Intercropping of soybean with *Urochloa* species

Julio Cezar FRANCHINI[1*], Osmar CONTE[1], Alvadi Antonio BALBINOT JUNIOR[1], Henrique DEBIASI[1], Sergio de Oliveira PROCÓPIO[2]
[1] Embrapa Soja, Rod. Carlos João Strass, Distrito de Warta, 86001-970, Londrina, PR, Brazil ;
[2] Embrapa Tabuleiros Costeiros, Av. Beira Mar, nº 3.250, 49025-040, Aracaju, SE, Brazil.
E-mail address of presenting author*: osmar.conte@embrapa.br

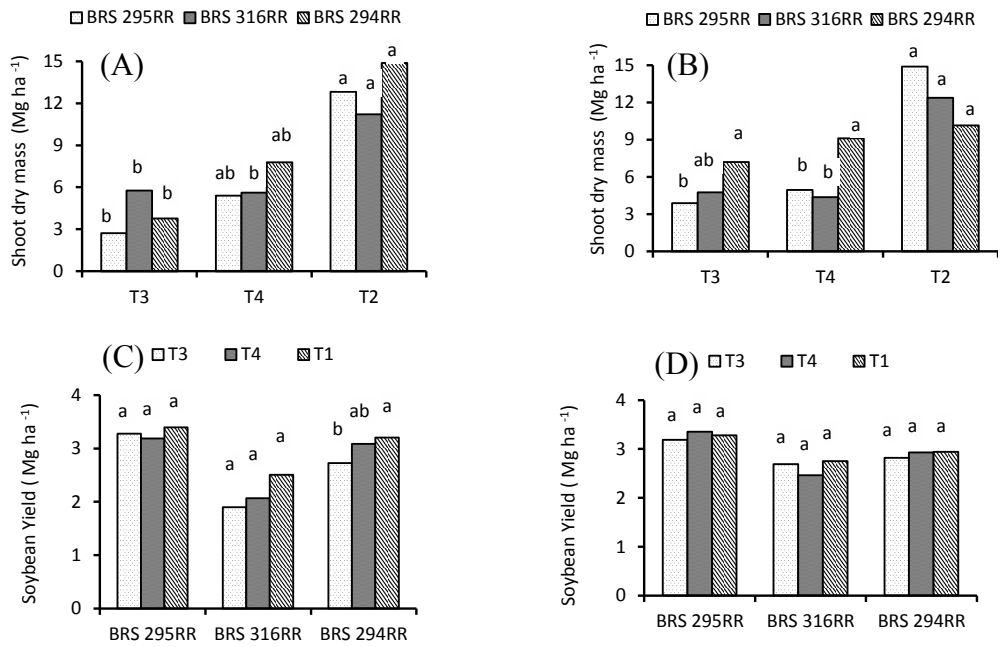
Introduction The fodder grass sowing can be performed at soybean vegetative phase, accelerating the formation of the pasture after the soybean harvest. Thus, this study aimed to evaluate the yield of glyphosate-resistant soybean cultivars intercropped with *Urochloa* species, under different fodder grass management.

Material and Methods

Six experiments, consisting of three soybean cultivars (BRS 295 RR, BRS 316 RR and BRS 294 RR) x two fodder grass species (*Urochloa ruziziensis* and *U. brizantha* cv. BRS Piatã) were carried out at Embrapa Soja Londrina, Paraná State, southern Brazil (23°11'S; 51°11'W; altitude 620 m). For each experiment, four treatments were evaluated: T1) soybean only; T2) fodder grass only; T3) soybean intercropped with fodder grass + glyphosate application (180 g a.i. ha^{-1}) to suppress the grass growth; and T4) soybean intercropped with fodder grass, without glyphosate application. The spacing between the soybean rows was 0.60 m and 200,000 plants ha^{-1}. Both fodder grass species were sown between soybean rows when the crop plants were V4 stage.

Results and Conclusions

Fig. 1. Shoot dry mass of *U. ruziziensis* (A) and *U. brizantha* (B) at soybean harvest, and yields of soybean intercropped with *U. ruziziensis* (C) and *U. brizantha* (D). Means compared by Tukey test ($p>0.05$)



The yields of the three soybean cultivars were not significantly affected by intercropping with the *Urochloa* grasses. The suppression of the growth of U. *ruziziensis* and *U. brizantha* with glyphosate was not necessary.