



Effect of planting dates on the performance of mungbean and urdbean varieties sown during spring season

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Abstract : Field experiments were conducted during spring season of 2002 and 2003 at Govind Ballabh Pant University of Agriculture and Technology, Pantnagar to study the performance of mungbean and urdbean varieties under different dates of planting. Results revealed that March 12 planting of mungbean and urdbean produced significantly higher grain yield/ha and its attributes viz, grain yield/plant and number of pods/plant, whereas number of grains/pod and 1000-grain, weight were higher under February 20 planting. Number of pods/plant, grain yield/plant and grain yield/ha were significantly higher in Pant M-2 variety of mungbean and Narendra U-.1 of Urdbean. The increase in mungbean yield under March 12 over February 20 and April 1 planting were to the tune of 19.9, 26.8 and 25.1 per cent during 2002 and 2003, respectively. However, the reduction in urdbean yield under February 20 and April 1 as compared to March 12 planting was to the tune of 21.4, 29.1 and 18.9, 29.9 per cent during 2002 and 2003, respectively.

Key Words : Mungbean, Urdbean, Planting dates, Varieties

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INTRODUCTION

Mungbean [*Vigna radiata* (L.) Wilczek] and urdbean [*Vigna mungo* (L.) Hepper] are the important crops of summer season. The maximum yield potential of the crops during summer season can be exploited under appropriate combinations of variety, environment and agronomic practices. The environment to which crop is exposed varies with change in planting dates. In early planting, crop growth is affected due to relatively low temperature towards the end of winter. On the other hand late planting time causes delay in maturity and onset of rainy season hampers the quantity and quality of the grains. A number of short -duration elite varieties are, now a days, available which can be grown successfully during summer season. The present investigation was, therefore, carried out to study the effect of different planting dates and varieties on performance of mungbean and urdbean crop.

MATERIALS AND METHODS

Field experiments were carried out during spring seasons of 2002 and 2003 at Crop Research Centre of G.B. Pant University of Agriculture and Technology, Pantnagar. The soil of the experimental site was silty clay loam with neutral soil reaction (pH 7.2) having high organic carbon (1.06%) and medium available phosphorus (17.8 kg P/ha) and potassium (196.5 kg/ha) contents. Two sets of experiments, one each on mungbean and urdbean, were laid out in split plot design with three replications. In both the crops, treatments comprised of three planting dates (February 20, March 12 and April 1) were allocated randomly in main plots' and varieties (Narendra M-1, Pant M-2 and Pant M-5 of mungbean and Narendra U-1, Pant U-19 and Pant U-35 of urdbean) in sub plots. An uniform dose of 100 kg DAP (18% N and 46% P₂O₅) was applied as basal in both the experiments. Crops were planted in lines, 25 cm apart, using a seed rate of 40 and 30 kg/ha for urd and mungbean, respectively. Other agronomic practices were

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