

ENSAIO REGIONAL DE FORRAGEIRAS PARA OS CERRADOS DO DISTRITO FEDERAL, BRASIL

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O ensaio foi realizado no Centro de Pesquisa Agropecuária dos Cerrados (EMBRAPA/CPAC), situado a 35 km ao noroeste de Brasília e a 15°36' latitude sul local representativo dos Oxisols de Savana bem drenada, existentes na região. A altitude local é de 1170 m, precipitação anual de 1540 mm e temperatura média anual de 21°C (Figura 1). Os solos são característicos pela sua baixa fertilidade, acidez elevada e médios teores de matéria orgânica. (Quadro 1).

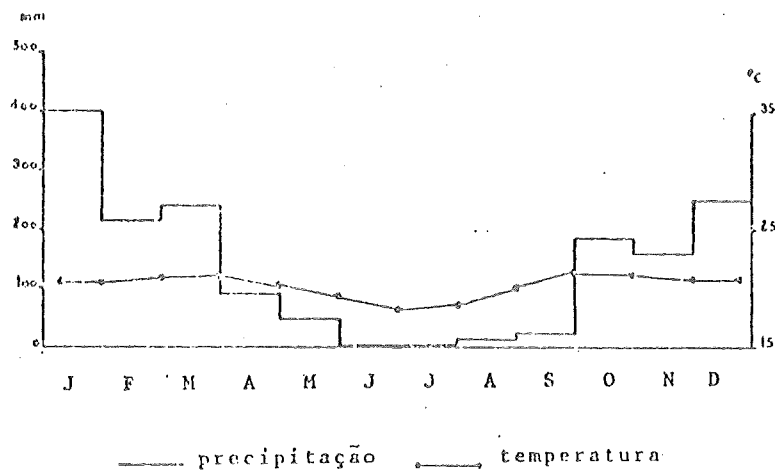


Figura 1. Características climáticas dos Cerrados do Distrito Federal (CPAC)

Quadro 1. Características físicas, químicas de um solo LVA de chapada. (CPAC)

Profundidade (cm)	Areia	Limo	Argila	MO	Sat. Al	pH ¹	Al	Ca+Mg	K	Sat. Base	P ²
	----- (%) -----						---(meq/100ml)---			(%)	(ppm)
0-20	16	24	60	3.6	55.2	4.5	0.42	0.30	0.04	4.5	09
20-40	15	22	63	2.5	62.3	4.3	0.48	0.26	0.03	3.8	07

1. Em H₂O (1:1)

2. Método Mehlich

Foram avaliados 20 ecotipos de leguminosas dos gêneros *Stylosanthes* (16), *Zornia* (3) e *Centrosema* (1). Até o momento foram efetuadas avaliações de estabelecimento e produção sendo duas no período de máxima precipitação e uma no período de mínima. (Quadro 2).

Quadro 2. Avaliações realizadas durante o estabelecimento e nas épocas de máxima e mínima precipitação

Semeadura	Estabelecimento	Produção ²	
		Mín. precipitação	Máx. precipitação
01/Jan. 1983	08/Março ¹ 1983	—	01/Dez. 1983
		07/Jun. 1984	10/Dez. 1984

1. Data da 1ª avaliação

2. Data do corte de uniformização

Os resultados parciais obtidos, encontram-se descritos a seguir:

1- Destacaram-se no estabelecimento, medido pelo número de plantas, cobertura do solo e resistência a pragas e doenças, os seguintes materiais: Todos os *Stylosanthes* sendo de maneira especial os *S. guianensis* CIAT 1292, 1297, 2191 e 2203 *S. capitata* 1019, 1318 e 2252, *S. macrocephala* 2039, 2053 e *S. viscosa* 1094. Dentro do gênero *Zornia*, se destacaram a *Z. latifolia* 728 e *Z. brasiliensis* 7485. A *Centrosema macrocarpum* 5065 não apresentou um bom estabelecimento.

2- Na avaliação da produção, dentro do período de máxima precipitação, observase um maior acréscimo da produção nos cortes de 6 a 12 semanas.

