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Effect of foliar sprays of growth regulators on growth and seed yield of methi (*Trigonella foenum-graecum* L.) cv. PUSA EARLY BUNCHING

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ABSTRACT

The present study was conducted to find out which Bioenzyme and plant growth regulators (PGRs) were enhancing the seed yield of Methi. During Rabi season, 2000, plants were sprayed with bioenzymes and PGRs at 25,50 and 75 days after sowing.These fourteen treatments were replicated in three replications.Treatment T_6 (Novazyme 2ml/lt) produced maximum seed yield. It was followed by T_3 (Fulltoss 2ml/lt) and T_2 (Biozyme 2ml/lt). Treatment T_3 (Fulltoss 2ml/lt) recorded early flowering and pod setting.

Key words : Methi, Plant growth regulator (PGR), Biozyme, Yield.

INTRODUCTION

Methi (*Trigonella foenum-graecum* L.) is an important minor seed spice. Plant growth regulator and Biozyme application is important and essential for improving the vegetative growth and yield. Effect of PGRs and Biozymes were studied in various major and minor spices and shown good response. However, it has not been intensively studied in Methi. Sharma (1995) reported that increased fruits per plant due to triacontanol (7.5 ppm) in Tomato.Gulshan Lal and Lal (1998) reported reduced number of days for 50 % flowering in Okara Cv. Pusa Sawani. Looking to the efforts in another crops, it has been found that the PGR's and Bioenzymes are useful for increasing plant height and seed yield of methi. Therefore, the present experiment was designed to study the effect of different PGRs and bioenzymes on growth and yield parameters of methi cv. PUSA EARLY BUNCHING.

MATERIALS AND METHODS

The study was conducted during Rabi season 2000. The details of treatments along with symbols are given below.

S. No.	Symbols	Details of treatment
1	T_1	NAA 20 ppm
2	T_2	Biozyme 2 ml/lt
3	T_3	Fulltoss 2 ml/lt
4	T_4	Humicil 2 ml/lt
5	T_5	Multizyme 2 ml/lt
6	T_6	Novazyme 2 ml/lt
7	T_7	Novacharge 2 ml/lt
8	T_8	Plantozyme 2 ml/lt
9	T_9	Supercropenzyme 2 ml/lt
10	T_{10}	N-Triacontanol 2 ml/lt
11	T_{11}	Supercropecharge 2 ml/lt
12	T_{12}	Shaktizyme 2 ml/lt
13	T_{13}	Water spray
14	T_{14}	Control

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The treatments were replicated three times in Randomized Block Design. The size of gross sown area was 383.76 Sq.M. and net sown area was 264.6 Sq.M. One set sprayed with distilled water has served as control. The plants were treated with each chemical thrice at 25, 50 and 75 days of sowing as foliar spray. Five plants were selected from each treatment for taking observation plant height, number of branches, number of leaves and spreads of plant (East-West& North –South) number of five plants were recorded at 15 days interval. Mean days required for appearance of flower were recorded for all the treatments from the date of sowing to first flower appeared. After flowering, ten flowers were selected randomly from each plot and labeled and days required for pod setting were recorded, numbers of pods of each observational plant from each plant were counted and from this average number of pods per plant were calculated. Other observations like average length of pod (cm), weight of 100 pods (g), number of seeds per pod, seed yield per plant (g),seed yield per hectare (qts), straw yield per plant (g) and straw yield per hectare (qts) as per parameters recorded.

RESULTS AND DISCUSSION

The data given in table1 showed that the plant height recorded after 90 days of sowing revealed that treatment T_{10} (N-Triacontanol 2 ml/lt) showed maximum plant height (78.03cm) as compared to other treatments. The