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EFFECT OF FILTER PRESSMUED ON THE YIELD AND QUALITY OF SUGARCANE (CV. BF-162)

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ABSTRACT

A field study was conducted to determine the effectiveness of sugarcane filter presumed (FPM) on the yield and quality of sugarcane during 1990-92. FPM was applied in furrows of plant cane on a loam textured medium fertility soil. The study comprised seven treatments; check plot and three NPK levels viz 168-84-84, 168-112-112 and 212-112-112 kg ha^{-1} maintained from fertilizers alone as well as through filter pressmud. Total requirement of P was met from FPM and the remaining N and K need was fulfilled from fertilizer source. Data revealed that germination and tillering was not affected by any of the treatments. The data on mean cane yield indicate that all the treatments of 212-112-112, 168-112-112 and 168-84-84 from fertilizer source produced higher yield than the equivalent treatments from FPM. The statistical difference among the fertilizer source and 212-112-112 from FPM were non-significant whereas, the lowest N-P-K treatment from FPM produced lowest yield but statistically more than the check. No effect of FPM and fertilizer was observed on the quality of cane.

INTRODUCTION

Filter presumed (FPM) a by product of cane sugar industry is an enriched source of organic matter and contains substantial quantities of essential macro and micronutrients (Patil and Kale, 1983. Ibrahim et al 1983. Gunta et al. 1987). scarcity of phosphatic fertilizer coupled with the inordinate increase in NPK fertilizer prices have made it more important to study FPM use for the production of sugarcane. If proved beneficial it will not only solve the waste disposal problem of sugar industry, but also bulky organic matter source will certainly augment the physical properties and fertility of the soil. This probability was investigated in these studies.

MATERIALS AND METHODS

A field study was conducted at the Sugarcane Research Institute Farm, Faisalabad during the year, 1990-91 and 1991-92 on a sandy clay loam and loam textured soils respectively which was low in organic matter, adequate in available phosphorus and sufficient in potassium contents. the soil samples from 0-15 and 15-30 cm depths were taken before planting and analysed for various attributes like texture by Bouyoucos, (1962) method, pH 1:1 soil water (Campbell and others, 1948). The available phosphorus was estimated with 0.5 $NaHCO_3$ (Watanabe and Olsen, 1965). Organic matter by oxidation and titration with ferrous sulphate (Walklay, 1947) and $CaCo_3$ was determined by following the technique of William (1948).

The study included three treatments of 168-