

ESTABLECIMIENTO Y PRODUCCION DE GRAMINEAS Y LEGUMINOSAS FORRAJERAS
EN SUPÍA - CALDAS, COLOMBIA

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CENICAFE

El ensayo se realizó en la Subestación Experimental del Centro Nacional de Investigaciones de Café (CENICAFE) en Supía, situada a 5°28' de latitud norte y a 75°39' de longitud oeste, a una elevación de 1320 m.s.n.m. La precipitación media anual es de 2253 mm y la temperatura de 20.6°C (Figura 1). La región corresponde al ecosistema Bosque tropical semi-siempre verde estacional. Las características físicas y químicas del suelo se presentan en el cuadro 1.

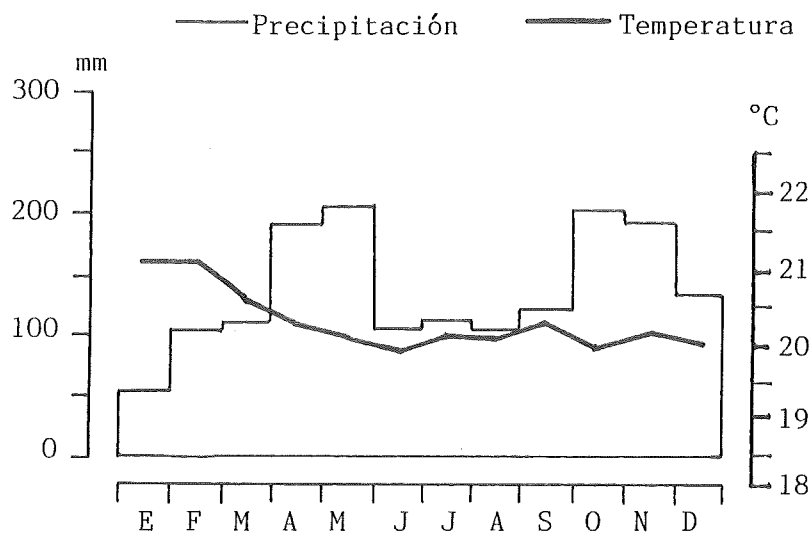


Figura 1.- Características climáticas de la región de Supía, Colombia.

Se evaluaron en los períodos que aparecen en el cuadro 2-16 ecotipos de leguminosas y 7 de gramíneas.

Se han obtenido del ensayo las siguientes conclusiones :

1. Por su rapidez de establecimiento, producción de forraje, tolerancia a plagas y enfermedades, y por su persistencia, sobresalieron los siguientes ecotipos : Brachiaria decumbens 605, Panicum maximum -182, Hyparrhenia rufa 601, Andropogon gayanus 621, Stylosanthes guianensis 136, Desmodium gyroides 3001, Stylosantes hamata 147, Stylosanthes capitata 1405 y Centrosema macrocarpum 5055.

Cuadro 1.- Características físicas y químicas del suelo en Supía, Colombia.

Profundidad (cm)	Arena %	Limo %	Arcilla %	Da g/cc	pH (1:1) ^b	Cia (meg/100 g)			CICEC	Sat. Al (%)	Micronutrientes PPM				
						Al	Ca	Mg			K	P	Zn	Cu	Mn
0 - 20	44	21	35	1.2	5.0	1.7	2.0	1.3	.23	5.23	32.0	0	3.9	2.3	67
0 - 20	44	21	35	1.2	5.0	1.7	2.0	1.3	.23	5.23	32.0	0	3.9	2.3	67

a. Cationes intercambiables

b. En H₂O

c. CICE = Capacidad de intercambio catiónico efectivo

Cuadro 2.- Evaluaciones realizadas durante el establecimiento y en las épocas de mínima y máxima precipitación.

Siembra en establecimiento		En producción	
		Máxima precipitación	
Desde 1 Mayo 1983	1 Mayo 1983	5 Sept. 1983	12 Julio 1984
	5 Sept. 1983	30 Nov. 1983	5 Oct. 1984
		16 Enero 1984	9 Oct. 1984
		17 Abril 1984	31 Dic. 1984
		17 Abril 1984	
		10 Julio 1984	

2. Brachiaria decumbens 606 se desarrolló lentamente durante el período de establecimiento, pero más adelante mostró la mejor producción y persistencia.
3. A medida que avanzaba el ensayo, el rendimiento del forraje disminuyó después de cada corte, disminución que era más notoria en las gramíneas.
4. Al aumentar la edad del pasto, hasta las 12 semanas, aumentó también la producción de forraje. Este aumento fué mayor entre las 6 y 9 semanas de edad.

PERIODO DE ESTABLECIMIENTO PROMEDIO Y COEFICIENTE DE VARIACION DE ALTURA LOCALIDAD: SUPIA COLOMBIA

ECOTIPO	SEMANTAS	8 SEMANAS		12 SEMANAS		16 SEMANAS	
		ALTURA (CM)	CV (%)	ALTURA (CM)	CV (%)	ALTURA (CM)	CV (%)
GRAMINEAS :							
HYPARHENIA	601	11	43	12	38	9	27
BRACHIARIA	606			15	24	53	24
ANDROPOGON	621	19	16	38	75	158	42
BRACHIARIA	679	2	59	3	21	6	25
DIGITARIA	-121	7	8	9	33	16	20
Panicum	-182	8	5	21	11	52	49
SETARIA	-183	7	27	39	23		
LEGUMINOSAS :							
STYLOSANTHES	136	10		21	59	41	25
HAMATA	147	9	19	22	65	41	29
DESMODIUM	349	6	10	4	47	7	43
DESMODIUM	350	2	92	4	34	7	42
CENTROSEMA	438	7	18	8	28	13	26
ZORNIA	728	4	74	4	38	8	37
CALOPOGONIUM	MUCONOID	6		7	49	17	32
STYLOSANTHES	HUMILIS	4	105	7	76	12	36
STYLOSANTHES	GUIANENS	12		11	23	25	24
STYLOSANTHES	CAPITATA	2	68	7	14	32	21
STYLOSANTHES	1405	5		7		7	141
DESMODIUM	GYRILDES	10		27	15	40	43
CENTROSEMA	MACROCAR	18		14	35	23	24
AESCHYNOMENE	HISTRIX	12		28	20	57	19
PUERRARIA	9900	5		5	50	17	27

ECOTIPO	SEMANTAS	8 SEMANAS		12 SEMANAS		16 SEMANAS	
		COBERTURA	DUNCAN	COBERTURA	DUNCAN	COBERTURA	DUNCAN
GRAMINEAS :							
HYPARHENIA	601	MEDIA=7	D.O.E.= 5	MEDIA=39	D.O.E.= 21	MEDIA=67	D.O.E.= 24
BRACHIARIA	606	5	B	5	B	5	B
ANDROPOGON	621	18	A	48	BA	43	BA
BRACHIARIA	679	1	B	35	BA	98	A
DIGITARIA	-121	5	B	14	BA	50	BA
Panicum	-182	7	BA	65	A	96	A
SETARIA	-183	6	B	41	BA	80	A
LEGUMINOSAS :							
STYLOSANTHES	136	MEDIA=4	D.O.E.= 3	MEDIA=34	D.O.E.= 26	MEDIA=63	D.O.E.= 23
HAMATA	147	6	BC	47	BAC	87	BA
DESMODIUM	349	4	BC	50	BAC	30	BC
DESMODIUM	350	1	C	12	BC	40	BAC
CENTROSEMA	438	2	C	6	C	20	C
ZORNIA	728	4	BC	46	BAC	91	A
CALOPOGONIUM	MUCONOID	1	C	7	BC	52	BAC
STYLOSANTHES	HUMILIS	3	C	45	BAC	90	BA
STYLOSANTHES	GUIANENS	4	BC	25	BAC	41	BAC
STYLOSANTHES	CAPITATA	3	C	25	BAC	23	BA
STYLOSANTHES	1019	1	C	8	BC	30	EC
STYLOSANTHES	1405	1	C			20	C
DESMODIUM	3001	1	C	5	C	20	C
CENTROSEMA	MACROCAR	16	A	80	A	100	A
AESCHYNOMENE	HISTRIX	12	BA	70	BA	87	BA
PUERRARIA	9900	2	C	21	BAC	83	BA