Os *S. guianensis* apresentaram grande potencial de produção e persistência, destacando-se os ecotipos 1292, 2203 e 1095. Os *S. capitata* apresentaram produções reduzidas, com boa capacidade de persistência e cobertura do solo. A espê-

cie de melhor comportamento produtivo foi a S. capitata 2252.

Os S. macrocephala obtiveram um bom desempenho no 1º ano, ecotipos 1281,2030, 2732, decrescendo no 2ºano. O mesmo comportamento produtivo foi do S. viscosa 745.

A Centrosema macrocarpum 5065, nas mesmas condições, não obteve um bom desempenho.

3- Observaram-se produções reduzidas, dentro do período de mínima precipitação, para a totalidade dos materiais.

4- Ocorrência de danos leves, causados por antracnose, nos Stylosanthes guianensis e com maior intensidade nos S. capitata. Ataque intenso de micoplasma na Zornia latifolia. Todos os ecotipos onde foram registrados algum ataque, não se verificou morte de plantas.

5- Ataque intenso, no 2º ano de avaliação, de insetos comedores nos S. guianensis, S. capitata 2252 e S. viscosa.

PERIODO DE ESTABLECIMIENTO PROMEDIO Y COEFICIENTE DE VARIACION DE ALTURA LOCALIDAD:PLANALTIMA BRASIL

ECOTIPO	LEGUMINOSAS :	4 SEMANAS		8 SEMANAS		12 SEMANAS	
		ALTURA (CM)	CV (%)	ALTURA (CM)	CV (%)	ALTURA (CM)	CV (%)
ZORNIA	LATIFOLI	728	14	10	17	15	20
STYLOSANTHES	CAPITATA	1019	14	8	13	12	18
STYLOSANTHES	VISCOSA	1094	12	6	12	11	28
STYLOSANTHES	GUIANENS	1095	23	12	18	13	22
STYLOSANTHES	CAPITATA	1097	20	7	12	12	20
STYLOSANTHES	MACROCEP	1281	20	10	17	17	29
STYLOSANTHES	ANGUSTIF	1292	16	17	14	22	13
STYLOSANTHES	GUIANENS	1297	20	14	14	20	26
STYLOSANTHES	CAPITATA	1318	16	9	14	14	23
STYLOSANTHES	GUIANENS	1335	14	12	11	13	23
STYLOSANTHES	MACROCEP	2039	26	8	23	20	24
STYLOSANTHES	MACROCEP	2053	19	7	14	12	20
STYLOSANTHES	MACROCEP	2133	8	9	13	14	24
STYLOSANTHES	GUIANENS	2191	14	10	18	13	17
STYLOSANTHES	GUIANENS	2203	17	12	13	15	14
STYLOSANTHES	CAPITATA	2252	19	13	18	22	34
STYLOSANTHES	MACROCEP	2732	20	6	18	13	24
CENTROSEMA	MACROCAR	5065	18	15	18	31	12
ZORNIA	BRASILIE	7485	8	9	20	16	21
ZORNIA	BRASILIE	8025	12	7	43	16	42

PERIODO DE ESTABLECIMIENTO PORCENTAJE DE COBERTURA LOCALIDAD:PLANALTIMA BRASIL

ECOTIPO	LEGUMINOSAS :	4 SEMANAS		8 SEMANAS		12 SEMANAS	
		COBERTURA	DUNCAN	COBERTURA	DUNCAN	COBERTURA	DUNCAN
ZORNIA	LATIFOLI	728	1	5	C8	5	CEFC
STYLOSANTHES	CAPITATA	1019	1	2	CED	3	FCED
STYLOSANTHES	VISCOSA	1094	1	2	CED	3	FCED
STYLOSANTHES	GUIANENS	1095	1	3	CED	4	FCED
STYLOSANTHES	CAPITATA	1097	1	1	ED	2	FE
STYLOSANTHES	MACROCEP	1281	1	1	ED	3	FCED
STYLOSANTHES	ANGUSTIF	1292	1	10	A	15	A
STYLOSANTHES	GUIANENS	1297	1	4	A	6	CBD
STYLOSANTHES	CAPITATA	1318	1	5	C8	5	CEBD
STYLOSANTHES	GUIANENS	1335	1	1	CED	2	FED
STYLOSANTHES	MACROCEP	2039	1	2	CED	2	FED
STYLOSANTHES	MACROCEP	2053	1	1	ED	2	FED
STYLOSANTHES	MACROCEP	2133	1	2	CED	3	FCED
STYLOSANTHES	GUIANENS	2191	1	7	B	8	B
STYLOSANTHES	GUIANENS	2203	1	4	C8D	7	C8
STYLOSANTHES	CAPITATA	2252	1	1	ED	1	F
STYLOSANTHES	MACROCEP	2732	1	1	ED	2	FED
CENTROSEMA	MACROCAR	5065	1	1	ED	2	FED
ZORNIA	BRASILIE	7485	1	1	E	1	FE
ZORNIA	BRASILIE	8025	1	1	E	1	FE

