

RESEARCH REGARDING THE BEHAVIOUR OF SOME ROSE FROM THEA GROUP IN CROPPING CONDITIONS FROM IAȘI COUNTY, ROMANIA

CERCETĂRI PRIVIND COMPORTAREA UNOR TRANDAFIRI DIN GRUPA THEA ÎN CONDIȚIILE DE CULTURĂ DIN IAȘI, ROMANIA

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Abstract. *The current paper aimed to analyse the behaviour of some rose from Thea group ('Ingrid Bergman', 'Maurice Utrilo', 'Monika') in the pedoclimatic conditions from Iași County, Romania. Determinations were carried out in cropping conditions provided by rose collection of Floriculture discipline from UASVM Iași, Romania. At the end of the study was observed that in the cropping conditions from North-East area of Romania, rose assortments had a very good adaptation. From spring till autumn plants are decorative, being suitable to be used in different types of landscape design.*

Key words: rose, adaptation, 'Ingrid Bergman', 'Maurice Utrilo', 'Monika'

Rezumat. *Lucrarea de față își propune analizarea comportării unor soiuri de trandafiri aparținând grupului Thea ('Ingrid Bergman', 'Maurice Utrilo', 'Monika') în condițiile pedoclimatice din județul Iași, România. Determinările au fost efectuate în condițiile de cultură oferite de colecția de trandafiri a disciplinei de Floricultură din cadrul USAMV Iași, România. La finalul cercetărilor s-a observat că în condițiile de cultură din zona de Nord-Est a României, soiurile de trandafiri au avut o foarte bună adaptare. Din primăvară până în toamnă plantele sunt decorative, putând fi folosite în diferite tipuri de amenajări peisagistice.*

Cuvinte cheie: trandafiri, adaptare, 'Ingrid Bergman', 'Maurice Utrilo', 'Monika'

INTRODUCTION

Genus *Rosa* L. belongs to Rosaceae family and includes various taxons cultivated for cut flowers which are used in floral art (Buta and Cantor, 2015) and in different compositions for landscape designs (Wagner, 2002).

From Antiquity, rose gains the rank of "Queen of flowers", due to it's multiply qualities, especially beauty and elegance of flowers (Buta and Cantor, 2015; Cantor and Buta, 2010; Wagner, 2002; Mikolajski, 2013).

Because in the last years, in Romania, the interest for rose utilization in landscape designs was inconstant, in the current study we aimed to evaluate the behaviour in cropping conditions from Iași, Romania, for three rose kinds belonging to theahybrida group.

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MATERIAL AND METHOD

Research was carried out in the rose collection of Floriculture discipline belonging to USAVM Iași, Romania, during 2016-2017.

Research material was represented by three rose assortments belonging to theahybrida group (TH): 'Ingrid Bergman', 'Maurice Utrilo', 'Monika', planted in 2015.

Observations were realised starting with the end of May till October, based on some special files in which were mentioned the studied characters and features together with the maximal point value which could be attributed to each of them: bush form (5 points), bush vigour (8 points), aspect of leafage (8 points), resistance at pathogen agents attack (8 points), rod and floral peduncle (5 points), flowering intensity (10 points), rosebud shape (10 points), shape of opened flowers (7 points), flower durability (5 points), colour of petals at opening (6 points), colour of petals at flowering (6 points), falling mode of petals (5 points), flowers' perfume (7 points), other aspects (adaptability at cropping conditions) (10 points) (Wagner, 2002). Based on the mean obtained score were made appreciations regarding the behaviour in cropping conditions from Iași, Romania.

RESULTS AND DISCUSSIONS

'**Ingrid Bergman®**' (POULman) (fig. 1) is a theahybrid rose created by L. Pernille Olesen in Denmark, in 1985, when was registered under the name of POUlman. It has a compact bush aspect, dense, with a height which could reach 50-90 cm, well ramified. It presents straight and strong stems, and at their end appear solitary or grouped, big flowers with diameter of 10-14 cm, with 25-40 petals, having a warm and velvety intense red colour. The perfect shape of flower denotes a remarkable elegance. Leaves have a dark-green colour, being semi-glossy. It blooms abundant from summer till late in autumn (Wagner, 2002; Mikolajski, 2007). It tolerates well heat, rain and it is very resistant to pests and diseases. Also, was observed that has a remarkable resistance at frost.

It received numerous awards and was included, in 2000, into the list of worlds' favourite roses by World Federation of Rose Societies (https://en.wikipedia.org/wiki/Rosa_'Ingrid_Bergman'; <https://www.helpmefind.com/rose/l.php?l=1.3389>).

