



RESEARCH PAPER

Effect of organic and inorganic sources on economics of hybrid tea rose cv. Gladiator

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Abstract : The present investigation entitled effect of organic and inorganic sources on economics of Hybrid Tea Rose Cv. Gladiator was conducted at Department of Horticulture, Late Shri Vasantnaik Marathwada Krishi Vidyapeeth, Parbhani, M.S., India during the year 2008-2009. The experiment was conducted in Randomized Block Design (RBD) with seven treatments and three replications. From the data recorded it was found that the highest returns (Rs. 2.12 Lakhs) were obtained with the treatment T₃ (50 % RDF +50% Vermicompost). However, the lowest returns were obtained at the treatment T₁ (Control) with 0.92 lakhs. From the data of Benefit : Cost ratio, it was found that the treatment T₃ (50% RDF + 50% Vermicompost) was found most beneficial among all the treatments and recorded the highest ratio (1:4.27). However, the lowest ratio (1:2.41) was recorded by the treatment T₁ (Control).

Key Words : Economics, Organic, Inorganic, Rose

View Point Article : Hadwale, M. B., Sable, P. B. and Waskar, D. P. (2023). Effect of organic and inorganic sources on economics of hybrid tea rose cv. Gladiator. *Internat. J. agric. Sci.*, 20 (1) : 179-181, DOI: 10.15740/HAS/IJAS/20.1/179-181. Copyright@2024: Hind Agri-Horticultural Society.

Article History : Received : 24.08.2023; Revised : 26.09.2023; Accepted : 01.11.2023

INTRODUCTION

Among the flowers, the rose (*Rosa indica*) belongs to family Rosaceae. It is regarded as the symbol of life, love, devotion, beauty and eternity. It is cultivated in the world in large number. Hence, rose is called as “King of Flower”. In India, it is cultivated commercially for cut flowers. It is mainly used for bouquets, interior design, decoration, religious and social functions and floral arrangement. Besides these, roses are cultivated for rose attar and other products. Rose petals are used for making

candy, wine, gulkand, gulabjal (rose water), rose oil, rose perfume, Pankhudi etc. The area under floriculture production in India is 322 thousand hectares with the production of 2152 thousand tonnes of loose flowers and 828 thousand tonnes of cut flowers (Anonymous, 2021). The rose contributes 51 per cent share in the world flower trade. The major rose growing states in India are Karnataka, Tamil Nadu, Maharashtra, Bihar, West Bengal, Uttar Pradesh, Gujrat, Haryana, Punjab and Andhra Pradesh (Chadha, 2001). Maharashtra is a

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leading state in rose production. Roses are grown particularly in Nashik, Pune, Sangli, Ahmednagar, Nagpur, Aurangabad and some parts of Marathwada region.

In order to expand the area under rose cultivation and to promote the farmers towards the rose farming, the experiment was planned on the effect of organic and inorganic sources on economics of Hybrid Tea Rose Cv. Gladiator to find out cost of cultivation and returns for different treatments.

MATERIAL AND METHODS

The present investigation entitled effect of organic and inorganic sources on economics of Hybrid Tea Rose Cv. Gladiator was conducted at Department of Horticulture, Late Shri. VNMKV, Parbhani, M. S., India during the year 2008-09. The experiment was conducted in Randomized Block Design (R.B.D.) with Seven treatments. The treatments were replicated three times. The treatments were T₁- 100% RDF (Control), T₂-75% RDF +25% Vermicompost, T₃-50% RDF. +50% Vermicompost, T₄-75% RDF+25% FYM, T₅-50% RDF+50% FYM, T₆-75% RDF +25% Poultry Manure,

T₇ -50% RDF+50% Poultry Manure. Plant spacing was 120x120 cm and size of the plot was 23.04 m². Uniform framework of plant was maintained by light pruning on 13th December. Organic manures were applied 2 to 3 days after pruning. Full dose of manure was applied as a basal dose. Irrigation were given to the plot at an interval of 8-10 days. Regular weeding and plant protection were carried out. Five plants were taken in each treatment in each replication for recording the data. The cut flowers were harvested at tight bud stage. Statistical analysis of the data was carried out by the methods suggested by Gomez and Gomez (1984).

