

ASPECTS REGARDING THE ORNAMENTAL VALUE OF SOME TEAHIBRIDA AND FLORIBUNDA ROSE VARIETIES FROM „TUDOR NECULAI” NURSERY COLLECTION - IASI COUNTY

OBSERVAȚII PRIVIND VALOAREA ORNAMENTALĂ A UNOR SOIURI DE TRANDAFIRI DIN CLASA TEAHIBRIDA ȘI CLASA FLORIBUNDA ÎNTÂLNIȚI ÎN PEPINIERA „TUDOR NECULAI” IAȘI

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Abstract. *The paper presents aspects regarding the decorative value of some Teahibrida and Floribunda rose varieties, from the „Tudor Neculai” nursery collection, cultivated in Iasi region conditions. The observations regarded six rose varieties, three from the Teahibrida class: „Burgund”, „Crimson Glory” and „Grand Prix”; and three from the Floribunda class: „Betty Prior”, „Foc de Tabără” and „Rumba”. Six feature were studied defining the decorative value of these varieties: the foliage, the diseases resistance, the flowering intensity, the form of the flower, the colour of the petals and the odour.*

Key words: roses, stems, buds, flower

Rezumat. *În lucrare sunt prezentate observații privind valoarea ornamentală a unor soiuri de trandafiri din clasa Teahibrida și clasa Floribunda întâlniți în pepiniera „Tudor Neculai” din Iași. Observațiile au fost făcute la 6 soiuri de trandafiri, 3 din clasa Teahibrida: „Burgund”, „Crimson Glory”, „Grand Prix” și 3 din clasa Floribunda: „Betty Prior”, „Foc de Tabără”, „Rumba”. Au fost luate în studiu 6 însușiri ce definesc valoarea decorativă a acestor soiuri și anume: frunzișul, rezistența la boli, intensitatea înfloritului, forma florii, culoarea petalelor, parfumul.*

Cuvinte cheie: trandafiri, lujeri, muguri, flori.

INTRODUCTION

In the multitude of dendrological species including ornamental shrubs, species of *Rosa* have real importance for the design of green spaces, and obtaining of noble roses, and many of them are utilised as parent stocks for cultivated sorts (Mohan *et al.*, 2010).

The conditions from Romania are generally favourable for these species.

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One of the basic components of green spaces ensuring the aesthetic aspect of the localities and which contributes to the health and good state of mind of people and to insuring a favourable work climate, is constituted by the floral and rose arrangements (Wagner, 2002). The rose has been considered ever since the past “The Queen of Flowers”, because of its multiple qualities and especially the richness and beauty, perfume and the different colours and shapes (Bernardis, 2011; Wagner, 2002).

The necessity for diversifying the species is a priority, having in view the diversity of biological material and the results obtained. Literature shows, which in this genus are known over 400 species with more than 20,000 sorts (Chelariu et al., 2019; Zaharia et al., 2003; Wagner, 2002).

MATERIAL AND METHOD

The observations regarding the roses were made within the nursery “Tudor Neculai” Iași. The nursery is placed outside the built-up area of Iași on a land of Miroslava commune, being destined to production of the dendrological seeding material for decorating and beauty the green spaces from the perimeter of Iași city. They are characterized through a series of characteristics, among which we mention:

1. - the bush shape; 2. - the vigour; 3. - the leafage; 4. - the resistance to diseases; 5. - the shank and the floral peduncle; 6. - the blooming intensity; 7 -the rose bud shape ; 8. - the flower shape; 9. -the durability of the flower in the field; 10. - the colour at opening; 11. - the colour at blossoming ; 12. - the manner of petals fall; 13. - the perfume.

The nursery also has a rich variety of roses, among which we mention: *Acapulco*, *Betty Prior*, *Burgund*, *Crimson Glory*, *Foc de Tabără*, *Grand Prix*, *Luchian*, *Queen Elizabeth*, *Rumba*, *Super Star*, etc.

The research was done on six varieties of rose from dendrological nursery, three from Teahibrida class: *Burgund*, *Crimson Glory*, *Grand Prix*, (Figure 1,2,3) and three from Floribunda class: *Betty Prior*, *Foc de Tabără*, *Rumba* (Figure 4,5,6).

They consisted in studying six more important characteristics that define to the greatest extent the decorative value of these varieties and namely: 1: the leafage, 2. the resistance to diseases; 3. the blooming intensity; 4. the flower shape; 5. the colour of petals; 6. the perfume.