'Ingrid Bergman', in cropping conditions from Iași, obtained during research period a total score of 91.12 from 100 possible points (tab. 1). Plants were remarked by the shape of opened flowers, flower durability, colour of petals at opening, colour of petals at flowering, adaptability at cropping conditions, at which plant received the maximum score for each character. It was observed the fact that leafage was very beautifully preserved till late in autumn (7.78 points). Rosebuds are elegant (9.67 points). Plants showed a good resistance at pathogen agents attack (7.75 points). Flowers are less perfumed (1 point), bloom abundantly (9.78 points) till late in autumn (5 points).

This assortment could be considered as excellent for utilisation in landscape designs in areas with cropping conditions similar to Iași area.



Fig. 1 'Ingrid Bergman®' (original)

Table 1
Evaluation of 'Ingrid Bergman®' kind in cropping conditions from Iași, Romania

Evaluated character	Maximum score	Date										Mean score/ character
		28. V	12. VI	27. VI	12. VII	28. VII	11. VIII	31. VIII	18. IX	2. X		
bush form	5	4	5	5	5	5	5	4	4	4	4.56	
bush vigour	8	7	7	8	8	8	8	8	8	8	7.78	
aspect of leafage	8	8	8	8	8	8	8	8	7	7	7.78	
resistance at pathogen agents	8	8	8	8	8	8	7	7	7	7	7.55	
rod and floral peduncle	5	5	5	5	5	5	5	5	5	5	5	
flowering intensity	10	9	10	10	10	10	10	10	9	9	9.78	
rosebud shape	10	9	9	10	10	10	10	10	10	9	9.67	
shape of opened flowers	7	7	7	7	7	7	7	7	7	7	7	
flower durability	5	5	5	5	5	5	5	5	5	5	5	
colour of petals at opening	6	6	6	6	6	6	6	6	6	6	6	

colour of petals at flowering	6	6	6	6	6	6	6	6	6	6	6	6
falling mode of petals	5	4	4	4	4	4	4	4	4	4	4	4
flowers' perfume	7	1	1	1	1	1	1	1	1	1	1	1
adaptability at cropping conditions	10	10	10	10	10	10	10	10	10	10	10	10
Total score												91.12

‘Monika®’ (TANaknom, TANakinom) synonyms: Monica (fig. 2) is a theahybrid rose created by Hans Jürgen Evers, in Germany, 1985, and was introduced by Tantau Roses in the same year under the commercial name of Monica. It forms a bush with a great vigour, 50-120 cm, which present straight branches, with a reddish colour and few thorns. Leafage is dark green, glossy. Flowers have medium size with 25-28 petals, are light perfumed and could be founded solitary or in small groups on erected stems. Rosebuds are elongated and elegant, with an intense orange colour (Wagner, 2002). Colour intensity is well preserved during life cycle of flower on plant. Only when enter in decline, it decrease and turns slightly to pink. Have an abundant flowering in summer and autumn. In autumn have a light lose at base. In rainy years is sensitive to black spotting. Have a good resistance to frost, pests and diseases (<http://www.helpmefind.com/rose/pl.php?n=18205>).



Fig. 2 ‘Monika®’ (original)

In cropping conditions from Iași, Romania, 'Monika' kind had a good behaviour, obtaining a total score of 94.34 points (tab. 2). Bushes had a very good vigour (8 points), an elegant shape (4.78 points), very rich leafage which persisted till late in autumn (7.89 points) and a good resistance at pathogen agents attack (7.78 points). Rod, floral peduncle and floral rosebud are elegant. Flowers are pleasantly perfumed (3 points), with an orange colour, characteristic to kind, persistent (6 points). Have an abundant flowering till late in autumn (5 points).

This kind had a very good behaviour in cropping conditions from Iași area and could be recommended for vegetal compositions in landscape designs.

Table 2

Evaluation of 'Monika®' kind in cropping conditions from Iași, Romania

Evaluated character	Maximum score	Date										Mean score/ character
		28. V	12. VI	27. VI	12. VII	28. VII	11. VIII	31. VIII	18. IX	2. X		
bush form	5	5	5	5	5	5	5	5	4	4	4.78	
bush vigour	8	8	8	8	8	8	8	8	8	8	8	
aspect of leafage	8	8	8	8	8	8	8	8	8	7	7.89	
resistance at pathogen agents	8	8	8	8	8	8	8	8	7	7	7.78	
rod and floral peduncle	5	5	5	5	5	5	5	5	5	5	5	
flowering intensity	10	10	10	10	10	10	10	10	10	9	9.89	
rosebud shape	10	10	10	10	10	10	10	10	10	10	10	
shape of opened flowers	7	7	7	7	7	7	7	7	7	7	7	
flower durability	5	5	5	5	5	5	5	5	5	5	5	
colour of petals at opening	6	6	6	6	6	6	6	6	6	6	6	
colour of petals at flowering	6	6	6	6	6	6	6	6	6	6	6	
falling mode of petals	5	4	4	4	4	4	4	4	4	4	4	
flowers' perfume	7	3	3	3	3	3	3	3	3	3	3	
adaptability at cropping conditions	10	10	10	10	10	10	10	10	10	10	10	
Total score											94.34	