ESTABLECIMIENTO	EVALUACION DE INSECTOS				LOCALIDAD:SUPIA				COLOMBIA						
	ECOTIPO	TRIPS AC.	PULGILLA COMEDOR	HEMIPTERO SALIVAZO	BARRENAD.	PERFORAD.	OTRO1	OTRO2	TRIPS AC.	PULGILLA COMEDOR	HEMIPTERO SALIVAZO	BARRENAD.	PERFORAD.	OTRO1	OTRO2
GRAMINEAS :															
HYPARRHENIA	RUFA	601	0.33	0.67	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRACHIARIA	DECUMBEN	606	0.17	1.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDROPPOGON	GAYANUS	621	0.22	0.67	0.78	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRACHIARIA	HUMIDICO	679	0.00	0.75	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DIGITARIA	DECUMBEN	-121	0.22	2.00	0.78	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PANICUM	MAXIMUM	-182	0.00	1.50	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SETARIA	SP.	-183	0.22	0.67	0.78	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEGUMINOSAS :															
STYLOSANTHES	GUIANENS	136	0.63	1.00	1.33	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	HAMATA	147	0.57	0.57	1.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESODIUM	HETEROPH	349	0.50	0.67	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESODIUM	OVALIFOL	350	0.34	0.50	0.88	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CENTROSEMA	PUBESCEN	438	0.67	0.67	1.56	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZORNIA	LATIFOLI	728	0.67	1.17	1.33	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALOPOGONIUM	MUCRONID	-120	0.67	0.56	1.78	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	HUMILIS	-192	0.44	0.67	0.44	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	GUIANENS	-196	0.75	0.75	1.25	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	CAPITATA	1019	0.50	1.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STYLOSANTHES	CAPITATA	1315	0.00	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	CAPITATA	1405	0.50	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESODIUM	GYROIDES	3001	0.00	0.67	1.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CENTROSEMA	MACROCAR	5065	0.78	0.56	1.67	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AESCHYNOMENE	HISTRIX	9690	0.33	0.67	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUERARIA	PHASELO	9900	0.56	0.56	1.78	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ESTABLECIMIENTO	EVALUACION DE ENFERMEDADES										LOCALIDAD:SUPIA				COLOMBIA			
	ECOTIPO	NEGRA	MARRON	NAPAN.	CREMA	MARPP.	NARAP.	NEGRA	MARRON	CHANC.	MARCN.	CLORO.	I.P.E.G.	OTROS	OTROS	OTROS		
GRAMINEAS :																		
HYPARRHENIA	RUFA	601	0.0	1.3	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	
BRACHIARIA	DECUMBEN	606	0.0	0.6	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	
ANDROPPOGON	GAYANUS	621	0.0	0.6	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	
BRACHIARIA	HUMIDICO	679	0.0	0.5	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	
DIGITARIA	DECUMBEN	-121	0.0	1.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PANICUM	MAXIMUM	-182	0.0	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SETARIA	SP.	-183	0.0	0.2	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	
LEGUMINOSAS :																		
STYLOSANTHES	GUIANENS	136	0.0	0.3	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	HAMATA	147	0.0	0.2	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	
DESODIUM	HETEROPH	349	0.0	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	
DESODIUM	OVALIFOL	350	0.0	0.0	0.0	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	PUBESCEN	438	0.0	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	
ZORNIA	LATIFOLI	728	0.0	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	
CALOPOGONIUM	MUCRONID	-120	0.0	0.1	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	
STYLOSANTHES	HUMILIS	-192	0.0	0.3	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	
STYLOSANTHES	GUIANENS	-196	0.0	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	
STYLOSANTHES	CAPITATA	1019	0.0	0.2	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	
STYLOSANTHES	CAPITATA	1315	0.0	0.0	0.0	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	CAPITATA	1405	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DESODIUM	GYROIDES	3001	0.0	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	
CENTROSEMA	MACROCAR	5065	0.0	0.0	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	
AESCHYNOMENE	HISTRIX	9690	0.0	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	
PUERARIA	PHASELO	9900	0.0	0.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

EVALUACION : 1

COLOMBIA

LOCALIDAD: SUPIA

PRODUCCION DE MATERIA SECA KG/HA

MAXIMA PRECIPITACION

ECOTIPO	3 SEMANAS		6 SEMANAS		9 SEMANAS		12 SEMANAS	
	MS.KG/HA	DUNCAN	MS.KG/HA	DUNCAN	MS.KG/HA	DUNCAN	MS.KG/HA	DUNCAN
GRAMINEAS :								
HYPARRHENIA	601	A	2320	B	7795	A	9553	BA
BRACHIARIA	606	A	5540	A	8065	A	11508	A
ANDROPOGON	621	BA	2461	B	3954	B	9613	BA
BRACHIARIA	679	BA	2734	B	3368	B	5936	BA
DIGITARIA	-121	BA	2090	B	3282	B	4988	B
PANICUM	-182	B	1933	B	2552	B	8610	BA
SP.	-183	A	3959	BA	9926	A	10403	BA
MEDIA=3095			MEDIA=3118		MEDIA=5722		MEDIA=8679	
D.E.=536			D.E.=318		D.E.=1375		D.E.=2763	
LEGUMINOSAS :								
GUIANENS	136	A	5413	A	8163	A	7258	BA
HAYATA	147	CD	4604	D	9017	A	6641	BAC
HETEROPH	349	F	1130	CD	2933	A	1390	D
OVALIFOL	350	F	1130	F	2933	A	5125	BC
PUBESCENT	436	CB	2771	B	4298	A	4216	BDC
CENTROSEMA	728	ED	3058	B	6592	A	6325	BAC
ZORNIA	-120	CD	2743	B	8969	A	5900	BC
CALPOGONIUM	-192	EDF	4512	A	5975	A	5055	BC
STYLOSANTHES	1019	B	4712	A	10044	A	9420	A
STYLOSANTHES	1091	EF	2466	B	4030	A	4766	BC
CAPITATA	1403	CB	1989	CB	3667	A	7200	BA
MACROCAR	5065	CB	3029	B	4494	A	4775	BC
HISTRIX	9590	FD	3030	B	5214	A	6478	BAC
PHASEOLO	9900	ED	2291	B	4600	A	3611	DC
MEDIA=2889			MEDIA=3227		MEDIA=6226		MEDIA=5675	
D.E.=620			D.E.=456		D.E.=3005		D.E.=1341	

EVALUACION : 1

COLOMBIA

LOCALIDAD: SUPIA

PORCENTAJE DE COBERTURA

MAXIMA PRECIPITACION

ECOTIPO	3 SEMANAS		6 SEMANAS		9 SEMANAS		12 SEMANAS	
	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN
GRAMINEAS :								
HYPARRHENIA	601	C	65	A	98	A	86	BA
BRACHIARIA	606	BA	80	A	93	A	96	BA
ANDROPOGON	621	C	71	A	93	A	86	BA
BRACHIARIA	679	A	100	A	93	A	100	A
DIGITARIA	-121	A	88	A	93	A	83	B
PANICUM	-182	B	85	A	90	A	100	A
SP.	-183	B	70	A	96	A	88	BA
MEDIA=72			MEDIA=79		MEDIA=92		MEDIA=90	
D.E.=10			D.E.=26		D.E.=13		D.E.=17	
LEGUMINOSAS :								
GUIANENS	136	A	95	BA	97	A	100	A
HAYATA	147	BA	85	SA	95	A	77	BC
HETEROPH	349	B	100	A	95	A	100	A
OVALIFOL	350	B	75	B	80	BA	100	A
PUBESCENT	436	BA	100	A	96	A	100	A
CENTROSEMA	728	BA	100	A	85	BA	92	A
ZORNIA	-120	A	100	A	100	A	100	A
CALPOGONIUM	-192	B	100	A	80	BA	71	C
STYLOSANTHES	1019	A	100	A	100	A	90	BA
STYLOSANTHES	1091	B	60	BA	60	B	70	C
CAPITATA	1403	A	93	BA	80	BA	100	A
MACROCAR	5065	BA	95	BA	90	A	100	A
HISTRIX	9590	A	100	A	93	A	100	A
PHASEOLO	9900	A	100	A	93	A	100	A
MEDIA=77			MEDIA=94		MEDIA=90		MEDIA=92	
D.E.=21			D.E.=9		D.E.=11		D.E.=5	

