The Effect of N-Fertilizer Rate and Row Spacing on Yield and Nutritive Value in Setaria Grass (Setaria anceps)

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Abstract

The role of various N-fertilizer rates and row spacings on yield and nutritive value in setaria grass (cv Nandi) was tried at Dongkenluang Sub-station of Chainat Forage Crop Station on rain fed having loamy soil condition, in 1982-1983. Split plot in RBD was used having urea rate as main plot with spacing being in the subplot. There were 4 levels of urea rate 0, 40, 80 and 100 Kgs/rai, and 3 levels in spacing; 30, 50 and 70 cm. The total cutting was 4 times through out this experiment. It was found that higher yield come from narrower row spacing and optimum urea rate (30 cm. + 80 Kgs urea/rai). For nutritive value, it was shown that there were no effect from row spacing, but urea did have the effect of crude protein and potassium content. Higher urea, higher protein and lower potassium was recieved (0, 40, 80 and 100 Kgs Urea/rai were 9.10, 9.14, 9.63 and 10.05 % protein and 3.97, 3.78, 3.37 and 3.25 % potassium, on dry matter basis respectively. Expectation for high yield and nutritive value of setaria grass (cv. Nandi) I year old, might be the 80 Kgs urea/rai with 30 cm. row spacing.

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