Response of Sudan Grass (S. bicolor + S. sudanense) to Spacing and Fertilizer Rates on Doembang Soils

Thipha Punyavirocha 1/ Malinee Sutthirat 2/ Waruni Phanitphon 2/
Chirawat Khemsawat 1/ Chanchai Nanidool 2/

Abstract

The experiment was carried out at ChaiNat Animal Nutrition Research Center in 1983/1984 to study the effect of spacings and chemical fertilizers application on the yield of Sudan grass. Design of experiment was split plot in randomized complete block with 4 replications. Spacings were main plot with 20, 30, 50 and 70 cm, and rates of mixed fertilizers (12-24-12) were subplot with 0, 40, 60 and 100 kg/rai.

The results indicated that : There were no significant differences on the yield of Sudan grass at the rates of 40 and 80 kg/rai of mixed

1/ ChaiNat Animal Nutrition Research Center.
2/ Division of Animal Nutrition, Department of Livestock Development.
2/ Animal Nutrition Laboratory Section, Division of Animal Nutrition, Department of Livestock Development.
fertilizers, but at the rate of 100 kg/rai gave significantly increased in yield ($P < .05$). As the spacing increased the yield of Sudax grass decreased ($P < .01$), the spacing on 20 cm. gave the highest yield and spacing on 50 and 70 cm. gave the lowest yield. Sudax grass gave the highest yield at the first harvesting and the yield decreased in the next harvesting respectively. Maximum DM yield of 8.382 kg/rai was obtained from 20 cm. spacing and fertilizer rate of 100 kg/rai. Heights before harvesting increased when the rate of fertilizers application were increased ($P < .05$) and spacings have no effect on the heights of grass. There were no difference on the chemical component of the grass in the experiment.