamental traits, the flowers' color, the plants' habitus, the flowering waves, and the way of using the cultivars in various landscaping situations were appreciated. The decorative value was determined on the basis of three years' evaluation. Fourteen characteristics were analyzed according to the group to which each cultivar belongs; all cultivars presented valuable characteristics, for both decorative traits and response to ecological conditions. These cultivars can be used in various landscaping situations like borders, massifs, hedges, small covered groups, and also as cut flowers.

Keywords: breeding, cultivar, landscape roses.

1. INTRODUCTION

In Romania, rose growing is much appreciated by the people and the specialists and through research work, remarkable results were obtained to establish 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 specific conditions (Wagner, 2002; Ardelean et al., 2006). The objective of the rose breeding. For obtaining new cultivars they were used as genitors over 430 cultivars with good resistance to disease and frost, from the mentioned group from breeders' experience there are remarkable achievements in obtaining roses "without problems", with attractive foliage, outstanding colors and shapes and good resistance too. (Wagner, 1999; Sestras et al., 2008).

2. MATERIALS AND METHODS

The biologic material, the two new cultivars, Puritate and Bogdana, was selected from the selection land, between 2018-2020. To evaluate the decorative value of the cultivars, the method used was suggested by Polocsay (1966), during three years, assessments were done upon 14 characteristics according to the group of cultivars. Each characteristic had a benchmark score and the total number of points that could be attained for each analyzed trait was 100. It was considered that some cultivars that gather, on average, a score superior to 70; in three years, could be considered valuable for crop and suitable in the growing process. Also, the characteristic was evaluated as the modern guide.

3. RESULTS AND DISCUSSIONS

The principal characteristics of the new rose cultivars. The principal morphological characteristics of the rose cultivars and the evaluation scores for some traits are presented in 1-3 tables based on the registered data, there could be formulated the general characteristics of the analyzed cultivars.

Table 1. The main morphological characteristics of the two rose cultivars

Cultivar	The bush			The flower		Flowering	
	habitus	height (m)	diameter (m)	Type	Color	Beginning of blooms	Waves
Bogdana	Semi-erect	0.53	0.20	Involutes	Purple	Early	Perpetual
Puritate	Erect	0.90	0.80	Semi-involutes	White	Mid-early	Perpetual

Table 2 Aspects related to flowering

Cultivar	Flowering	
	Beginning of blooms	Waves
Bogdana	Early	Perpetual
Puritate	Mid-early	Perpetual

Table 3 Resistance and cultivar uses

Cultivar	The flower frost resistance	Disease resistance	Cultivar uses
Bogdana	resistant	resistant	rebates, parks, gardens
Puritate	resistant	resistant	parks, gardens

Table 4 Table of cultivars Characteristics

No.crt.	Cultivar	Benchmark score	Bogdana Score	Puritate Score
1.	Shrub shape	5	4.0	4.2
2.	Vigor	10	8.3	8.7
3.	Foliage	10	8.4	8.2
4.	Disease resistance	8	7.8	7.8
5.	Flower stem and peduncle	5	4.6	4.9
6.	Flowering intensity	10	6.8	6.6
7.	Inflorescence	5	4.1	4.0
8.	Bud shape	5	3.3	4.3
9.	Flower shape	9	8.0	8.0
10.	Flower durability	9	6.2	5.6
11.	Falling petals	5	4.1	4.0
12.	Bud color	6	6.0	6.0
13.	Flower color	6	5.0	5.1
14.	Fragrance	7	4.0	3.3
TOTAL		100	80.6	80.7

Habitus: Among the analyzed cultivar Puritate is upright with a height between 0.85 – 0.90m and Bogdana is semi- upright with a height of 0.63 m, table1.

Vigour: Puritate is an cultivar with high vigour, Bogdana with midle vigour.

Color|: Bogdana is purplish and Puritate is white, useful for diversifying of rose assortment.

The flower: Regarding flower type cultivars Bogdana has involutes flowers and Puritate cultivar has semi –involutes flowers.

Flowering: It begins in the first days of June among the cultivars presented, Bogdana blooms early and Puritate semi – early.

Flowering waves was the studied for the cultivars, both of them are flowering perpetual

Frost hardiness: It is an extremely important characteristic for continental temperate climate regions, where temperatures could drop in the winter below – 20 C. It was established for all the cultivars, protected by mounding during winter, by using a score of 1-4, in which ‘‘ 1’’ is very sensitive and ‘‘4’’ is resistant to frost, both cultivars were noted as resistant.

Both cultivars, Bogdana and Puritate are suitable and recommended for landscaping for parks, gardens, borders and small groups.

Diseases hardiness: It was found that the new cultivars are tolerant resistant to mildew, black spot diseases and Aphids and Japanese Beetles pests A brief description and resume of the new cultivars obtained in the years 2018 – 2020.

PURITATE AND BOGDANA

Bogdana : This cultivar belongs to shrub group, it was homologated in the year 2011 by Gabriela Roman and Stefan Wagner authors. It originates from the hybrid combination Candy Rosa x Yesterday. Its shrub is of average vigor, with involutes, purple mauve flowers. It has continuous flowering, very good resistance to frost and mildew, black spot diseases and Aphids and Japanese Beetles pests. It is suitable for parks, in groups and flower bands.

Puritate : These cultivars belong, to the bed group. It was homologated in the year 2012, the authors are Gabriela Roman and Wagner Stefan. It originates from the hybrid combination Rusticana x Lavender Dream. The shrub is big, vigorous with semi-involutes and white color flowers. It has continuous flowering, very good resistance to frost and mildew, black spot diseases and Aphids and Japanese Beetles pests. It is suitable for parks and gardens. These homologated cultivars are extended in culture and required by private producers and state institutions.

4. CONCLUSIONS

Between 2018 and 2020 U.S.A.M.V. – H.R.S. Cluj Researchers studied two new cultivars, Bogdana and Puritate, which are now used in culture. The decorative value was determined on the basis of three years evaluation. Fourteen characteristics were analyzed according to the group to which each cultivar belongs all cultivars presented valuable characteristics, for both decorative traits and response to ecological conditions.

5. ACKNOWLEDGEMENTS

These cultivars can be used in various landscaping situations like borders, massifs, hedges, small covered groups and also as cut flowers.

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