RESULTS AND DISCUSSION

The experimental findings obtained from the present study have been discussed in following heads :

Average number of flowers :

From the data presented in Table 1, it was revealed that number of flowers per plant, per plot and per hectare was influenced by the application of different treatments of the manures and fertilizers that showed significant results. From the data presented in Table 1, it was

Table 1: Average number of flowers

Treatments	Flowers per plant	Flowers per plot	Flowers per ha (Lakhs)
T ₁ (control)	17.21	430.25	1.86
T ₂	29.38	734.50	3.18
T ₃	34.45	861.25	3.73
T ₄	19.27	481.75	2.09
T ₅	22.15	553.75	2.40
T ₆	25.41	642.75	2.70
T ₇	27.12	678.00	2.90
S.E.±	0.60	15.50	0.08
C.D. (P=0.05)	1.80	46.50	0.24

Table 2: Economics of flower production

Treatment	Cost of cultivation / ha excluding cost of treatment input (Rs.)	Cost of treatment input ((Rs.)	Total cost of cultivation (Rs.)	Gross value of produce (Rs.)	Net income (Rs.)	Benefit : Cost ratio
T ₁ (control)	36,172.24	1,984.32	38,156.56	1,30,200	92,043.44	1:2.41
T ₂	36,172.24	7,688.24	43,860.48	2,22,600	1,78,739.52	1:4.07
T ₃	36,172.24	13,392.16	49,564.37	26,1664	2,12,099.63	1:4.27
T ₄	36,172.24	2,358.24	38,530.48	1,46,300	1,07,769.0	1:2.79
T ₅	36,172.24	2,762.16	38,934.4	1,68,000	1,29,065.6	1:3.31
T ₆	36,172.24	3,486.24	39,658.48	1,89,000	1,49,341.52	1:3.76
T ₇	36,172.24	4,992.16	41,164.40	2,03,000	1,61,835.6	1:3.93

observed that maximum number of flowers per plant were recorded in treatment T₃ (34.45). The minimum number of flowers per plant was recorded in treatment T₁ (17.21).

The data regards to the number of flowers per plot presented in Table 1 showed significant findings. From the data it was observed that the treatment T₃ (861.25) was found superior over rest of the treatments followed by treatment T₂ (734.5). The treatment T₁ (430.25) was found with minimum number of flowers per plot. From the data presented in Table 1, it was observed that the treatment T₃ (3.38 lakhs) was found significantly superior over rest of the treatments. The minimum number of flowers per hectare was observed at treatment T₁ (control) with 1.86 lakhs flowers per hectare. The same results were reported by Hidalgo and Harkess (2002) in chrysanthemum.

Economics of flower production :

From the data recorded in Table 2 indicated that the highest returns (Rs. 2.12 lakhs) were obtained with the treatment T₃ (50% RDF+ 50% Vermicompost). Whereas, treatment T₁ (75 % RDF + 25% Vermicompost) stood second with net return of 1.78 lakhs followed by the treatment T₇ (1.61 lakh) and T₆ (1.49 lakh). However, the lowest returns were obtained at the treatment T₁ (control) with 0.92 lakh.

From the data of Benefit : Cost ratio, it was found that the treatment T₃ was found most beneficial among all the treatments in respect of benefit i cost ratio and recorded the highest ratio (1:4.27) followed by the

treatment T₂ (1:4.07), T₇ (1:3.93) and T₆ (1:3.76). However, the lowest ratio (1:2.41) was recorded by the treatment T (control).

These results are in accordance with the results noticed by Barreto *et al.* (2002) in gerbera and Hidalgo and Harkess (2002) in chrysanthemum.

Conclusion :

From the investigation it was concluded that the treatment 50% RDF + 50% Vermicompost recorded highest returns and Benefit: Cost ratio in Hybrid Tea Rose Cv. Gladiator.

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