ESTABLECIMIENTO	EVALUACION DE INSECTOS				LOCALIDAD: PLANALTIMA				BRASIL				
	ECOTIPO	TRIPS AC.	PULGUILLA	COMEDOR	HEMIPTERO	SALIVAZO	BARRENAD.	PERFORAD.	OTRO1	OTRO2	OTRO3	OTRO4	OTRO5
LEGUMINOSAS :													
ZORNIA													
LATIFOLI	728	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAPITATA	1019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	1094	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	1095	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	1097	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	1291	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	1292	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	1297	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	1318	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	1335	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	2133	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	2191	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	2203	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	2252	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	2732	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CENTROSEMA	5065	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZORNIA	7485	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZORNIA	8025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ESTABLECIMIENTO	EVALUACION DE ENFERMEDADES				LOCALIDAD: PLANALTIMA				BRASIL					
	ECOTIPO	NEGRA	MARRON	NARAN.	CREMA	MARRP.	NARAP.	NEGRA	TALLO	MARRON	CHANC.	MARCN.	COLOR.	1. G. P. G.
LEGUMINOSAS :														
ZORNIA														
LATIFOLI	728	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	1019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	1094	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	1095	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	1097	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	1291	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	1292	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	1297	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	1318	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	1335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	2039	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	2033	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	2133	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	2191	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	2203	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	2252	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	2732	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CENTROSEMA	5065	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZORNIA	7485	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZORNIA	8025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EVALUACION : 1

MAXIMA PRECIPITACION PRODUCCION DE MATERIA SECA KG/HA LOCALIDAD:PLANALTIMA BRASIL

ECOTIPO	3 SEMANAS			6 SEMANAS			9 SEMANAS			12 SEMANAS		
	MS, KG/HA	DUNCAN	DUNCAN	MS, KG/HA	DUNCAN	DUNCAN	MS, KG/HA	DUNCAN	DUNCAN	MS, KG/HA	DUNCAN	DUNCAN
LEGUMINOSAS :												
ZORNIA	728	53	D	60	C	D	190	GEF	455	SHI	296	
STYLOSANTHES	1019	60	DC	23	C	C	46	G	60	I		
STYLOSANTHES	1094	230	A	453	BA	BA	716	BAC	2090	RA		
STYLOSANTHES	1095	133	RDAC	266	BC	BC	366	GEFDC	895	GEFHD		
STYLOSANTHES	1097	63	DC	20	C	C	90	GF	105	I		
STYLOSANTHES	1281	210	A	120	C	C	460	EFDC	1095	GEFCD		
STYLOSANTHES	1292	123	BDAC	90	C	C	293	GEFD	820	GEFHD		
STYLOSANTHES	1297	133	BDAC	150	C	C	326	GEFD	710	GEFHI		
STYLOSANTHES	1318	50	D	40	C	C	130	GF	215	HI		
STYLOSANTHES	1335	156	BDAC	133	C	C	343	GEFD	635	GEFHI		
STYLOSANTHES	2039	223	A	263	BC	BC	633	BDC	1380	ECD		
STYLOSANTHES	2053	60	DC	23	C	C	46	G	190	HI		
STYLOSANTHES	2123	66	DC	126	C	C	143	GEF	435	SHI		
STYLOSANTHES	2131	83	DC	210	BC	BC	356	GEFDC	685	GEFHI		
STYLOSANTHES	2203	203	RA	170	C	C	630	BDC	945	GEFCD		
STYLOSANTHES	2252	100	BDC	593	A	A	900	RA	2515	A		
STYLOSANTHES	2732	130	BDAC	210	BC	BC	506	EDC	1505	BDC		
CENTROSEMA	5065	165	BAC	50	C	C	80	G	200	HI		
ZORNIA	7485	63	DC	223	BC	BC	613	BDC	1600	SC		
ZORNIA	8025	150	BDAC	573	A	A	1030	A	1225	EFCD		