EVALUACION : 1
 MAXIMA PRECIPITACION REGRESIONES DE PRODUCCION MEDIA DE MATERIA SECA VS. EDAD LOCALIDAD:SUPIA COLOMBIA

ECOTIPO	L I N E A L	R	CUADRADO LINEAL	CONSTA.	NIVEL DE SIGNIFI.	C U A D R A T I C O			NIVEL DE SIGNIFI.
						R	CUADRADO LINEAL	CONSTA.	
GRAMINEAS :									
HYPARRHENIA	601	0.93	766.0	943.1	0.001	0.95	261.7	0.430	47.28
BRACHIAIA	605	0.96	943.1	634.9	0.001	0.98	969.4	0.001	-2.53
ANDROPOGON	621	0.83	634.9	467.0	0.001	0.89	-172.8	0.700	0.870
BRACHIAIA	679	0.89	467.0	401.6	0.001	0.39	529.4	0.030	78.87
DIGITARIA	-121	0.94	401.6	530.0	0.001	0.94	439.1	0.020	-6.24
PANICUM	-182	0.87	530.0	889.6	0.020	0.94	-72.3	0.880	-3.72
SETARIA	-183	0.91	889.6	799.6	0.001	0.91	915.7	0.030	0.280
LEGUMINOSAS :									
STYLOSANTHES	136	0.87	799.6	728.9	0.001	0.96	1761.4	0.001	-99.32
HAMATA	147	0.90	728.9	122.7	0.001	0.94	1270.2	0.010	-54.13
HETEROPH	349	0.98	122.7	350.1	0.080	1.00	191.7	0.001	-6.39
DESMODIUM	350	0.83	350.1	433.7	0.001	0.89	9.0	0.960	34.50
CENTROSEMA	438	0.86	433.7	595.5	0.001	0.93	926.0	0.001	-4.22
ZORNIA	728	0.96	595.5	650.9	0.001	0.96	749.5	0.010	-15.40
CALOPOGONIUM	-120	0.66	650.9	905.0	0.001	0.63	999.4	0.120	34.75
HUMILIS	-192	0.93	905.0	412.7	0.001	0.98	1043.8	0.001	-4.72
STYLOSANTHES	196	0.94	905.0	503.2	0.001	0.95	1298.9	0.001	-39.38
STYLOSANTHES	1019	1.00	412.7	471.4	0.001	1.00	-4.7	0.030	0.160
STYLOSANTHES	1405	0.95	503.2	471.4	0.020	1.00	937.7	0.980	49.59
MACROCAR	5065	0.87	471.4	550.2	0.001	0.93	937.7	0.001	-46.63
AESCHYLOMENE	9690	0.99	550.2	390.4	0.001	0.99	574.4	0.001	-2.42
PUERARIA	9900	0.83	390.4		0.001	0.88	737.7	0.001	-34.74

EVALUACION : 1

EVALUACION DE INSECTOS LOCALIDAD:SUPIA COLOMBIA

ECOTIPO	EVALUACION DE INSECTOS	LOCALIDAD:SUPIA		
		TRIPS AC. FULGUILLA COMEDOR	HEMIPTERO SALIVAZO	BARENAD. PERFORAD. OTRO1
GRAMINEAS :				
HYPARRHENIA	601	0.00	0.00	0.00
BRACHIAIA	606	0.17	0.00	0.00
ANDROPOGON	621	0.08	0.00	0.00
BRACHIAIA	679	0.17	0.08	0.00
DIGITARIA	-121	0.25	0.17	0.00
PANICUM	-182	0.00	0.00	0.00
SETARIA	-183	0.08	0.03	0.00
LEGUMINOSAS :				
STYLOSANTHES	136	0.44	0.33	0.00
HAMATA	147	0.50	0.36	0.00
HETEROPH	349	0.00	0.00	0.00
DESMODIUM	350	0.00	0.00	0.00
CENTROSEMA	438	0.58	0.33	0.00
ZORNIA	728	0.75	0.25	0.00
CALOPOGONIUM	-120	0.67	0.25	0.00
HUMILIS	-192	0.18	0.09	0.00
STYLOSANTHES	196	0.25	0.17	0.00
STYLOSANTHES	1019	0.25	0.25	0.00
STYLOSANTHES	1405	0.33	0.00	0.00
CENTROSEMA	5065	0.75	0.42	0.00
AESCHYLOMENE	9690	0.67	0.38	0.00
PUERARIA	9900	0.67	0.33	0.00

EVALUACION : 1

COLOMBIA

LOCALIDAD:SUPIA

EVALUACION DE ENFERMEADES

MAXIMA PRECIPITACION

ECOTIPO	HOJA			TALLO			OTROS						
	NEGRA	MARRON	NARAN.	CREMA	MARRP.	NARAP.	NEGRA	MARRON	CHANC.	MARCN.	CLORO	I.PEG.	I.G.PG
GRAMINEAS :													
HYPARRHENIA	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRACHIARIA	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ANDROPOGON	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRACHIARIA	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIGITARIA	0.0	0.7	0.9	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PANICUM	0.0	1.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SETARIA	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEGUMINOSAS :													
STYLOSANTHES	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAIATA	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
METEROPH	0.0	0.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DESMODIUM	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUBESCENT	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LATIFOLI	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MUCRONOID	0.0	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HUMILIS	0.0	0.7	0.3	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	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MACRODAR	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HISTRIX	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHASELO	0.0	0.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EVALUACION : 2

COLOMBIA

LOCALIDAD:SUPIA

PRODUCCION DE MATERIA SECA KG/HA

MAXIMA PRECIPITACION

ECOTIPO	3 SEMANAS			6 SEMANAS			9 SEMANAS			12 SEMANAS		
	MS.KG/HA	DUNCAN	D.E.	MS.KG/HA	DUNCAN	D.E.	MS.KG/HA	DUNCAN	D.E.	MS.KG/HA	DUNCAN	D.E.
GRAMINEAS :												
HYPARRHENIA	1739	BC	0.527	2855	BC	0.742	4753	B	7779	BC	0.2552	
BRACHIARIA	601	BA	0.264	4264	A	11461	A	16120	A	8962	B	
ANDROPOGON	606	C	2791	3831	BA	5887	B	10256	B	3399	C	
BRACHIARIA	621	A	1783	1819	BC	5331	B	12205	BA	10875	B	
DIGITARIA	-121	BC	2241	2374	C	4150	BAC	5678	BA	5360	BA	
PANICUM	-182	C	2362	2829	BA	3025	BC	5955	BA	5311	BA	
SETARIA	-183	C	2685	3454	BA	4644	BA	4303	BA	6313	BA	
LEGUMINOSAS :												
GUIANENS	1361	BC	605	1696	BA	3250	BC	4371	B	560	B	
MAIATA	1471	BAC	2027	2868	BA	1133	C	4051	B	4051	B	
METEROPH	349	BAC	960	2027	BA	4077	BAC	4051	B	5435	BA	
DESMODIUM	350	BC	3461	3661	A	3168	BC	5435	BA	1302	B	
PUBESCENT	438	A	1696	1696	BA	3331	BC	1302	B	10975	A	
LATIFOLI	728	BAC	1969	2398	BA	6737	A	5332	BA	5332	BA	
MUCRONOID	-120	BAC	2014	2398	BA	5875	BAC	2576	B	3995	B	
HUMILIS	-192	C	1706	1706	BA	1697	BC	2576	B	3995	B	
GUIANENS	-196	BC	1627	2569	BA	4050	BAC	3995	B			
CAPITATA	1019	BC	1627	2569	BA	4050	BAC	3995	B			
MACRODAR	1405	BA	1627	2569	BA	4050	BAC	3995	B			
HISTRIX	9690	C	1627	2569	BA	4050	BAC	3995	B			
PHASELO	9200	BAC	1627	2569	BA	4050	BAC	3995	B			

