Effect of Defoliation Management and Rate of Nitrogen on Seed Yield and Seed Quality of Ruzi Grass (*Brachiaria ruziziensis*)

Chureerat Satjipanon¹/ Kanda Nakmanee²/ Chanchai Manidool¹/
Julasak Boonrat³/

Abstract

The effect of defoliation managements were 80, 80-120 (twice cutting 80 and 120 days after planting) and 120 days after planting and rates of nitrogen fertilizer were 0, 16, 32 and 64 kg. rai⁻¹ on seed yield and seed quality of ruzi grass was conducted at Chiang Yeon Animal Nutrition Station, Mahasarakam province in 1984 to 1986. Basal fertilizers were applied at rates of 10 kg N rai⁻¹ 10 kg. P₂O₅ rai⁻¹ and 10 kg. K₂O rai⁻¹ at planting date.

The results from two years experiment showed that for the first year maximum seed yield (32.6 kg. rai⁻¹) were obtained from defoliation 80 days after planting, but for the second year highest seed yield was obtained when did not defoliation (Many flowers were appeared in the treatment of defoliation at 120 days after planting in the first year.) was 61 kg. rai⁻¹ Effect of nitrogen fertilizer on the maximum seed yield was 14.8 and 48 kg. rai⁻¹ in the first and second year respectively at the rate of 64 kg. N rai⁻¹

* Research Project No 13-0201-29

¹/ Forage Crops Research, Animal Nutrition Division.
²/ Chaing Yeon Animal Nutrition Station, Mahasarakam.
³/ Agricultural Chemistry Division, Department of Agriculture.
There were no effect of defoliation management on 1,000 seed weight or purity of seed in the first year, but the effect was observed on seed weight and seed purity in the second year. Maximum seed weight (6.3 gms) was at 80 days after planting and maximum seed purity (75.80%) was at 80-120 days after planting in the two years experiment.

Fertilizer rate at 32 kg. N rai⁻¹ increased germination by 75% in the first year and 64% at 64 kg. N rai⁻¹ in the second year.

Increasing pure live seed in the first year (70 % at 32 kg. N rai⁻¹) results of this study indicate that high seed yield and seed quality should be cut at 80 days after planting (14 August 1984 and 7 August 1985) and the rate of nitrogen was 64 kg rai⁻¹.