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Economic Analysis of systems "Santa Fé" (corn intercropped with brachiaria) in the southwestern region in the Brazilian Amazon

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Introduction Crop livestock systems (CLS) require appropriate level of technical, economic and administrative knowledge in order to ensure positive results and competitiveness. This research aimed to evaluate the economic performance of corn genotype intercropped with the grass *Brachiaria ruziziensis* in the Amazonic biome of Rondônia.

Material and Methods

The experiment was carry out in agricultural year of 2012/2013 at Embrapa's field in Porto Velho-Rondonia. The treatments correspond to four genotypes of corn intercropped with Urochloa ruziziensis in two systems of rotation and succession of culture began in 2008. [system 1: soybean (2008/9), corn silage (2009/10), soybean-sorghum grain (2010/11) and soybean (2011/12) & system 2: soybean (2008/9), fallow (2009/10), soybean-corn silage with *B. ruziziensis* (2010/11) and grazing (2012). The cost of production was constituted by expenditure with inputs, implantation and cultural practices, extern transport, Funrural and capital interests of working capital (06 months), calculated to an hectare of land (R$ 2,267.00/ha), based on the Agrianual (2012).

Results and Conclusions

Table 1. Economic analysis of CLSs systems through Variable Total cost (VT), Unit Total cost (Ut), Gross revenues (GR), Net revenues (NR), Benefit:Cost (BC), Contribution Margin (CM), Unit of Contribution Margin (UCM) and Opportunity Cost (OC)

System	Corn cultivar	Grain Yield		VT	Ut	GR	NR	BC	CM	UCM	OC
		kg/ha	Bags/ha	R$/ha					R$/ha		%/ha
1	BRAS3010	5991	99,9	2026,08	20,28	1998,56	-28,08	0,99	-28,08	-0,28	-0,20
1	BR 106	6600	110,0	2044,87	18,59	2200,23	155,13	1,08	155,13	1,41	1,10
1	LG6304YG	8974	149,6	2118,52	14,16	2992,53	873,48	1,41	873,48	5,84	5,58
1	SG6030YG	9894	164,9	2146,98	13,02	3298,75	1151,02	1,54	1151,02	6,98	7,08
2	BRAS3010	4316	71,9	1974,00	27,45	1438,65	-536,00	0,73	-536,00	-7,45	-4,39
2	BR 106	5636	93,9	2014,92	21,46	1878,13	-136,92	0,93	-136,92	-1,46	-1,03
2	LG6304YG	5899	98,3	2023,10	20,58	1966,31	-57,10	0,97	-57,10	-0,58	-0,42
2	SG6030YG	7053	117,6	2059,00	17,51	2352,13	293,00	1,14	293,00	2,49	2,04

The genotype BRS 3010 (system 1) presented the lowest cost of total production, however it presented, due to grain yield (revenue), the lowest cost x benefits ratio. The cultivar SG6030YG presented viability in both systems, better margin of contribution (CM) with the average opportunity cost in the systems of the 4,6 % in the period, showing economically viable in the 2012-2013 year. The highest performance and profitability were shown in the rotation systems of module 1. The consortium is dependent of the correct use of genotype and depends on the succession and system rotation used. The iLP is presented as a viable economic alternative, in order to recovery of degraded pasture in the region in North of Rondonia.

References cited

Agrianual (2012). FNP. São Paulo