# Time of *Urochloa* sowing intercropped with soybean

Alvadi Antonio BALBINOT JUNIOR[1]*, Julio Cezar FRANCHINI[1], Henrique DEBIASI[1], Osmar CONTE[1], Flavia WERNER[2], André Sampaio FERREIRA[2], Antônio Eduardo COELHO[3]
[1] Embrapa Soja, Rod. Carlos João Strass, distrito de Warta, Londrina, 86001-970, PR, Brazil.
[2] Univ. Estadual de Londrina, Londrina, 86057-970, PR, Brazil. [3] Univ. Federal de Santa Catarina, Campus de Curitibanos, 89520-000, SC, Brazil.
E-mail address of presenting author*: alvadi.balbinot@embrapa.br

**Introduction**

The crop-livestock integration system is an important strategy for maximizing the use of water, light, nutrients, machines and hand labor. In Brazil, the cultivation of fodder grass species between two soybean cropping seasons has been an important component of this system. The fodder grass sowing can be performed at soybean vegetative phase, accelerating the formation of the pasture after the soybean harvest (Franchini et al., 2014). In this presentation, we report the soybean grain yield and shoot mass of two *Urochloa* species affected by two soybean cultivars and two times of fodder grass sowing.

**Material and Methods**

The field experiment was carried out at Embrapa Soja Research Centre, Londrina, Paraná State, southern Brazil (23º11'S; 51º11'W; altitude 620 m) during the 2014/2015 cropping season. Treatments included two soybean cultivars (BRS 359 RR and BMX Potência RR), two *Urochloa* species (*U. brizantha* cv. BRS Piatã and *U. ruziziensis*) and two times of fodder grass sowing between soybean rows (at V2 and V5 stages). The soybean yield, grain moisture and shoot dry mass of fodder species at soybean harvest were evaluated. The soybean yield values were corrected to 13% moisture content.

**Results and Conclusion**

Tab. 1. Soybean yield, grain moisture and shoot dry mass of fodder grass at soybean harvest in two *Urochloa* species and two sowing times. Data are means of two soybean cultivars and four replicates

| Treatments | Soybean yield (kg ha$^{-1}$) | Grain moisture (%) | Shoot fodder grass (kg ha$^{-1}$) |
|---|---|---|---|
| Soybean without fodder grass | 2,786 a[1] | 15,4 b | - |
| Soybean + *U. brizantha* cv. BRS Piatã sowed at V5 stage | 2,600 a | 15,8 b | 303 b |
| Soybean + *U. ruziziensis* sowed at V5 stage | 2,879 a | 15,8 b | 240 b |
| Soybean + *U. brizantha* cv. BRS Piatã sowed at V2 stage | 2,074 b | 19,2 a | 1,581 a |
| Soybean + *U. ruziziensis* sowed at V2 stage | 1,822 b | 19,7 a | 2,361 a |
| CV(%) | 17,2 | 16,1 | 30,7 |

[1] Means followed by the same letter within a column do not differ significantly by Scott-Knott test (p >0.05)

The sowing of *U. brizantha* cv. BRS Piatã or *U. ruziziensis* at V2 soybean stage allowed adequate grain yield and fodder grass establishment. This represents a significant innovation to improve the crop-livestock system in Brazil.

**Reference cited**

Franchini et al. (2014) Pesq. Agropec. Trop., v.44, n.2, p.119-126.