RESPONSE OF SUGARCANE TO BIOCOMPOST PREPARED FROM FILTER CAKE AND STILLAGE

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ABSTRACT

To study the long term effect of biocompost prepared from filtercake and stillage of distillery on soil and cane health, a trial was conducted at Shakarganj Sugar Research Institute, Jhang during 1992-95. In plant crop biocompost was used alone and in combination with inorganic fertilizers and its residual effect was studies on first ratoon crop. The biocompost was again applied on 2nd ratoon alone and with inorganic fertilizer. Soil was analyzed before planting and after each harvest. Leaf tissues were also analyzed for P and K contents. The data were recorded on yield and quality attributes of cane crop. After three years available K was increased from 138 to 195 mg kg^{-1}, while ECe was reduced from 1.95 to 1.50 dS m^{-1} and P and O.M were sustained in the treatments where biocompost was applied. Residual effect of biocompost was quite pronounced in the first ratoon wherein all biocompost treatments applied to plant crop increased the P and K in leaf tissues with significant increase in cane yield than the application of fertilizer alone. In 2nd ratoon 25 t ha^{-1} biocompost incorporated with 75-50-0 NPK kg ha^{-1} increased cane yield by 36.11% over fertilizer alone. It could be concluded that 25 t ha^{-1} biocompost could save all K and half N and P with a significant increase in yield over fertilizer treatments. Biocomposting from filtercake and stillage is the best way to exploit the environment polluting effluents and to improve the soil and plant health.