The observations were made in sixperiod, starting with the date June for 5th approximately every 2 weeks. In the end, calculated the arithmetical mean for each characteristic in part and the total of points for the characteristics analyzed in each variety (Chelariu et al., 2019).

The score a for each parameter studied was between 0-10 point and was given for each of the 6 periods analyzed (05.VI, 26 VI., 12.VII, 30 VII, 13 VIII, 01 IX).

RESULTS AND DISCUSSIONS

For the six varieties of roses studies drew up quality evaluation sheets that comprise the reliability characteristics and the data regarding which we made the observations (tables no. 1, 2, 3, 4, 5, 6).

1. The leafage: This characteristic was appreciated according to the density of leaves on the sprouts, the colour, the shininess, the manner it maintains on the bush during the vegetation period, the maximum grade being 10. Among the varieties taken in the study the highest score was registered by the variety „*Burgund*” with 60 points and the lowest score was registered by the varieties „*Grand Prix*” and „*Rumba*” with 45 points.

2. Resistance to diseases: This represents one of the most important aspects in the culture of roses. The most frequent diseases are: the black spotting, (*Diplocarpon rosae*), the scab (*Phragmidium disciflorum*) and the mildew (*Sphaerotheca pannosa, var. rosae*), the maximum grade being 8. The tolerance to these diseases is determined by dense, puckered, dark green foliage and with a thick cuticle.

The very good results were registered by three of the analysed varieties, having the maximum score of 48 points, with the exception of the variety „*Crimson Glory*” which has proven sensitive to diseases, registering 42 points.

3. The intensity of blooming: This characteristic represents one of the most important qualities of the varieties of roses. In the case of this character, the maximum grade is 10. The varieties „*Foc de Tabără*”, „*Luchian*”, „*Betty Prior*” distinguished themselves with a maximum score of 60 points, followed by followed by "Crimson Glory" variety, with 54 points. The minimum score was registered by „*Grand Prix*” and „*Rumba*” varieties, with 48 points.

4. The bud shape: It is a trait characterising all varieties of climbing roses; taking into account both the shape and the dimensions of the flowers. The varieties „*Burgund*”, „*Foc de Tabără*” and „*Grand Prix*”, distinguished themselves as having very beautiful flowers: registering a score of 54 points.

5. The colour at blossoming: It can be assessed rather subjectively according to the person executing the pre-operation. The maximum grade for this characteristic is considered 6, and the maximum grade is given to the varieties whose petals have an intense colour, well emphasized and that remains for a longer period of time.

As regards the colour at flowering, the varieties „*Burgund*”, „*Crimson Glory*”, „*Foc de Tabără*” and „*Grand Prix*” distinguished themselves.

6. Perfume: It is also a much appreciated characteristic, the maximum grade being 7.

Of the 6 varieties analyzed, as regards the most perfumed one, we noticed the flowers of the „*Crimson Glory*” and „*Burgund*” varieties. The first variety represents the velvet red claret flower and with a strong perfume of damask roses, and the second variety has a large flower, dark red velvety and intense perfume.

Table 1.

The quality evaluation sheet for the „BURGUND” variety

Crit. No.	Evaluated characteristic	Max. no. of points	Date of observations						Total points	Mean
			05 VI	26 VI	12 VII	30 VII	13 VIII	01 IX		
1.	Leafage	10	10	10	10	10	10	10	60	10.0
2.	Resistance to diseases	8	8	8	8	8	8	8	48	8.0
3.	The blooming intensity	10	10	10	10	10	10	10	60	10.0
4.	The bud shape	9	9	9	9	9	9	9	54	9.0
5	The colour at blossoming	6	6	6	6	6	6	6	36	6.0
6	The perfume	7	7	7	7	7	7	7	42	7.0
Total points									50	

Table 2.

The quality evaluation sheet for the „CRIMSON GLORY” variety

Crit. No.	Evaluated characteristic	Max. no. of points	Date of observations						Total points	Mean
			05 VI	26 VI	12 VII	30 VII	13 VIII	01 IX		
1.	Leafage	10	8	8	8	8	8	8	48	8.0
2.	Resistance to diseases	8	8	8	7	7	6	6	42	7.0
3.	The blooming intensity	10	9	9	9	9	9	9	54	9.0
4.	The bud shape	9	8	8	8	7	7	7	45	7.5
5.	The colour at blossoming	6	6	6	6	6	6	6	36	6.0
6.	The perfume	7	7	7	7	7	7	7	42	7.0
Total points									44.5	

Table 3.