MAXIMA PRECIPITACION PORCENTAJE DE COBERTURA LOCALIDAD:PLANALTIMA BRASIL

ECOTIPO	3 SEMANAS			6 SEMANAS			9 SEMANAS			12 SEMANAS		
	COBERTU.	DUNCAN	DUNCAN	COBERTU.	DUNCAN	DUNCAN	COBERTU.	DUNCAN	DUNCAN	COBERTU.	DUNCAN	DUNCAN
LEGUMINOSAS :												
ZORNIA	728	23	EBDFC	26	BAC	BAC	33	EFDC	57	EF		
STYLOSANTHES	1019	36	BAC	18	BAC	BAC	25	EFDC	65	ED		
STYLOSANTHES	1094	21	EGDFC	16	BAC	BAC	20	EPD	80	BDAC		
STYLOSANTHES	1095	25	EGDFC	34	RA	RA	46	BC	97	A		
STYLOSANTHES	1097	20	EGDFC	20	BAC	BAC	26	EFDC	65	ED		
STYLOSANTHES	1281	44	BA	36	A	A	60	BA	97	A		
STYLOSANTHES	1292	15	GF	10	C	C	17	EF	63	ED		
STYLOSANTHES	1297	19	EGDFC	11	C	C	29	EFDC	62	BDAC		
STYLOSANTHES	1318	29	EBDFC	22	BAC	BAC	37	EDC	69	EDC		
STYLOSANTHES	1335	46	A	26	BAC	BAC	48	BAC	90	BAC		
STYLOSANTHES	2039	33	EBDAC	25	BAC	BAC	34	EFDC	76	EBDAC		
STYLOSANTHES	2053	33	BDAC	21	BAC	BAC	29	EFDC	83	BDAC		
STYLOSANTHES	2133	22	EGDFC	11	C	C	32	EFDC	73	EBDC		
STYLOSANTHES	2191	13	GF	11	C	C	13	F	55	EF		
STYLOSANTHES	2203	27	EDFC	33	BA	BA	69	A	94	BA		
STYLOSANTHES	2252	17	EGDF	19	BAC	BAC	27	EFDC	72	FBD		
STYLOSANTHES	2732	33	EBDAC	25	BAC	BAC	42	BDC	82	BDAC		
CENTROSEMA	5065	27	EDFC	23	BAC	BAC	27	EFDC	74	EBDC		
ZORNIA	7485	9	G	7	C	C	17	EF	39	GF		
ZORNIA	8025	16	EGF	14	BC	BC	30	EFDC	33	G		

