

Intercropping of sorghum with Congo grass (*Brachiaria ruziziensis*) on soybean succession at the rainy season

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Supplementary Table 1. Significance of the grain yield variables (GY), thousand grain weight (TGW), plant height (SPH), plant population (POP), dry matter yield of sorghum in the first (SDMY1C), second (SDMY2C) and third cuts (SMSS3C) of sorghum intercropped with *B. ruziziensis* in densities of 2, 4, 6, 8 and 10 viable pure seeds m⁻², Rio Verde.

Sources of variation	FD	GY	TGW	SPH	POP	SDMY 1C	SDMY 2C	SDMY 3C
Intercrop. Systems (S)	2	ns	**	ns	ns	**	**	*
Seeding Density (SD)	4	**	ns	ns	ns	ns	**	*
S x SD	8	**	*	ns	ns	ns	**	**
Intercrop.x Monocul.	1	ns	ns	ns	ns	*	**	**
C.V. (%)		16.62	11.11	3.18	10.60	18.32	24.30	22.38

** , * and ns: significant at 1% and 5% and not significant, respectively, by F test; CV: Variation coefficient; FD: free degree.

Supplementary Table 2. Significance of the variables of plant height (BPH), plant population (POP) and dry matter yield of *Brachiaria* in the first (BDMY1C), second (BDMY2C) and third cuts (BDMY3C) of sorghum intercropped with *B. ruziziensis* in the densities of 2, 4, 6, 8 and 10 viable pure seeds m⁻², Rio Verde.

Sources of variation	FD	BPH	POP	BDMY1C	BDMY2C	BDMY3C
Intercropping systems (IS)	2	**	**	**	ns	*
Seeding Density (SD)	4	ns	**	*	ns	**
IS x SD	8	ns	*	*	**	*
Intercrop.x Monocul.	1	**	ns	**	**	**
Monocultures	4	ns	ns	ns	ns	ns
C.V. (%)		14.2	8.7	16.8	17.3	22.8

** , * and ns: significant at 1% and 5% and not significant, respectively, by F test; CV: Variation coefficient; FD: free degree.

Supplementary Table 3. Significance variable total dry matter yield in the first (TDMY1C), second (TDMY2C) and third sections (TDMY3C) and total (TDMY1 + 2 + 3) and the soil cover in July (SCJ) and October (SCO) for sorghum intercropped with *B. ruziziensis* in densities of 2, 4, 6, 8 and 10 viable pure seeds m⁻², Rio Verde.

Sources of variation	FD	TDMY1C	TDMY2C	TDMY3C	TDMY1+2+3	SCJ	SCO
Intercrop. systems (IS)	2	**	ns	*	ns	ns	ns
Seeding Density (SD)	4	**	ns	**	ns	**	ns
IS x SD	8	**	**	ns	ns	**	ns
Intercrop. x Monocul.	1	**	**	**	**	**	ns
Monocultures	5	ns	ns	ns	ns	**	ns
C.V. (%)		13.4	16.5	19.3	14.5	6.8	52.4

** , * and ns: significant at 1% and 5% and not significant, respectively, by F test; CV: Variation coefficient; FD: free degree.

Supplementary Table 4. Significance of the variables of grain yield (GY), thousand grain weight (TGW), initial (IPOP) and final plant populations (FPOP), initial (IPH) and final plant heights (FPH), first pod insertion heights (FPIH), number of pods on the main stem with one (NPMS1G), two (NPMS2G), three (NPMS3G) and four grains (NPMS4G) and in secondary stems with one (NPSS1G), two (NPSS2G) three (NPSS3G) and four grains (NPSS4G), number of secondary stems (NSS) and number of pods total per plant (NPT) for soybean grown in succession to grain sorghum intercropped with *B. ruziziensis* in densities of 2, 4, 6, 8 and 10 viable pure seeds m⁻² in the 2014 off-season, Rio Verde.

Sources of variation	FD	GY	TGW	IPOP	FPOP	IPH	FPIH	FPH	NPMS 1G	
Intercropping systems (IS)	2	ns	*	ns	**	ns	ns	ns	ns	
Seeding Density (SD)	4	ns	ns	ns	*	ns	ns	ns	ns	
IS x SD	8	ns	*	ns	**	ns	ns	*	ns	
Intercrop.x Monocul.	1	**	*	ns	ns	ns	ns	**	ns	
Monocultures	5	**	ns	ns	**	ns	ns	**	ns	
C.V. (%)		15.9	12.2	15.1	12.6	10.6	10.8	5.3	49.5	
Sources of variation	FD	NPMS 2G	NPMS 3G	NPMS 4G	NPSS 1G	NPSS 2G	NPSS 3G	NPSS 4G	NSS	NPT
Intercropping systems (IS)	2	ns	ns	ns	ns	ns	ns	ns	ns	ns
Seeding Density (SD)	4	ns	ns	ns	ns	ns	ns	ns	ns	ns
IS x SD	8	ns	ns	ns	ns	ns	ns	ns	ns	ns
Intercrop.x Monocul.	1	ns	ns	ns	ns	ns	ns	ns	ns	ns
Monocultures	5	ns	ns	ns	ns	ns	ns	ns	ns	ns
C.V. (%)		40.2	22.5	37.7	117.4	81.9	77.2	110.0	40.4	33.2

** , * and ns: significant at 1% and 5% and not significant, respectively, by F test; CV: Variation coefficient; FD: free degree.