The Asian Journal of Horticulture; Vol. 5 No. 2; (December, 2010) : 491-494

Received : August, 2010; Accepted : December, 2010

Research Paper

Effect of graded levels of nitrogen and seed rate on growth and flowering of fenugreek (*Trigonella foenum-graecum* Linn) cv. RMT - 1

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ABSTRACT

An experiment with different graded levels of nitrogen and seed rate was carried out on fenugreek at Department of Horticulture, Marathwada Agricultural University, Parbhani (M.S.). Increased plant height (66.58 cm) was observed at harvest stage by seed rate of 30 kg/ha along with 100 kg N/ha. Highest number of branches (6.78) was observed by seed rate of 40 kg/ha along with 75 kg N/ha. Highest number of leaves (270.50) was recorded by 30 kg seed/ha along with 100 kg N/ha. Highest east-west spread (24.67 cm) and north-south spread. (21.33 cm) was recorded by treatment with 40 kg seed rate/ha along with 125 kg N/ha. While in case of flowering, minimum number of days required (53.38 days) and minimum number of days for 50 % flowering was taken by treatment of 30 kg seed rate along with no nitrogen application.

Bommi, P.V., Jinturkar, S.P., Barkule, S.R., Bhosale, A.M. and Noor, Syed. (2010). Effect of graded levels of nitrogen and seed rate on growth and flowering of fenugreek (*Trigonella foenum-graecum* Linn) cv. RMT - 1, *Asian J. Hort.*, **5** (2) : 491-494.

Key words : Fenugreek, Nitrogen, Seed rate

Fenugreek (*Trigonella foenum-graecum* Linn.) is one of the most important popular vegetable, consumed all over the contry. It is annual herb, belongs to the genus *Trigonella*, species *foenum – graecum* and family leguminoseae. Fenugreek being a quick growing vegetable, area under the cultivation of this crop is increasing day by day. Actual district wise statistical data on area under the cultivation of this crop is not available but it is grow under almost all the districts of Marathwada. Among the improved technique use of fertilizer and seed rate/ha also affect the leaf and seed yield potentiality. Yield of fenugreek leaf and seed can be increased by application of nitrogen and seed rate/ha. Information on nitrogen application and various seed rate/ha for higher seed production of fenugreek is not available in our region. Very limited research work on seed rate/ha and fertilizer requirement of fenugreek for higher growth and seed production has been reported by very few research workers in other part of the country but in Marathwada region of Maharashtra no body worked on these aspects, hence, the experiment on seed rate and nitrogen requirement was undertaken.

MATERIALS AND METHODS

The study was carried out at Department of Horticulture, Marathwada Agricultural University, Parbhani (M.S.). In order to study the effect of graded levels of nitrogen and seed rate on vegetative growth and flowering of fenugreek cv. RMt-1 was laid out in FRBD with three replication with four different levels of nitrogen and three levels of seed rates.

Treatment details

Nitrogen levels	Seed rates
N_0-No nitrogen	S_1-20 kg seed/ha
N_1-95 kg N/ha	S_2-30 kg seed/ha
N_2-100 kg N/ha	S_3-40 kg seed/ha
N_3-125kg N/ha	

The experimental site was having uniform black cotton type soil with good drainage. All standard cultural practices were adopted for cultivation of experimental plots and growth and flowering observation were recorded at regular interval by selecting five plants from each plot. Data were analysed statistically.

RESULTS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarised under following heads:

Growth parameters:

Height of plant:

Date presented in Table 1 revealed that mean height