EVALUACION : 1

MAXIMA PRECIPITACION REGRESIONES DE PRODUCCION MEDIA DE MATERIA SECA VS. EDAD LOCALIDAD:PLANALTIMA BRASIL

ECOTIPO	L I N E A L		NIVEL DE SIGNIFI.	R CUADRADO	C U A D R A T I C O		NIVEL DE SIGNIFI.
	CONSTA. LINEAL	CONSTA. LINEAL			LINEAL SIGNIFI.	CUADRAT. SIGNIFI.	
LEGUMINOSAS :							
ZORNIA							
LATIFOLI	0.65	26.4	0.001	0.74	-10.4	0.640	3.65
CAPITATA	0.69	5.5	0.001	0.73	10.5	0.040	-0.52
STYLOSANTHES	0.85	119.7	0.001	0.95	-31.5	0.430	15.81
VISSOSA	0.83	56.1	0.001	0.87	8.3	0.790	5.00
GUIANENS	0.66	8.8	0.001	0.66	9.4	0.290	-0.06
CAPITATA	0.80	64.2	0.001	0.99	-17.2	0.580	8.51
MACROCEP	0.81	45.5	0.001	0.93	-21.6	0.250	7.01
ANGUSTIF	0.89	44.9	0.001	0.94	4.5	0.740	4.23
GUIANENS	0.56	14.8	0.001	0.59	3.6	0.330	1.17
CAPITATA	0.54	42.5	0.010	0.56	11.6	0.540	3.24
STYLOSANTHES	0.88	65.5	0.001	0.95	-4.7	0.870	9.43
MACROCEP	0.80	10.2	0.001	0.75	-1.6	0.840	1.23
STYLOSANTHES	0.93	45.9	0.001	0.97	10.3	0.390	3.73
MACROCEP	0.92	66.9	0.001	0.96	16.9	0.390	5.22
GUIANENS	0.81	156.1	0.001	0.90	-58.6	0.420	21.46
CAPITATA	0.76	62.2	0.001	0.89	-48.3	0.260	13.64
MACROCEP	0.69	89.4	0.010	0.69	19.0	0.320	-0.35
BRASILIE	0.80	89.4	0.001	0.95	-56.5	0.090	15.25
BRASILIE	0.94	104.2	0.001	0.94	87.3	0.050	1.74

ECOTIPO	EVALUACION DE INSECTOS		LOCALIDAD:PLANALTIMA		OTRO2
	TRIPS AC. PULGUILLA COMEDOR	HEMIPTERO SALIVAZO	BARRENAD. PERFORAD.	OTRO1	
LEGUMINOSAS :					
ZORNIA					
LATIFOLI	0.00	0.00	0.00	0.00	0.00
CAPITATA	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	0.00	0.00	0.00	0.00	0.00
VISSOSA	0.00	0.00	0.00	0.00	0.00
GUIANENS	0.00	0.00	0.00	0.00	0.00
CAPITATA	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	0.00	0.00	0.00	0.00	0.00
MACROCEP	0.00	0.00	0.00	0.00	0.00
ANGUSTIF	0.00	0.00	0.00	0.00	0.00
GUIANENS	0.00	0.00	0.00	0.00	0.00
CAPITATA	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	0.00	0.00	0.00	0.00	0.00
MACROCEP	0.00	0.00	0.00	0.00	0.00
GUIANENS	0.00	0.00	0.00	0.00	0.00
CAPITATA	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	0.00	0.00	0.00	0.00	0.00
MACROCEP	0.00	0.00	0.00	0.00	0.00
GUIANENS	0.00	0.00	0.00	0.00	0.00
CAPITATA	0.00	0.00	0.00	0.00	0.00
MACROCEP	0.00	0.00	0.00	0.00	0.00
CENTRUSEMA	0.00	0.00	0.00	0.00	0.00
ZORNIA	0.00	0.00	0.00	0.00	0.00
BRASILIE	0.00	0.00	0.00	0.00	0.00
BRASILIE	0.00	0.00	0.00	0.00	0.00

EVALUACION : 1

BRASIL

LOCALIDAD:PLANALTIMA

EVALUACION DE ENFERMEDADES

PRECIPITACION

ECOTIPO	HOJA				TALLO				OTROS				
	NEGRA	MARRON	NAPAN, CREMA	MARRP.	NARAP.	NEGRA	MARRON	CHANC.	MARCN.	CLORO.	I.G.PG	I.G.PG	I.G.PG
LEGUMINOSAS :													
ZORNIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VISCOZA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ANGUSTIF	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STYLOSANTHES	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCAR	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRASILIE	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRASILIE	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EVALUACION : 2

