

Thesis Title Effect of cutting intervals on yields and persistences of Ruzi grass and Verano stylo in mixed swards.

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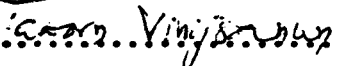
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ABSTRACT

Two experiments were carried out on the Korat soil series of the Khon Kaen University environment. The glasshouse experiment (experiment 1) studied the influence of frequency range of cutting on yield, nutrient value, and persistence of ruzi grass. The randomized complete block design used was composed of five cutting interval treatments which were 15, 30, 45, 60 and 90 days with eight replications. Seven rootstocks of ruzi grass were planted per pot. Grass was harvested by cutting at approximately 1.5 inches above the soil surface. Results showed that when the cutting interval was increased it gave more dry matter yield, crude fiber, density and root dry weight, and this was obviously shown for the 90 days cutting treatments. Percent crude protein and ash decreased with the more infrequent

cutting and were highest at the frequent cutting or cutting every 15 days. The results suggested to cut ruzi grass every 45 days for having both good yield and quality and caused no problems of persistence.

The field experiment (experiment 2) studied the influence of frequency range of cutting on yields and persistences of ruzi grass when grown in associations with Verano stylo. The randomized complete block design was composed of four cutting frequencies treatments which were 15, 30, 45 and 60 days with six replications. Seven rootstocks of ruzi grass were planted per hill at spacing 50 cm x 50 cm. Treated Verano stylo seeds with 80°C water for 10 minutes were surface sown on the planted grass plots at 8 kg/rai. The mixed swards was harvested by cutting at approximately 1.5 inches from ground level. The results demonstrated that infrequent cutting gave more dry matter yields of swards as compared to the frequent cutting treatments. The overall results for both dry matter yields and Verano stylo densities recommended cutting ruzi grass and Verano stylo mixed swards at 1.5 inches every 45 days or 60 days.