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RESEARCH ARTICLE

PERFORMANCE OF SNAKE GOURD (*Trichosanthes Anguina* L.) VARIETIES ON FLOWERING AND FRUITING ATTRIBUTES

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ABSTRACT

Snake gourd (*Trichosanthes Anguina* L.) is an important Cucurbitaceous vegetable and has been traditionally grown due to its easy cultivation and short duration Performance of Snake Gourd (*Trichosanthes Anguina L.)* Varieties on Flowering and Fruiting Attributes. An experiment was conducted by Randomized block design to characterize and assess the growth and flowering attributes collected from different parts of South India at the Department of Horticulture, Annamalai University. Data were recorded for eight characters. Variations have been observed in different characters like days to first male flowering, days to first female flower opening, Number of fruits per plant, Fruit length(cm),Flesh thickness(cm), Fruit weight (g), Fruit yield (kg/plant) and Number of seeds per fruit. The range observed for days to first male flower opening (18.38 to 46.50), days to first female flower opening (28.88 to 57.33), Number of fruits per plant(7.00 to 27.50), Fruit length(34.73 to 175.99), Flesh thickness(0.40 to 1.17), Fruit weight(292.70 to 970.71), Fruit yield/plant(3.06 to 10.4g) and Number of seeds per fruit (22.18 to 90.75).

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INTRODUCTION

Snake gourd (*Trichosanthes anguina L.*) belonging to the family cucurbitaceae having chromosome number 2n=22. (Chakrabarti, 1982), sub-family cucurbitaceae. It is originated in Indo-Malayan region. It is an annual, day neutral, herbaceous and climbing type of vegetables. It is important food items for solving nutritional problems in India. It contains considerable amount of protein (0.5%) , fat (0.3 %), minerals (0.5%) , fiber (0.5 %) and carbohydrates (33%). (Gopalan *et al*., 1982). Ripe fruits are rich in vitamin –A, there are number of cultivars with wide range of variability in size, shape and colour of fruits (Rashid 1993). Snake gourd is a monoecious crop and highly cross pollinated crop and the information pertaining to the morphological characteristics are not available, so much for delineating standardization. Therefore the study was under taken to delineate the characterization and evaluation of snake gourd genotype for selecting the best one.

MATERIALS AND METHODS

The experiment was laid in Randomized Block Design with three replication, seeds were first allowed to soak in water for 48 hours and then planted in the pits with the recommended package of practise, followed by Tamil Nadu Agricultural University and observations were recorded on each plant such as days to first male flower opening, days to first female flower opening, number of fruits per plant, fruit length (cm), fruit girth (cm), flesh thickness (cm), fruit weight (g) and fruit yield (kg/plant). Number of days was counted from the date of germination to date of first male and female flower opened.

RESULTS AND DISCUSSION

Significant variations were recorded among the present trial on flowering characteristics pertaining to days to first male flower opening and to first female flower opening. The genotype G6(IC-212484, NBPGR, Trichur, kerala) registered earliest flowering in 18.38 days. These results are similar to the findings of Uddin *et al*., (2007) in snake gourd. The days to first female flower opening ranged from 28.88 days to 57.33 days. The genotype G6(IC-212484, NBPGR, Trichur, kerala) was found to be earliest in flowering in (28.88 days).

Fruit characteristics: Number of fruits per plant, fruit length (cm), flesh thickness (cm), single fruit weight (g) and fruit yield per plant showed significant variation among the genotypes. Wide range of variability was found in case of number of fruits per plant. The mean performance of fruit ranged from 7 to 27.50. The genotype G2 (Trichy Local, Tamil Nadu) showed the maximum number of fruits per plant(27.50). Yield of snake gourd significantly varied among the snake gourd lines.

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Table 1. Mean performance of snake gourd genotypes for various characters

Genotype	Days to first male flower opening	Days to first female flower openig	Number of fruits per plant	Fruit length	Fruit thickness(cm)	Fruit weight(g)	Fruit yield (kg per plant)	Number of seeds per fruit
G1	36.83	47.50	8.00	65.95	0.40	359.30	3.06	41.80
G2	31.50	37.67	27.50	65.20	0.77	428.00	9.83	55.00
G3	33.00	45.58	10.19	84.60	1.05	887.44	10.49	22.18
G4	45.17	57.33	11.50	25.43	0.95	552.50	6.30	70.83
G5	41.50	48.83	8.33	10.20	0.55	741.83	6.62	73.33
G6	18.38	28.88	9.69	124.38	0.64	864.15	7.36	44.75
Cd	3.65	6.34	7.58	18.02	0.08	25.18	2.12	9.46
SEd	1.82	3.15	3.67	9.01	0.03	12.97	1.05	4.75

The maximum fruit yield per plant was obtained from the genotype G3 (Michaelpalayam Local, Tamil Nadu) (10.49kg).

The mean performance for fruit length ranged from 34.73 to 175.79 cm. The longest fruit length was obtained in genotype G5 (PKM-1, Tamil Nadu) (175.79cm). These results are in accordance with the findings of Varghese (1991). The flesh thickness was highest in the genotype G3 (Michaelpalayam Local, Tamil Nadu) (1.05cm). The lowest flesh thickness was registered in genotype G1 (Nagerkovil Local, Tamil Nadu) (0.40cm). Number of seeds per fruit ranges from 22.18 to 90.15. The genotype G3(Michaelpalayam Local, Tamil Nadu) recorded the minimum number of seeds The genotypes G2 (Trichy Local, Tamil Nadu), G3 (Michaelpalayam Local, Tamil Nadu) showed better performance in respect of number of fruits per plant, fruit length (cm), single fruit weight and fruit yield per plant (kg).

REFERENCES

Chakarabati AA. 1992. Fasicles of Flora of India II.Cucurbitaceae. Botanical Survey of Hawara.WB, p.136.

Gopalan C. Ramasastri BV., Balasubrmanian SC. 1992). Nutritive values of Indian food. Indian Council of Medical Research, National Institute of Nutrition, Hyderabad, India.

Rashid, MM. 1993. Sabjibiggan (In Bangla).1st edition.Bangla Academy.Dhaka. Bangladesh.

Uddin Z. Khatoon R. Rashid MA. 2007-2008. Evaluation of snake gourd germplasm. Annual Research Report on Horticulture crops. P-52-54.

Varghese, P. 1991. Heterosis in snake gourd (Trichosanthes anguina L).M.S. Thesis Kerala Agricultural University, Kerala, India.

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