BRASIL

LOCALIDAD:PLANALTIMA

PRODUCCION DE MATERIA SECA KG/HA

PRECIPITACION

ECOTIPO	3 SEMANAS			6 SEMANAS			9 SEMANAS			12 SEMANAS		
	MS,KG/HA	DUNCAN	D.E.=155	MS,KG/HA	DUNCAN	D.E.=183	MS,KG/HA	DUNCAN	D.E.=325	MS,KG/HA	DUNCAN	D.E.=456
LEGUMINOSAS :												
ZORNIA	276	A	150	276	EDC	150	216	B	223	B	223	B
LATIFOLI	1019	A	70	1019	ED	70	293	B	313	B	313	B
CAPITATA	1094	A	273	1094	BAC	273	456	B	763	B	763	B
STYLOSANTHES	1095	A	310	1095	BA	310	1523	A	2133	A	2133	A
GUIANENS	1097	A	73	1097	ED	73	290	B	456	B	456	B
CAPITATA	1261	A	183	1261	EDC	183	230	B	416	B	416	B
MACROCEP	1292	A	116	1292	EDC	116	480	B	596	B	596	B
ANGUSTIF	133	A	183	133	EDC	183	466	B	776	B	776	B
GUIANENS	1297	A	90	1297	ED	90	230	B	393	B	393	B
CAPITATA	1318	A	180	1318	EDC	180	546	B	866	B	866	B
GUIANENS	1335	A	243	1335	EBDAC	243	130	B	286	B	286	B
MACROCEP	2039	A	70	2039	ED	70	383	B	783	B	783	B
MACROCEP	2039	A	153	2039	ED	153	383	B	783	B	783	B
MACROCEP	2133	A	83	2133	ED	83	606	B	936	B	936	B
MACROCEP	2191	A	233	2191	EDC	233	583	B	800	B	800	B
GUIANENS	2203	A	146	2203	EDC	146	1246	A	2436	A	2436	A
GUIANENS	2203	A	410	2203	EDC	410	533	B	820	B	820	B
CAPITATA	2252	A	250	2252	BDAC	250	356	B	676	B	676	B
MACROCEP	2732	A	63	2732	E	63	100	B	246	B	246	B
MACROCAR	5065	A	233	5065	EBDC	233	1443	A	2196	A	2196	A
BRASILIE	7485	A	303	7485	BA	303	386	B	830	B	830	B
BRASILIE	8025	A	303	8025	BA	303	386	B	830	B	830	B

EVALUACION : 2

MAXIMA PRECIPITACION PORCENTAJE DE COBERTURA LOCALIDAD:PLANALTIMA BRASIL

RECOTIPO	3 SEMANAS			6 SEMANAS			9 SEMANAS			12 SEMANAS		
	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN
LEGUMINOSAS :												
ZORNIA	728	BA	24	BA	46	8DC	28	EDCF	50	EDCF	20	EDCF
STYLOSANTHES	1019	BA	22	BA	22	BDAC	63	FBDAC	50	FBDAC	63	FBDAC
STYLOSANTHES	1094	BA	17	BA	28	FDE	21	GF	21	GF	21	GF
STYLOSANTHES	1095	BA	32	A	72	BA	95	BA	95	BA	95	BA
STYLOSANTHES	1097	BA	21	BA	38	FDEC	59	EDGCF	59	EDGCF	59	EDGCF
STYLOSANTHES	1281	BA	21	BA	17	FE	28	EDCF	28	EDCF	28	EDCF
STYLOSANTHES	1297	BA	20	BA	36	FDEC	43	EDCF	43	EDCF	43	EDCF
STYLOSANTHES	1318	BA	18	BA	36	FDEC	60	FBDACF	60	FBDACF	60	FBDACF
STYLOSANTHES	1335	BA	21	BA	40	FDEC	49	EDGCF	49	EDGCF	49	EDGCF
STYLOSANTHES	2039	A	23	BA	56	BAC	76	BAC	76	BAC	76	BAC
STYLOSANTHES	2053	B	19	BA	16	F	18	G	18	G	18	G
STYLOSANTHES	2053	BA	19	BA	40	FDEC	61	EDACF	61	EDACF	61	EDACF
STYLOSANTHES	2133	BA	22	BA	25	FDE	51	EDGCF	51	EDGCF	51	EDGCF
STYLOSANTHES	2191	BA	46	BA	38	FDEC	42	EDGCF	42	EDGCF	42	EDGCF
STYLOSANTHES	2203	A	50	BA	75	A	99	A	99	A	99	A
STYLOSANTHES	2252	BA	23	BA	50	BDAC	56	FBDGCF	56	FBDGCF	56	FBDGCF
STYLOSANTHES	2732	BA	16	BA	44	DEC	35	EDGCF	35	EDGCF	35	EDGCF
CENPOSENA	5065	BA	13	B	47	BDC	35	EDGF	35	EDGF	35	EDGF
ZORNIA	7485	BA	11	B	36	FDEC	66	EDAC	66	EDAC	66	EDAC
ZORNIA	8025	BA	14	B	38	FDEC	25	EGF	25	EGF	25	EGF