MAXIMA PRECIPITACION

LOCALIDAD: SUPIA

COLOMBIA

ECOTIPO	5 SEMANAS		6 SEMANAS		9 SEMANAS		12 SEMANAS	
	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN
GRAMINEAS :								
HYPPARRHENIA	501	75	96	96	100	A	95	A
BRACHIARIA	608	BA	100	A	100	A	100	A
ANDROPOGON	621	BDC	93	BA	90	A	100	A
BRACHIARIA	679	A	100	A	100	A	100	A
DIGITARIA	-121	BAC	86	R	80	A	93	A
Panicum	-182	D	86	B	86	A	90	A
SETARIA	-183	BAC	93	BA	100	A	90	A
LEGUMINOSAS :								
GUIANENS	136	EBDC	MEDIA=73	D.E.=20	MEDIA=88	D.E.=17	MEDIA=86	D.E.=16
HAYATA	147	EBDC	60	BA	83	BA	93	BA
STYLOSANTHES	349	EBDC	58	S	60	BA	76	BC
DESMODIUM	350	A	100	A	100	A	100	A
DESODIUM	350	A	100	A	100	A	100	A
CENTROSEMA	436	BA	100	A	100	A	100	A
ZORNIA	728	A	100	A	100	A	100	A
CALOPOGONIUM	-120	BAC	85	BA	86	A	90	BA
MUCONOID	-192	EDC	45	EDC	80	BA	100	A
HUMILIS	-192	EDC	45	EDC	80	BA	100	A
CAPITATA	-193	EBDC	60	E	45	B	65	DC
GUIANENS	-196	E	23	BA	93	A	90	BA
STYLOSANTHES	1019	EBDC	70	BA	70	BA	65	DC
CAPITATA	1315	EBDC	95	BA	93	A	90	BA
STYLOSANTHES	1405	EBDC	90	BA	90	BA	65	DC
CAPITATA	1405	EBDC	70	BA	80	BA	50	DE
DESODIUM	3001	ED	91	BA	100	A	100	A
MACROCAR	5065	A	100	A	100	A	100	A
HISTRIX	9690	ED	43	ED	61	BA	85	BA
PUERARIA	9900	A	100	A	100	A	100	A

MAXIMA PRECIPITACION

LOCALIDAD: SUPIA

COLOMBIA

ECOTIPO	LINEAL		CUADRADO		R		C U A D R A T I C O	
	CONSTA.	LINEAL	CUADRADO	LINEAL	CUADRADO	LINEAL	CUADRADO	
GRAMINEAS :								
HYPPARRHENIA	587.0		0.93		0.99	354.7	0.001	
BRACHIARIA	1221.3		0.94		0.97	454.5	0.170	
ANDROPOGON	591.4		0.96		0.91	64.3	0.810	
BRACHIARIA	679		0.91		0.91	544.6	0.110	
DIGITARIA	-121		0.93		0.95	436.5	0.001	
Panicum	-182		0.82		0.89	-129.0	0.740	
SETARIA	-183		0.91		0.90	-138.5	0.250	
LEGUMINOSAS :								
GUIANENS	136		0.78		0.80	238.9	0.490	
HAYATA	147		0.51		0.51	319.9	0.550	
STYLOSANTHES	349		0.89		0.89	416.9	0.090	
DESODIUM	350		0.97		0.98	675.8	0.001	
CENTROSEMA	438		0.96		0.97	504.0	0.001	
ZORNIA	728		0.87		0.87	629.7	0.050	
CALOPOGONIUM	-120		0.96		0.96	479.3	0.001	
MUCONOID	-192		0.64		0.93	331.6	0.070	
HUMILIS	-192		0.59		0.91	659.5	0.001	
CAPITATA	-193		0.94		0.96	177.3	0.120	
GUIANENS	-196		0.94		0.96	159.9	0.130	
STYLOSANTHES	1019		0.80		0.91	489.9	0.130	
CAPITATA	1315		0.99		1.00	843.7	0.090	
STYLOSANTHES	1405		0.74		0.84	611.9	0.030	
DESODIUM	3001		0.80		0.85	-5.7	0.990	
MACROCAR	5065		0.94		0.95	515.4	0.001	
HISTRIX	9690		0.60		0.60	266.5	0.120	
PUERARIA	9900		0.95		0.97	609.8	0.001	

MAXIMA PRECIPITACION		EVALUACION DE INSECTOS					LOCALIDAD:SUPIA					COLOMBIA	
ECOTIPO		TRIPS	4C.	PULGUILLA	COMEDOR	HEMIPTERO	SALIVAZO	BARRENAD.	PERFORAD.	OTRO1	OTRO2		
GRAMINEAS :													
HYPARMENIA	601	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.17		
BRACHARIA	606	0.17	0.00	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00		
ANDROPOGON	621	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.17		
BRACHARIA	679	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.17	0.33		
DIGITARIA	-121	0.09	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.25	0.17		
PANICUM	-182	0.06	0.25	0.42	0.08	0.00	0.00	0.00	0.00	0.08	0.09		
SETARIA	-183	0.09	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.17	0.25		
LEGUMINOSAS :													
STYLOSANTHES	136	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
HAMATA	147	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00		
HETEROPH	349	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00		
DESODIUM	350	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
CENTROSEMA	438	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
ZORNIA	728	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
CALOPOGONIUM	-120	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
HUMILIS	-192	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
STYLOSANTHES	-193	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
STYLOSANTHES	-196	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
STYLOSANTHES	1019	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
CAPITATA	1315	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.67		
CAPITATA	1405	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
STYLOSANTHES	3001	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.17		
DESODIUM		0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
CENTROSEMA	5065	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AESCHYNOMENE	HISTRIX	9690	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
PUERARIA	PHASEOLO	9900	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50		

MAXIMA PRECIPITACION		EVALUACION DE ENFERMEDADES												
ECOTIPO		HOJA				TALLO				OTROS				
		NEGRA	MARRON	NARAN.	CREMA	MARRP.	NARAP.	NEGRA	MARRON	CHANC.	MARN.	CLORO.	I.PEG.	I.G.PG
GRAMINEAS :														
HYPARMENIA	601	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRACHARIA	605	0.0	0.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ANDROPOGON	621	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
BRACHARIA	679	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIGITARIA	-121	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PANICUM	-182	0.0	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SETARIA	-183	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEGUMINOSAS :														
STYLOSANTHES	136	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HAMATA	147	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
HETEROPH	349	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DESODIUM	350	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CENTROSEMA	438	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZORNIA	728	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALOPOGONIUM	-120	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HUMILIS	-192	0.0	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	-193	0.0	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	-196	0.0	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	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
CAPITATA	1315	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	1405	0.0	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	3001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DESODIUM		0.0	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	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AESCHYNOMENE	HISTRIX	9690	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUERARIA	PHASEOLO	9900	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ECOTIPO	3 SEMANAS		6 SEMANAS		9 SEMANAS		12 SEMANAS	
	MS, KG/HA	DUNCAN	MS, KG/HA	DUNCAN	MS, KG/HA	DUNCAN	MS, KG/HA	DUNCAN
GUANINENS :	MEDIA=1103	D.E.=506	MEDIA=1926	D.E.=622	MEDIA=3156	D.E.=1724	MEDIA=8555	D.E.=2421
HYPARMENIA	601	A	2402	A	5358	CB	10131	BA
BRACHIARIA	606	A	1920	A	10053	A	11173	A
ANDROPOGON	621	A	2251	A	3962	CB	6429	BAC
GRACHIARIA	679	A	2384	A	3964	CB	5572	BC
DIGITARIA	1211	A	1396	A	2088	C	4425	C
PARICUM	1621	A	1186	A	4771	CB	10581	A
SETARIA	1831	A	1943	A	5891	B	9551	BA
LEGUMINOSAS :	MEDIA=960	D.E.=422	MEDIA=1242	D.E.=403	MEDIA=2207	D.E.=1494	MEDIA=2887	D.E.=3269
STYLOSANTHES	1361	BDAC	1608	BA	2333	BA	8198	A
STYLOSANTHES	1471	D	855	EDFC	3442	BA	3973	A
DESMODIUM	3491	BA	1507	BDAC	2693	BA	2937	A
DESMODIUM	3501	BDAC	2245	A	3870	BA	3445	A
CENTROSEMA	4361	BDAC	1398	BDAC	2155	BA	2592	A
ZORRIA	7281	BAC	1449	BDAC	2712	BA	2121	A
CALOPOGONIUM	1201	BDAC	770	EDF	977	B	1160	A
STYLOSANTHES	1921	D	550	FF	495	B	980	A
STYLOSANTHES	1931	BDAC	1368	BDAC	1465	BA	1775	A
STYLOSANTHES	1961	DC	1107	EDDFC	1025	B	999	A
STYLOSANTHES	1019	BDC	639	EDF	653	B	1231	A
STYLOSANTHES	1315	BDAC	1400	BDAC	1051	B	1550	A
STYLOSANTHES	1405	BDAC	370	F	1025	B	1518	A
DESMODIUM	3001	BDC	1060	EDDFC	4451	A	4460	A
CENTROSEMA	5065	BDC	1705	BAC	2968	BA	3397	A
AESCHYNOMENE	9690	D	556	EF	1245	BA	1251	A
PUERRARIA	9900	SDC	1492	BDAC	2476	DA	2781	A

