Effect of Planting Date on Growth, Yield and Juice Quality of Sugarcane

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An experiment was conducted at the experimental farm of the Bangladesh Sugarcane Research Institute (BSRI), Ishurdi, Pabna from October, 2007 to March, 2009 under the AEZ 11 (This region includes the western part of the Ganges River Floodplain which is predominantly high land and medium highland. The area has complex mixtures of olive-brown silt loams and silty clay loams on the upper parts of floodplain ridges and dark grey mottled brown, mainly clay soils on ridge sites and in basins). The aim of the experiment was to find the effect of planting date on growth, yield and juice quality of sugarcane. The experiment was conducted on six planting dates from mid October to mid March the following year and was laid out in a randomised complete block (RCB) design with four replications. The highest germination percentage (68.29) was found in the October planting and this gradually decreased with the subsequent planting dates and the lowest of 53.32 per cent was recorded from the mid March planting. Growth characters like tillers, millable cane stalks, internodes per stalk, cane height, girth and unit stalk weight were significantly influenced by different planting dates. The values of all the yield contributing factors and quality parameters were higher in the crops planted in October and November compared to that planted in February and March. Maximum benefit-cost ratio of 1.79 was found from October planting followed by November planting and it gradually decreased with proceeded planting dates. The overall results revealed that October to November is optimum time for planting of cane and the month of February is suitable for late planting.

Keywords: Sugarcane, planting date, growth, yield and juice quality