MAXIMA PRECIPITACION REGRESIONES DE PRODUCCION MEDIA DE MATERIA SECA VS. EOAD LOCALIDAD:PLANALTIMA BRASIL

RECOTIPO	LINEAL			CUADRADO			CUADRADO LINEAL			CUADRADO LINEAL		
	CONSTA.	NIVEL DE SIGNIFI.	R	CONSTA.	NIVEL DE SIGNIFI.	R	CONSTA.	NIVEL DE SIGNIFI.	R	CONSTA.	NIVEL DE SIGNIFI.	R
LEGUMINOSAS :												
ZORNIA	728	0.62	23.6	0.55	0.001	0.71	59.4	0.020	0.71	59.4	0.020	0.110
STYLOSANTHES	1019	0.55	27.6	0.73	0.001	0.55	34.9	0.310	0.55	34.9	0.310	0.820
STYLOSANTHES	1094	0.73	57.9	0.73	0.001	0.73	42.8	0.370	0.73	42.8	0.370	0.740
STYLOSANTHES	1095	0.76	154.9	0.76	0.001	0.80	2.1	0.980	0.80	2.1	0.980	0.160
STYLOSANTHES	1097	0.68	33.7	0.68	0.001	0.69	17.7	0.360	0.69	17.7	0.360	0.590
STYLOSANTHES	1281	0.61	32.7	0.61	0.001	0.62	39.2	0.270	0.62	39.2	0.270	0.850
STYLOSANTHES	1297	0.68	47.0	0.68	0.001	0.69	25.3	0.550	0.69	25.3	0.550	0.600
STYLOSANTHES	1318	0.66	30.0	0.66	0.001	0.72	12.4	0.790	0.72	12.4	0.790	0.360
STYLOSANTHES	1335	0.70	55.6	0.70	0.001	0.66	31.1	0.290	0.66	31.1	0.290	0.970
STYLOSANTHES	2039	0.66	64.7	0.66	0.001	0.69	40.4	0.500	0.69	40.4	0.500	0.570
STYLOSANTHES	2053	0.71	23.1	0.71	0.001	0.72	31.4	0.130	0.72	31.4	0.130	0.660
STYLOSANTHES	2133	0.52	50.9	0.52	0.010	0.57	11.6	0.850	0.57	11.6	0.850	0.710
STYLOSANTHES	2191	0.56	67.6	0.56	0.001	0.57	21.8	0.780	0.57	21.8	0.780	0.560
STYLOSANTHES	2203	0.89	62.9	0.89	0.001	0.92	43.1	0.150	0.92	43.1	0.150	0.480
STYLOSANTHES	2252	0.77	156.8	0.77	0.001	0.86	63.1	0.490	0.86	63.1	0.490	0.030
STYLOSANTHES	2732	0.94	65.3	0.94	0.001	0.94	57.4	0.020	0.94	57.4	0.020	0.710
STYLOSANTHES	5065	0.42	49.5	0.42	0.020	0.59	29.6	0.600	0.59	29.6	0.600	1.98
STYLOSANTHES	7485	0.82	154.3	0.82	0.001	0.83	9.4	0.740	0.83	9.4	0.740	0.770
ZORNIA	8025	0.59	59.0	0.59	0.001	0.88	12.0	0.680	0.88	12.0	0.680	16.62
ZORNIA	8025	0.59	59.0	0.59	0.001	0.50	31.8	0.630	0.50	31.8	0.630	0.670