ECOTIPO	3 SEMANAS		6 SEMANAS		9 SEMANAS		12 SEMANAS	
	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN
GUANINENS :	MEDIA=67	D.E.=5	MEDIA=94	D.E.=8	MEDIA=92	D.E.=7	MEDIA=89	D.E.=10
HYPARMENIA	631	BC	90	A	100	A	100	A
BRACHIARIA	606	A	88	A	100	A	96	BA
ANDROPOGON	621	BC	100	A	75	B	80	BA
BRACHIARIA	679	A	100	A	100	A	96	BA
DIGITARIA	1211	BA	95	A	100	A	76	B
PARICUM	1621	C	93	A	86	BA	83	BA
SETARIA	1831	BC	90	A	83	B	90	BA
LEGUMINOSAS :	MEDIA=77	D.E.=20	MEDIA=77	D.E.=21	MEDIA=64	D.E.=16	MEDIA=64	D.E.=19
STYLOSANTHES	1361	BA	88	A	56	BA	60	EDAC
STYLOSANTHES	1471	BAC	73	BA	60	BA	60	EDAC
DESMODIUM	3491	A	100	A	86	A	88	BAC
DESMODIUM	3501	A	100	A	93	A	100	BAC
CENTROSEMA	4361	A	100	A	86	A	93	BA
ZORRIA	7281	A	90	A	60	BA	45	ECC
CALOPOGONIUM	1201	BA	40	BC	47	B	63	EDAC
STYLOSANTHES	1921	BA	60	BAC	45	B	25	ED
STYLOSANTHES	1961	BC	70	BAC	60	BA	36	ED
STYLOSANTHES	1019	BA	63	BAC	40	B	20	E
STYLOSANTHES	1019	BA	60	BAC	35	B	40	ED
STYLOSANTHES	1315	BA	70	BA	60	BA	60	EDAC
DESMODIUM	1405	C	20	C	40	B	50	EDCC
CENTROSEMA	5065	BA	100	BA	70	BA	66	BDAC
AESCHYNOMENE	9690	BA	56	BAC	63	BA	100	EDAC
PUERRARIA	9900	BA	100	A	93	A	100	A

MAXIMA PRECIPITACION REGRESIONES DE PRODUCCION MEDIA DE MATERIA SECA VS. EDAD LOCALIDAD:SUPIA COLOMBIA

ECOTIPO	R CUADRADO	L I N E A L		NIVEL DE SIGNIFI.	R CUADRADO	C U A D R A T I C O		NIVEL DE SIGNIFI.	NIVEL DE CUADRAT. SIGNIFI.
		CONSTA. LINEAL	LINEAL			CONSTA. LINEAL	LINEAL		
GRAMINEAS :									
HYPARHENIA	601	0.93	695.1	0.001	0.99	20.7	0.840	67.44	0.001
BRACHIARIA	606	0.99	685.1	0.001	0.92	219.7	0.540	66.53	0.070
ANDROPOGON	621	0.90	570.1	0.001	0.95	42.5	0.810	52.77	0.010
BRACHIARIA	679	0.93	450.8	0.001	0.93	410.6	0.030	4.02	0.500
DIGITARIA	-121	0.88	310.0	0.001	0.70	131.7	0.370	17.83	0.220
PANICUM	-192	0.75	665.6	0.001	0.85	-312.1	0.430	97.78	0.030
SETARIA	-183	0.94	673.8	0.001	0.99	-6.4	0.930	58.02	0.001
LEGUMINOSAS :									
GUIANENS	136	0.53	452.1	0.010	0.59	-138.2	0.790	61.71	0.260
HAMATA	147	0.51	311.4	0.010	0.52	124.7	0.760	19.64	0.640
HETEROPH	349	0.90	287.9	0.001	0.92	430.5	0.001	-16.28	0.130
DESODIUM	350	0.94	351.4	0.001	0.97	605.3	0.001	-25.49	0.010
CENTROSEMA	438	0.93	229.2	0.001	0.93	299.6	0.001	-7.04	0.390
ZORNIA	728	0.84	233.3	0.001	0.89	408.3	0.020	-23.49	0.140
CALOPOGONIUM	-120	0.75	115.5	0.001	0.52	260.9	0.010	-14.53	0.070
HUVILIS	-132	0.88	72.5	0.001	0.90	108.5	0.040	-3.56	0.410
CAPITATA	-193	0.78	150.3	0.001	0.92	403.9	0.001	-25.37	0.001
GUIANENS	-196	0.82	100.8	0.001	0.91	261.6	0.001	-15.17	0.010
CAPITATA	1019	0.78	99.2	0.001	0.73	144.7	0.150	-4.56	0.610
CAPITATA	1315	0.87	147.9	0.020	0.95	328.3	0.090	-18.04	0.220
CAPITATA	1405	0.91	119.2	0.010	0.91	115.0	0.400	0.42	0.570
GYRDIDES	3001	0.52	555.9	0.010	0.58	-176.1	0.790	73.20	0.280
MACROCAR	5065	0.95	296.1	0.001	0.95	305.4	0.010	-1.03	0.910
HISTRIX	9690	0.90	113.6	0.001	0.90	127.5	0.030	-1.39	0.780
PHASEOLO	9900	0.98	247.8	0.001	0.98	292.3	0.001	-4.45	0.360

ECOTIPO	R CUADRADO	L I N E A L		NIVEL DE SIGNIFI.	R CUADRADO	C U A D R A T I C O		NIVEL DE SIGNIFI.	NIVEL DE CUADRAT. SIGNIFI.
		CONSTA. LINEAL	LINEAL			CONSTA. LINEAL	LINEAL		
GRAMINEAS :									
HYPARHENIA	601	0.00	0.00	0.09	0.00	0.00	0.00	0.42	0.00
BRACHIARIA	606	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00
ANDROPOGON	621	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00
BRACHIARIA	679	0.00	0.08	0.17	0.00	0.00	0.00	0.00	0.00
DIGITARIA	-121	0.00	0.00	0.17	0.00	0.00	0.00	0.25	0.00
PANICUM	-182	0.00	0.08	0.58	0.00	0.00	0.00	0.08	0.00
SETARIA	-193	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEGUMINOSAS :									
GUIANENS	136	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
HAMATA	147	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HETEROPH	349	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESODIUM	350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CENTROSEMA	438	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00
ZORNIA	728	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALOPOGONIUM	-120	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00
HUVILIS	-132	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAPITATA	-193	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GUIANENS	-196	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
CAPITATA	1315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAPITATA	1405	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GYRDIDES	3001	0.00	0.00	0.08	0.00	0.00	0.00	0.08	0.00
MACROCAR	5065	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
HISTRIX	9690	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHASEOLO	9900	0.00	0.00	1.58	0.00	0.00	0.00	0.00	0.00