The quality evaluation sheet for the „GRAND PRIX” variety

Crit. No.	Evaluated characteristic	Max. no. of points	Date of observations						Total points	Mean
			05 VI	26 VI	12 VII	30 VII	13 VIII	01 IX		
1.	Leafage	10	8	8	8	7	7	7	45	7.5
2.	Resistance to diseases	8	8	8	8	8	8	8	48	8.0
3.	The blooming intensity	10	8	8	8	8	8	8	48	8.0
4.	The bud shape	9	9	9	9	9	9	9	54	9.0
5.	The colour at blossoming	6	6	6	6	6	6	6	36	6.0
6.	The perfume	7	3	3	3	3	3	3	18	3.0
Total points									41.5	

Table 4.

The quality evaluation sheet for the „BETTY PRIOR” variety

Crit. No.	Evaluated characteristic	Max. no. of points	Date of observations						Total points	Mean
			05 VI	26 VI	12 VII	30 VII	13 VIII	01 IX		
1.	Leafage	10	9	9	9	9	9	9	54	9.0
2.	Resistance to diseases	8	8	8	8	8	8	8	48	8.0
3.	The blooming intensity	10	10	10	10	10	10	10	60	10.0
4.	The bud shape	9	8	8	8	8	7	7	46	7.6
5.	The colour at blossoming	6	5	5	5	5	5	5	30	5.0
6.	The perfume	7	2	2	2	2	2	2	12	2.0
Total points									41.6	

Table 5.

The quality evaluation sheet for the „FOC DE TABĂRĂ” variety

Crit. No.	Evaluated characteristic	Max. no. of points	Date of observations						Total points	Mean
			05 VI	26 VI	12 VII	30 VII	13 VIII	01 IX		
1.	Leafage	10	9	9	9	9	9	9	54	9.0
2.	Resistance to diseases	8	8	8	8	8	8	8	48	8.0
3.	The blooming intensity	10	10	10	10	10	10	10	60	10.0
4.	The bud shape	9	9	9	9	9	9	9	54	9.0
5.	The colour at blossoming	6	6	6	6	6	6	6	36	6.0
6.	The perfume	7	1	1	1	1	1	1	6	1.0
Total points									43.0	

Table 6

The quality evaluation sheet for the „RUMBA” variety

Crit. No.	Evaluated characteristic	Max. no. of points	Date of observations						Total points	Mean
			05 VI	26 VI	12 VII	30 VII	13 VIII	01 IX		
1.	Leafage	10	8	8	8	7	7	7	45	7.5
2.	Resistance to diseases	8	8	8	8	8	8	8	48	8.0
3.	The blooming intensity	10	9	9	8	8	7	7	48	8.0
4.	The bud shape	9	7	7	7	6	6	6	39	6.5
5.	The colour at blossoming	6	6	6	5	5	4	4	30	5.0
6.	The perfume	7	2	2	2	2	2	2	12	2.0
Total points									37.0	

CONCLUSIONS

The analysis of the behaviour of the six varieties, regarding the most important decorative characteristics emphasized the following aspects:

- the most decorative leafage was ascertained in the „*Foc de Tabără*”, „*Burgund*” and „*Betty Prior*” varieties.
- all the varieties analyzed , with the exception of „*Crimson Glory*” variety that has proven to be sensitive to diseases, have proven most resistant to the attack of diseases,.
- the varieties „*Foc de Tabără*”, „*Burgund*” and „*Betty Prior*” distinguished themselves through a great intensity of blooming.
- the most beautiful flowers have proven to be those from the varieties „*Burgund*”, „*Foc de Tabără*” and „*Grand Prix*”.
- as regards the colour of flowers the most valuable varieties distinguished were *Burgund*”, „*Crimson Glory*”, „*Foc de Tabără*”and „*Grand Prix*”.
- the most perfumed flowers, of the four varieties analyzed have proven to be the flowers of the varieties „*Crimson Glory*”and „*Burgund*”.
- from the point of view of the total score, the most valuable variety is „*Burgund*”, registering a score of 50.0 points, distinguishing itself through a medium vigour, of 60-80/35 cm, erect.

The leaves of this variety are large, dark green, dense, semi-glossy. Buds are large, spherical, which open in a spiral, and abundant flowers (30-35 petals), large, dark red and velvety, scent of good intensity. It blooms very profusely. It is resistant to diseases and frost. Recommended for fences or planting in small groups.

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