EVALUACION : 2

MAXIMA PRECIPI TACION	EVALUACION DE INSECTOS						LOCALIDAD:PLANALINA			BRASIL	
							HEMIPTERO SALIVAZO	BARENAD.	PERFORAD.	OTRO1	OTRO2
	LEGUMINOSAS :	TRIPS AC.	PULGUILLA	COMEDOR							
LATIFOLI	728	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAPITATA	1019	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VISCOA	1094	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GUIANENS	1095	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAPITATA	1097	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
MACROCEP	1281	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANGUSTIF	1292	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GUIANENS	1297	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAPITATA	1318	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GUIANENS	1335	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MACROCEP	2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MACROCEP	2053	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MACROCEP	2133	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MACROCEP	2191	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GUIANENS	2203	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GUIANENS	2252	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAPITATA	2252	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MACROCEP	2732	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MACROCEP	5065	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRASILIE	7485	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRASILIE	8025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

MAXIMA PRECIPITACION	EVALUACION DE ENFERMEDADES						LOCALIDAD:PLANALINA						BRASIL						
							NEGRA	MARRON	NARAN.	CREMA	MARRP.	NARAP.	NEGRA	MARRON	CHANC.	MARN.	CLORO.	I.PEG.	I.S.P.G
	LEGUMINOSAS :	NEGRA	MARRON	NARAN.	CREMA	MARRP.													
LATIFOLI	728	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	1019	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VISCOA	1094	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	1095	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	1097	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	1281	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ANGUSTIF	1292	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	1297	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	1318	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	1335	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	2039	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	2053	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	2133	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	2191	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUIANENS	2203	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	2252	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	2732	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACROCEP	5065	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRASILIE	7485	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRASILIE	8025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CONDICIONES CLIMATICAS DURANTE LOS PERIODOS DE EVALUACION
 LOCALIDAD:PLANALTIMA BRASIL
 PERIODO DE ESTABLECIMIENTO

BT02

SEMANA	TEMPERATURA		PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)		
1	25	17	73	7
2	27	19	113	4
3	25	18	174	6
4	25	18	111	6
5	24	18	124	6
6	27	17	7	2
7	27	18	6	2
8	24	16	97	7
9	27	18	22	2
10	25	18	50	6
11	22	16	19	5
12	25	17	52	5
13	25	16	34	4
14	24	15	20	0

0-4 SEMANAS : 471 23
 0-8 SEMANAS : 705 40
 0-12 SEMANAS : 907 58

CONDICIONES CLIMATICAS DURANTE LOS PERIODOS DE EVALUACION
 LOCALIDAD:PLANALTIMA BRASIL
 PERIODO DE ESTABLECIMIENTO

BT02

SEMANA	TEMPERATURA		PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)		
1	24	17	66	6
2	26	17	21	5
3	27	18	81	4
4	24	20	78	6
5	26	17	86	3
6	25	16	21	5
7	29	15	22	0
8	27	15	34	5
9	28	18	52	3
10	28	17	23	3
11	27	17	22	4
12	28	16	22	1
13	30	16	23	0

0-3 SEMANAS : 182 15
 0-6 SEMANAS : 424 29
 0-9 SEMANAS : 510 37
 0-12 SEMANAS : 651 45

CONDICIONES CLIMATICAS DURANTE LOS PERIODOS DE EVALUACION
 LOCALIDAD:PLANALTIMA BRASIL
 PERIODO DE ESTABLECIMIENTO

BT02

SEMANA	TEMPERATURA		PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)		
1	27	19	15	4
2	29	17	44	5
3	27	17	128	4
4	25	16	82	5
5	24	18	90	7
6	23	18	94	7
7	23	18	121	7
8	26	17	90	5
9	29	18	23	1
10	28	16	22	0
11	27	16	37	4
12	28	18	80	2
13	0	0	0	0

0-3 SEMANAS : 188 13
 0-6 SEMANAS : 454 32
 0-9 SEMANAS : 666 45
 0-12 SEMANAS : 783 51