ECOTIPO	LOCALIDAD:SUPIA												
	NEGRA	MARRON	NARANJA	CREMA	MARFP.	NARAP.	NEGRA	MARRON	CHANC.	MARCN.	CLORO.	I.B.F.G.	I.G.P.G
GRAMINEAS :													
HYPERMENEIA :													
BRACHIARIA	601	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DECUMBEN	606	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GAYANUS	621	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HUMIDICO	679	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DECUMBEN	-121	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAXIMUM	-182	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SETARIA	-183	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEGUMINOSAS :													
GUIANENS	136	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAVATA	147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HETEROPH	349	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVALIFOL	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUBESCENT	438	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LATIFOLI	729	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MUCO'OID	-120	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HUMILIS	-192	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	-193	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	-196	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITATA	1315	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GYROIDES	3001	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	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
HISTRIX	9590	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHASELO	9900	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ECOTIPO	LOCALIDAD:SUPIA											
	3 SEMANAS	5 SEMANAS	9 SEMANAS	12 SEMANAS								
	MS,KG/HA	MS,KG/HA	MS,KG/HA	MS,KG/HA								
	DUNCAN	DUNCAN	DUNCAN	DUNCAN								
GRAMINEAS :												
HYPERMENEIA :												
BRACHIARIA	501	1071	1447	9293								
DECUMBEN	606	2599	7449	9999								
GAYANUS	621	1504	2328	8395								
HUMIDICO	679	2151	2680	4857								
DECUMBEN	-121	1329	2227	2929								
MAXIMUM	-182	758	3058	10609								
SETARIA	-183	1352	2647	7543								
LEGUMINOSAS :												
GUIANENS	136	1097	2449	7132								
MAVATA	147	702	2950	5793								
HETEROPH	349	1893	2070	2397								
OVALIFOL	350	1731	2768	3921								
PUBESCENT	438	1061	1729	2593								
LATIFOLI	729	1144	2404	3166								
MUCO'OID	-120	777	1119	1997								
HUMILIS	-152	1050	1235	696								
CAPITATA	-193	1064	1561	2221								
GUIANENS	-196	305	490	1408								
CAPITATA	1019	450	510	1400								
CAPITATA	1315	330	820	1581								
CAPITATA	1405	1533	1987	3235								
GYROIDES	3001	702	2523	6545								
MACROCAR	5065	1193	2231	3935								
HISTRIX	9590	715	532	2025								
PHASELO	9900	793	1988	2175								

ECOTIPO	3 SEMANAS			6 SEMANAS			9 SEMANAS			12 SEMANAS		
	COBERTU.	DUNCAN	DUNCAN	COBERTU.	DUNCAN	DUNCAN	COBERTU.	DUNCAN	DUNCAN	COBERTU.	DUNCAN	DUNCAN
GRAMINEAS :	MEDIA=65	D.E.=15	D.E.=14	MEDIA=81	D.E.=14	D.E.=11	MEDIA=89	D.E.=11	MEDIA=99	D.E.=1		
HYCARPHENIA	601	23	71	71	8A	76	BC	100	100	A		
BRACHIARIA	606	83	75	75	8A	100		100	100	A		
ANDROPPOV	621	46	78	78	8A	95	BA	100	100	A		
BRACHIARIA	679	100	100	100	A	100		100	100	A		
DIGITARIA	-121	93	93	93	8A	93	BAC	98	98	A		
PANICUM	-192	53	65	65	C	71	C	100	100	A		
SETARIA	-163	60	85	85	8A	85	BAC	100	100	A		
LEGUMINOSAS :	MEDIA=63	D.E.=30	D.E.=28	MEDIA=73	D.E.=28	MEDIA=83	D.E.=21	MEDIA=85	D.E.=14			
STYLOSANTHES	136	40	60	60	8A	71	A	76	76	BA		
STYLOSANTHES	147	45	63	63	8A	85	A	90	90	A		
DESMODIUM	349	93	100	100	A	100	A	91	91	A		
DESMODIUM	350	96	100	100	A	100	A	100	100	A		
CENTROSEMA	432	68	88	88	8A	100	A	96	96	A		
ZORNIA	728	70	75	75	8A	87	A	87	87	A		
CALPOGONIUM	MUCONOID	-120	83	83	A	83	A	87	87	A		
STYLOSANTHES	HUMILIS	-192	85	85	A	61	A	45	45	C		
STYLOSANTHES	CAPITATA	-193	31	68	8A	60	A	76	76	BA		
STYLOSANTHES	GUIANENS	-196	17	15	B	50	A	50	50	BA		
STYLOSANTHES	CAPITATA	1019	55	87	A	75	A	82	82	A		
STYLOSANTHES	CAPITATA	1315	47	40	8A	80	A	90	90	A		
STYLOSANTHES	CAPITATA	1405	55	90	A	90	A	83	83	A		
DESMODIUM	GYROIDES	3001	65	65	8A	73	A	100	100	A		
CENTROSEMA	MACROCAR	5065	90	80	A	80	A	85	85	A		
AESCHYROMENE	HISTRIX	9690	39	71	8A	66	A	85	85	A		
PUERARIA	PHASEOLO	9900	60	61	8A	100	A	100	100	A		

