



SIMP I II Simpósio de Pecuária Integrada

Tema: Recuperação de Pastagens

13, 14 e 15 de Outubro de 2016 Sinop-MT

SEEDING FORAGE PEANUT IN ESTABLISHED *Brachiaria humidicola* PASTURES IN THE WESTERN AMAZON

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Successful introduction of legumes in established pastures depends, among other factors, of the land preparation methods used to temporarily reduce grass growth and competition. This study was conducted to test the hypothesis that forage peanut (*Arachis pintoi* cv. BRS Mandobi) can be successfully introduced into a *Brachiaria humidicola* pasture. Establishment methods tested were drilling after cultivation with two passes of disc harrow (DH) or rotary hoe (RH), and direct drilling (DD) 14 days after spraying with glyphosate at 720 g ai ha⁻¹. The experimental design was randomized complete block, with four replications. Treatments were applied to alternate 5 m strips in a 22 years old *B. humidicola* pasture, in Senador Guiomard-AC. Forage peanut was seeded at a rate of 12 kg ha⁻¹ of pure germinable seeds, using a four-line double disc direct drill, in lines 50 cm apart at 2-4 cm soil depth. Response variables evaluated in five transects, along the pasture strips sown with the legume, were: 1) initial stand (seedlings m⁻²) and frequency of occurrence of forage peanut, 28 days after sowing; and 2) botanical composition 56 days after sowing.



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Statistical analysis was performed using the SISVAR software, and treatment means were compared by the Tukey test at 5% probability. There was no effect of pre-sowing land preparation methods on initial stand (DH = 5.3 plants m⁻²; RH = 5.8 plants m⁻²; DD = 4.6 plants m⁻²) and frequency of occurrence of forage peanut (100%). Eight weeks after sowing, the contribution of forage peanut to the botanical composition was higher (P<0.05) in the pasture strips where it was sown with DD after glyphosate application (20%), when compared with DH (12%) and RH (10%), which did not differ from each other. The proportion of grass in the pasture strips that received RH (76%) and DD (58%) was not different (P<0.05), although it was higher (P<0.05) than in the pasture strips that received DH (43%). Weed incidence was higher (P<0.05) in pasture strips prepared with DH (45%), than in those that received DD (22%) and RH (14%), which did not differ from each other. These results indicate that the use of RH is effective in temporarily reducing grass growth, thus allowing successful introduction of forage peanut BRS Mandobi in cultivated strips of existing *B. humidicola* pastures. The use of this method also results in low weed incidence, and promotes the fast recovery of the existing grass. Therefore, the pasture can return to grazing after eight weeks of sowing the legume. However, in those areas where forage peanut is successfully introduced after DH or DD, the existing grass is more severely affected and weed incidence is higher. Consequently, the use of these methods for introducing forage peanut into established pastures of *B. humidicola* result in higher cost of weed control and a longer period of recovery, before returning the pasture to grazing.

Keywords: *Arachis pintoi*, BRS Mandobi, rotary hoe

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