‘Maurice Utrillo®’ (DELstavo) synonym: Artist Panarose (fig. 3) is a theahybrid rose kind, recorded by Delbard in France, in 2004, under the name of DELstavo. Created in the memory of the great French painter, ‘Maurice Utrillo®’ rose, belongs to the unique collection DelbardPainters. Roses grouped here present flowers of which petals are opening into a whirl of luminous colours, lightly mixed, feature which reminds of the technique used by the Impressionists painters in application of colours on canvas. Their characteristic way of applying undiluted colours, next to each other on canvas, with a minimum possible mix constituted a veritable inspiration source for this collection which is certain totality homage paid to them (<http://www.helpmefind.com/roses>).

Those kind form a vigorous bush, compact, with a height of 50-90 cm, present a healthy leafage with a dark green colour and with big double flowers, with 20-26 petals, lightly perfumed, which appear solitary or grouped by 2-3 on straight stems. Flowers have a mix of red, yellow and white colours in unique variable proportions for each flower. While flower is opening its colours tend to turn from intense red ribbed with yellow and white to red-cyclamen mixed with buttered white. Have a good resistance of flower on plant. It is flowering in waves during the whole vegetation season. Have a good resistance at frost, pests and diseases (<http://www.thetutuguru.com.au/rosedebard/delbard.html>; <http://www.helpmefind.com/roses>; <http://www.helpmefind.com/gardening/pl.php?n=44621>).



a)



b)

Fig. 3 ‘Maurice Utrillo®’ (original)

‘Maurice Utrillo’ roses had a very good behaviour in cropping conditions from Iași, Romania, being obtained during research period a score of 92.9 points

from a total of 100 points (tab. 3). Bushes were vigorous (8 points), well garnished, with very rich leafage (8 points), a good resistance at pathogen agents attack (7.78 points). Flowering took place till late in autumn, flowers resisting very well on plant (5 points). Colour of flowers was a mix of red, yellow, white in different proportions, at the beginning of flowering predominant was white colour (fig. 3a), and after that white-yellowish one (fig. 3b).

'Maurice Utrillo' had a very good behaviour in cropping conditions from Iași, and together with the others two studied kinds could be observed in different landscape designs in the area.

Table 3

Evaluation of 'Maurice Utrillo®' kind in cropping conditions from Iași, Romania

Evaluated character	Maximum score	Date									Mean score/ character
		28. V	12. VI	27. VI	12. VII	28. VII	11. VIII	31. VIII	18. IX	2. X	
bush form	5	4	5	5	5	5	5	5	5	4	4.78
bush vigour	8	8	8	8	8	8	8	8	8	8	8
aspect of leafage	8	8	8	8	8	8	8	8	8	8	8
resistance at pathogen agents	8	8	8	8	8	8	8	8	7	7	7.78
rod and floral peduncle	5	5	5	5	5	5	5	5	5	5	5
flowering intensity	10	9	10	10	10	9	10	10	10	9	9.67
rosebud shape	10	10	10	10	10	10	10	10	10	10	10
shape of opened flowers	7	7	7	7	7	7	7	7	7	6	6.89
flower durability	5	5	5	5	5	5	5	5	5	5	5
colour of petals at opening	6	5	6	6	6	6	6	6	6	5	5.78
colour of petals at flowering	6	6	6	6	6	6	6	6	6	6	6
falling mode of petals	5	4	4	4	4	4	4	4	4	4	4
flowers' perfume	7	2	2	2	2	2	2	2	2	2	2
adaptability at cropping conditions	10	10	10	10	10	10	10	10	10	10	10
Total score											92.9

In landscape designs, plants from vegetal compositions must preserve as much time as possible in the year the ornamental characters (bush aspect, presence of leafage, flowers etc.). Perfume of flowers is one of the basic qualities of roses, and its intensity is correlated with colour of flowers. Generally, roses have a discrete perfume; the most perfumed flowers are the white ones, followed by the yellow and pink ones (Buta and Cantor, 2015). From the studied rose kinds 'Monika' have a fine, discreet perfume, being scored with 3 points (tab. 2) and 'Maurice Utrillo', noted with 2 points from 7 possible points (tab. 3).

CONCLUSIONS

In conclusion, we can affirm that all those three kinds of studied roses, 'Ingrid Bergman', 'Monika' and 'Maurice Utrillo', had a good behaviour in cropping conditions from Iași area, Romania, forming vigorous bushes, with a rich leafage, resistant to pathogen agents attack, with a long time flowering, being able to assure décor from May till late in autumn.

All the above mentioned things sustain the utilisation of those three kinds of roses in vegetal compositions from landscape designs from Iași area, Romania.

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