



Effect of graded levels of nitrogen and seed rate on yield and yield parameters of fenugreek (*Trigonella foenum-gracum* 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.). Highest pod setting (6.87) was observed by treatment of 20 kg/ha seed rate along with no nitrogen. While treatment of 40 kg/ha seed rate and 75 kg N/ha recorded highest number of pod per plant (27.17), maximum weight of 100 pod (30.33g), maximum number of seed per pod (16.1) and maximum seed yield per pod (0.167 g). Where as highest weight of 1000 seed (11.14 g) was recorded by treatment of 30 kg seed rate/ ha along with 100 kg N/ha.

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Key words : Fenugreek, Seed rate, Nitrogen

Fenugreek (*Trigonella foenum-gracum* Linn.) is one of the most important popular seed spice cultivated on 1 lakh hectare area with annual production of 1 lakh tones. It is commonly known as 'methi'. There are two types of methi, one is fenugreek or common methi and other 'Champa' or "Kasuri" methi. Common methi is cultivated almost all over the country but grows better in the north than in the south. Kasuri methi is more suitable for cooler North-Western part. Methi seeds have a great industrial value, seeds are used as dye and for extraction of alkaloids and steroids. As a medicinal herb, the seed of fenugreek is an official drug according to European dispensaries. As the spice the seed is the important component of the curry powder but is also used in Chantany, Sambhar and different spice mixtures. Fenugreek is cultivated in almost all districts of Marathwada region of Maharashtra by traditional cultural method. The improved techniques for cultivation of fenugreek involve use of fertilizers and seed rate/ha that affect seed yield potential. Very little research work on seed rate/ha and fertilizer requirement of fenugreek for higher seed production has been reported by very few research workers, in other part of 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 yield and yield parameters of fenugreek cv. RMT-1 the experiment was laid out in FRBD, with three replication and with four different levels of nitrogen and three levels of seed rates.

Treatment details

Nitrogen level	Seed rates
N ₀ – no nitrogen	S ₁ – 20 kg seed/ha.
N ₁ – 75 kg N/ha.	S ₂ – 30 kg seed/ha.
N ₂ – 100 kg N/ha.	S ₃ – 40 kg seed/ha.
N ₃ – 125 kg N/ha.	

The experimental site was having uniform black cotton soil with good drainage. All standard cultural practices were adopted for cultivation of experimental plot and yield and yield parameter observations 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 have been presented in the following sub heads:

Yield parameters :

Days required for pod setting :

Data presented in Table 1 indicated that treatment S₂(5.64 days) recorded significantly less number of days for pod setting. As regard effect of nitrogen, treatment N₀(6.55 days) recorded maximum days for pod setting.