ECOTIPO	LINEAL			R			CUADRADO			R			CUADRADO			R			C U A D R A T I C O			
	CONSTA.	NIVEL DE SIGNIFI.	LINEAL	CUADRADO	NIVEL DE SIGNIFI.	LINEAL	CUADRADO	NIVEL DE SIGNIFI.	LINEAL	CUADRADO	NIVEL DE SIGNIFI.	LINEAL	CUADRADO	NIVEL DE SIGNIFI.	LINEAL	CUADRADO	NIVEL DE SIGNIFI.	LINEAL	CUADRADO	NIVEL DE SIGNIFI.		
GRAMINEAS :																						
HYCARPHENIA	487.8	0.001	487.8	0.69	0.001	487.8	0.69	0.001	487.8	0.001	487.8	0.69	0.001	487.8	0.69	0.001	487.8	0.69	0.001	487.8	0.001	
BRACHIARIA	762.8	0.001	762.8	0.94	0.001	762.8	0.94	0.001	762.8	0.001	762.8	0.94	0.001	762.8	0.94	0.001	762.8	0.94	0.001	762.8	0.020	
ANDROPPOV	439.9	0.001	439.9	0.70	0.001	439.9	0.70	0.001	439.9	0.001	439.9	0.70	0.001	439.9	0.70	0.001	439.9	0.70	0.001	439.9	0.030	
BRACHIARIA	377.4	0.001	377.4	0.91	0.001	377.4	0.91	0.001	377.4	0.001	377.4	0.91	0.001	377.4	0.91	0.001	377.4	0.91	0.001	377.4	0.840	
DIGITARIA	250.0	0.001	250.0	0.92	0.001	250.0	0.92	0.001	250.0	0.001	250.0	0.92	0.001	250.0	0.92	0.001	250.0	0.92	0.001	250.0	0.450	
PANICUM	514.1	0.001	514.1	0.69	0.001	514.1	0.69	0.001	514.1	0.001	514.1	0.69	0.001	514.1	0.69	0.001	514.1	0.69	0.001	514.1	0.030	
SETARIA	459.8	0.001	459.8	0.85	0.001	459.8	0.85	0.001	459.8	0.001	459.8	0.85	0.001	459.8	0.85	0.001	459.8	0.85	0.001	459.8	0.001	
LEGUMINOSAS :																						
STYLOSANTHES	429.2	0.010	429.2	0.50	0.010	429.2	0.50	0.010	429.2	0.010	429.2	0.50	0.010	429.2	0.50	0.010	429.2	0.50	0.010	429.2	0.210	
STYLOSANTHES	372.1	0.001	372.1	0.56	0.001	372.1	0.56	0.001	372.1	0.001	372.1	0.56	0.001	372.1	0.56	0.001	372.1	0.56	0.001	372.1	0.190	
DESMODIUM	241.3	0.001	241.3	0.79	0.001	241.3	0.79	0.001	241.3	0.001	241.3	0.79	0.001	241.3	0.79	0.001	241.3	0.79	0.001	241.3	0.040	
DESMODIUM	324.7	0.001	324.7	0.96	0.001	324.7	0.96	0.001	324.7	0.001	324.7	0.96	0.001	324.7	0.96	0.001	324.7	0.96	0.001	324.7	0.510	
CENTROSEMA	209.2	0.001	209.2	0.86	0.001	209.2	0.86	0.001	209.2	0.001	209.2	0.86	0.001	209.2	0.86	0.001	209.2	0.86	0.001	209.2	0.560	
ZORNIA	260.5	0.001	260.5	0.97	0.001	260.5	0.97	0.001	260.5	0.001	260.5	0.97	0.001	260.5	0.97	0.001	260.5	0.97	0.001	260.5	1.000	
CALPOGONIUM	152.5	0.001	152.5	0.92	0.001	152.5	0.92	0.001	152.5	0.001	152.5	0.92	0.001	152.5	0.92	0.001	152.5	0.92	0.001	152.5	0.840	
STYLOSANTHES	107.3	0.001	107.3	0.59	0.001	107.3	0.59	0.001	107.3	0.001	107.3	0.59	0.001	107.3	0.59	0.001	107.3	0.59	0.001	107.3	0.010	
STYLOSANTHES	186.5	0.001	186.5	0.93	0.001	186.5	0.93	0.001	186.5	0.001	186.5	0.93	0.001	186.5	0.93	0.001	186.5	0.93	0.001	186.5	0.410	
STYLOSANTHES	85.2	0.010	85.2	0.37	0.010	85.2	0.37	0.010	85.2	0.010	85.2	0.37	0.010	85.2	0.37	0.010	85.2	0.37	0.010	85.2	0.170	
STYLOSANTHES	99.9	0.001	99.9	0.78	0.001	99.9	0.78	0.001	99.9	0.001	99.9	0.78	0.001	99.9	0.78	0.001	99.9	0.78	0.001	99.9	0.900	
STYLOSANTHES	108.2	0.001	108.2	0.77	0.001	108.2	0.77	0.001	108.2	0.001	108.2	0.77	0.001	108.2	0.77	0.001	108.2	0.77	0.001	108.2	0.700	
STYLOSANTHES	255.7	0.001	255.7	0.83	0.001	255.7	0.83	0.001	255.7	0.001	255.7	0.83	0.001	255.7	0.83	0.001	255.7	0.83	0.001	255.7	0.970	
DESMODIUM	398.6	0.010	398.6	0.50	0.010	398.6	0.50	0.010	398.6	0.010	398.6	0.50	0.010	398.6	0.50	0.010	398.6	0.50	0.010	398.6	0.220	
CENTROSEMA	289.0	0.001	289.0	0.91	0.001	289.0	0.91	0.001	289.0	0.001	289.0	0.91	0.001	289.0	0.91	0.001	289.0	0.91	0.001	289.0	0.280	
AESCHYROMENE	141.1	0.001	141.1	0.78	0.001	141.1	0.78	0.001	141.1	0.001	141.1	0.78	0.001	141.1	0.78	0.001	141.1	0.78	0.001	141.1	0.550	
PUERARIA	189.0	0.001	189.0	0.93	0.001	189.0	0.93	0.001	189.0	0.001	189.0	0.93	0.001	189.0	0.93	0.001	189.0	0.93	0.001	189.0	0.930	

EVALUACION : 4

MAXIMA PRECIPITACION		EVALUACION DE INSECTOS							LOCALIDAD: SUPIA			COLOMBIA	
ECOTIPO		TRIPS AC.	PULGUILLA	COMEDOR	HEMIPTERO	SALIVAZO	BARRENAD.	PERFORAD.	OTRO1	OTRO2			
GRAMINEAS :													
HYPARHENIA	601	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	
BRACHARIA	606	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ANDROPOGON	621	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	
BRACHARIA	679	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	
DIGITARIA	-121	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	
PANICUM	-182	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SETARIA	-183	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	
LEGUMINOSAS :													
STYLOSANTHES	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
HYPARHENIA	147	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
HECTROPH	349	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DESMODIUM	350	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CENTROFEMA	438	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ZORNIA	728	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CALPOGONIUM	-120	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
STYLOSANTHES	-192	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CAPITATA	-193	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GUANENS	-196	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	
STYLOSANTHES	1315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CAPITATA	1405	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DESMODIUM	3001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CENTROFEMA	5055	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AESCHYNOME	9690	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PUERRARIA	9900	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

EVALUACION : 4

MAXIMA PRECIPITACION		EVALUACION DE ENFERMEDADES										LOCALIDAD: SUPIA			COLOMBIA	
ECOTIPO		NEGRA	MARRON	NARAN.	CREMA	MARRP.	NARAP.	NEGRA	MARRON	CHANC.	MARCN.	CLORO.	I.PEG.	I.G.PG		
GRAMINEAS :																
HYPARHENIA	601	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRACHARIA	606	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
ANDROPOGON	621	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRACHARIA	679	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIGITARIA	-121	0.0	0.5	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
PANICUM	-182	0.0	0.1	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
SETARIA	-183	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEGUMINOSAS :																
STYLOSANTHES	136	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HAYATA	147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HECTROPH	349	0.0	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
DESMODIUM	350	0.0	0.0	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
CENTROFEMA	438	0.0	0.0	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
ZORNIA	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	0.0	0.0
CALPOGONIUM	-120	0.0	0.0	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
STYLOSANTHES	-192	0.0	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
CAPITATA	-193	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GUANENS	-196	0.0	0.0	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
CAPITATA	1019	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
STYLOSANTHES	1315	0.0	0.0	0.0	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	1405	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DESMODIUM	3001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CENTROFEMA	5055	0.0	0.0	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
AESCHYNOME	9690	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUERRARIA	9900	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ECOTIPO	3 SEMANAS		6 SEMANAS		9 SEMANAS		12 SEMANAS	
	MS, KG/HA	DUNCAN	MS, KG/HA	DUNCAN	MS, KG/HA	DUNCAN	MS, KG/HA	DUNCAN
GRAMINEAS :								
HYPERBENIA	601	B	969	A	1410	B	4533	BA
BRACHIARIA	502	B	1192	A	3339	A	6113	A
ANDROPOGON	621	B	611	A	1505	B	5429	A
BRACHIARIA	679	A	1337	A	1646	B	3228	BA
DIGITARIA	121	B	668	A	1065	B	1450	B
PANICUM	152	B	1082	A	1607	B	5478	BA
SETARIA	183	B	808	A	1693	B	3725	BA
LEGUMINOSAS :								
STYLOSANTHES	136	SDC	582	BA	1082	BAC	3306	A
STYLOSANTHES	147	BA	770	BA	770	BDAC	2648	A
DESODIUM	349	BA	712	BA	845	BDAC	1135	A
DESODIUM	350	A	1035	A	1723	A	1965	A
CENTROSEMA	438	BAC	440	BA	635	BDC	1191	A
ZORNIA	726	A	460	BA	330	BDC	355	A
CALOPOGONIUM	120	BDC	515	BA	526	BDC	400	A
STYLOSANTHES	192	BDC	346	BA	170	DC	260	A
STYLOSANTHES	193	BDC	347	BA	320	BDC	396	A
STYLOSANTHES	196	DC	120	B	50	D	100	A
STYLOSANTHES	1019	DC	120	B	115	DC	315	A
STYLOSANTHES	1315	D	706	BA	123	DC	250	A
STYLOSANTHES	1405	BAC	436	BA	733	BDC	1380	A
DESODIUM	3001	BDC	408	BA	865	BDAC	3267	A
CENTROSEMA	5065	BAC	598	A	862	BDAC	2506	A
AESCHYNMENE	9590	DC	334	BA	323	BDC	376	A
PUERARIA	9900	BA	1018	A	1265	BA	1518	A

