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RESEARCH ARTICLE

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Performance of mesta genotypes in Northern Transitional zone of Karnataka

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ABSTRACT

Eleven genotypes of mesta were evaluated for yield and yield attributes during *Kharif* 2002 at Main Agricultural Research Station, Dharwad. Significant differences were observed among the genotypes with respect to plant height, basal stem diameter, total dry matter production, days to 50 per cent flowering, 1000-seed weight, seed yield, stalk yield and fibre yield. Among the genotypes, AS-73 CP-560, HS-2, AMV-4 and AMV-3 recorded significantly higher fibre yield as well as fibre related parameters plant height, basal stem diameter, total dry matter production and stalk yield. The seed yield was significantly higher in HC-583 and AMC-108 and these genotypes had significantly lower fibre yield. Thus, these genotypes may be classified as fibre yielding and seed yielding types and may be used as per the need basis for cultivation or for further improvement programme.

KEY WORDS :

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INTRODUCTION

Mesta (*Hibiscus* spp.) is one of the important fibre crops and stand next to jute in production. Mesta cultivation is widely scattered in eastern, northeast and southeastern states of India. It is the nearest alley of jute and plays an effective role in supplementing the short supply of row material in jute industry. It is also used as a raw material in the paper industry as a substitute of bamboo and eucalyptus (Sheshadri *et al.*, 1987). Though, this crop is well suited and adopted to northeastern parts of the country. It is capable of growing luxuriantly even under adverse and wide range of soil and climatic conditions (Sinha and Saha, 1980). Hence, there is a scope to extent its cultivation in the non-traditional areas.

The available information on adaptability, growth behavior and yield performance of mesta genotypes under the transitional parts of North Karnataka. Hence, the present investigation was undertaken to know the performance of mesta genotypes in Northern Transitional Zone.

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MATERIALS AND METHODS

The field experiment was conducted at Main Agricultural Research Station, University of Agricultural Sciences, Dharwad during *Kharif* 2002 under rainfed condition.

The soil was medium deep black with pH 7.1 and EC 0.21 dS m^{-1}. The experiment was laidout in a Randomized Block Design with eleven mesta genotypes (AMV-1, AMV-2, AMV-3, AMV-4, AS-73 CP-560, HS-1, HS-2, HS-4288, HS-7910, AMC-108 and HC-583) replicated thrice. The seeds were sown in the spacing of 30 x 10 cm and fertilizer applied 40:20:20 kg NPK per ha. Routine cultural operations were attended to keep the plot free from weeds.

The observations on yield and yield parameters were recorded at harvest. The data were subjected to statistical analysis.

RESULTS AND DISCUSSION

The data on yield and yield parameters recorded in mesta genotypes are presented in Table 1. There were significant differences among the genotypes with respect to all the yield and yield parameters. The genotype AS-73 CP-560 recorded significantly higher plant height (211.23) followed by all other genotypes except AMC-108 and HC-583, whereas, significantly lower plant height was recorded in AMC-108 and HC-583. Such genotypic differences in