ECOTIPO	3 SEMANAS		6 SEMANAS		9 SEMANAS		12 SEMANAS	
	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN	COBERTU.	DUNCAN
GRAMINEAS :								
HYPERBENIA	601	B	70	BDC	83	BAC	100	A
BRACHIARIA	606	BA	75	BDC	98	BA	100	A
ANDROPOGON	621	S	60	D	100	C	93	BA
BRACHIARIA	679	A	100	A	100	A	100	A
DIGITARIA	121	BA	93	BA	95	BA	90	BA
PANICUM	152	B	66	DC	86	BC	86	B
SETARIA	183	BA	86	BAC	100	A	95	BA
LEGUMINOSAS :								
STYLOSANTHES	136	FDC	57	BAC	51	BAC	56	BAC
STYLOSANTHES	147	BDAC	75	BAC	78	BAC	90	BAC
DESODIUM	349	A	100	A	100	A	91	BA
DESODIUM	350	BA	96	BA	100	A	100	A
CENTROSEMA	438	BAC	65	BAC	90	BA	95	BA
ZORNIA	728	BDAC	40	BDAC	35	BC	45	BAC
CALOPOGONIUM	120	BDAC	57	BDAC	35	BAC	46	BAC
STYLOSANTHES	192	ED	35	BDC	35	BC	36	BC
STYLOSANTHES	193	ED	30	DC	71	BAC	36	BC
STYLOSANTHES	196	ED	10	D	25	C	30	C
STYLOSANTHES	1019	BDAC	42	BDAC	55	BAC	70	BAC
STYLOSANTHES	1315	E	67	BDAC	60	BAC	80	BAC
STYLOSANTHES	1405	BDAC	53	BDAC	58	BAC	73	BAC
DESODIUM	3001	BDAC	76	BDAC	90	BA	100	A
CENTROSEMA	5065	BDAC	70	BDAC	55	BAC	53	BAC
AESCHYNMENE	9590	BDAC	40	BDAC	55	BAC	53	BAC
PUERARIA	9900	BDAC	61	BDAC	100	A	100	A

EVALUACION : 5

EVALUACION DE ENFERMEDADES LOCALIDAD: SUPIA COLOMBIA

MAXIMA PRECIPITACION

ECOTIPO	MAXIMA PRECIPITACION	EVALUACION DE ENFERMEDADES										LOCALIDAD: SUPIA				COLOMBIA			
		GRAMINEAS :	NEGRA	MARRON	NARAN.	CREMA	MARRP.	NARAP.	NEGRA	TALLO	MARRON	CHANG.	MARCN.	CLORO.	I.PEG.	I.G.PG	OTROS		
HYPARRHENIA	PUFA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
BRACHARIA	DECUMBEN	0.0	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		
ANDROPOGON	GAYANUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
BRACHARIA	HUMIDICO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
DIGITARIA	DECUMBEN	0.0	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		
PANICUM	MAXIMUM	0.0	0.0	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		
SITAPIA	SP.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
LEGUMINOSAS :																			
STYLOSANTHES	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	0.0	0.0	0.0		
STYLOSANTHES	HAKATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
DESMODIUM	METOPH	0.0	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		
DESMODIUM	OVALIFOL	0.0	0.0	0.0	0.0	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	PUSSEGEN	0.0	0.0	0.0	0.0	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	LATIFOLI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
CALOPOGONIUM	MUCUNOID	0.0	0.0	0.0	0.0	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	HUMILIS	0.0	0.0	0.0	0.0	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	CAPITATA	0.0	0.0	0.0	0.0	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	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	0.0	0.0	0.0		
STYLOSANTHES	CAPITATA	0.0	0.0	0.0	0.0	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	CAPITATA	0.0	0.0	0.0	0.0	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	CAPITATA	0.0	0.0	0.0	0.0	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	CAPITATA	0.0	0.0	0.0	0.0	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	GYRJDIDES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
DESMODIUM	MACROCAR	0.0	0.0	0.0	0.0	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	HISTRIX	0.0	0.0	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		
ASCYTHOMENE	9690	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PUERRARIA	PHASEOLO	0.0	0.0	0.0	0.0	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: SUPIA COLUMBIA
 PERIODO DE ESTABLECIMIENTO BE28

SEMANA	TEMPERATURA		PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)		
1	27	18	23	17
2	29	19	23	9
3	26	18	22	75
4	27	18	23	50
5	27	18	23	70
6	26	17	22	47
7	29	17	22	24
8	28	17	22	1
9	28	17	22	44
10	27	17	22	19
11	28	17	23	15
12	28	17	22	1
13	26	17	21	68
14	29	17	23	1
15	30	17	23	0
16	29	17	23	8
17	29	17	23	46
18	29	17	23	22
19	29	17	23	2
20	29	17	23	2

0-8 SEMANAS : 292 30
 0-12 SEMANAS : 371 39
 0-16 SEMANAS : 451 47

CONDICIONES CLIMATICAS DURANTE LOS PERIODOS DE EVALUACION
 LOCALIDAD: SUPIA COLUMBIA
 PRECIPITACION MAXIMA EVALUACION: 1 BE28

SEMANA	TEMPERATURA		PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)		
1	27	17	22	34
2	28	17	22	18
3	28	16	22	60
4	29	18	23	6
5	28	17	22	11
6	26	17	21	41
7	26	16	21	25
8	28	17	21	94
9	27	17	22	49
10	27	17	22	29
11	27	16	22	44
12	28	17	22	9
13	25	16	21	6

0-3 SEMANAS : 112 12
 0-6 SEMANAS : 170 21
 0-9 SEMANAS : 335 31
 0-12 SEMANAS : 420 41

CONDICIONES CLIMATICAS DURANTE LOS PERIODOS DE EVALUACION
 LOCALIDAD: SUPIA COLUMBIA
 PRECIPITACION MAXIMA EVALUACION 2 BE28

SEMANA	TEMPERATURA		PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)		
1	27	16	21	62
2	27	16	21	31
3	27	16	22	32
4	27	17	22	26
5	26	16	21	34
6	26	17	22	10
7	27	17	22	44
8	28	17	22	3
9	28	17	22	14
10	28	16	22	24
11	26	17	22	98
12	27	17	22	25
13	27	17	22	5

0-3 SEMANAS : 125 10
 0-6 SEMANAS : 195 21
 0-9 SEMANAS : 256 30
 0-12 SEMANAS : 404 43

CONDICIONES CLIMATICAS DURANTE LOS PERIODOS DE EVALUACION
 LOCALIDAD: SUPIA COLUMBIA
 PRECIPITACION MAXIMA EVALUACION 3 BE2

SEMANA	TEMPERATURA		PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)		
1	28	17	22	12
2	25	17	21	27
3	27	17	22	68
4	26	16	21	18
5	25	17	21	55
6	25	17	21	60
7	26	17	21	29
8	26	17	21	18
9	26	17	22	63
10	26	16	21	27
11	25	16	21	63
12	25	16	21	59
13	25	16	21	0

0-3 SEMANAS : 107 13
 0-6 SEMANAS : 240 27
 0-9 SEMANAS : 350 40
 0-12 SEMANAS : 499 53

CONDICIONES CLIMATICAS DURANTE LOS PERIODOS DE EVALUACION
 LOCALIDAD: SUPIA COLUMBIA
 PRECIPITACION MAXIMA EVALUACION 4

BE28

SEMANA	TEMPERATURA			PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)	MEDIA (C)		
1	26	15	20	24	3
2	26	16	21	8	2
3	26	16	21	55	3
4	27	16	21	52	3
5	27	17	22	44	5
6	26	16	21	42	3
7	27	17	22	0	0
8	27	17	22	36	2
9	25	16	21	29	3
10	25	16	20	119	5
11	25	15	20	47	4
12	26	16	21	18	3
13	26	16	21	29	2

0-3 SEMANAS :	87	8
0-6 SEMANAS :	225	19
0-9 SEMANAS :	290	24
0-12 SEMANAS :	474	36

CONDICIONES CLIMATICAS DURANTE LOS PERIODOS DE EVALUACION
 LOCALIDAD: SUPIA COLUMBIA
 PRECIPITACION MAXIMA EVALUACION 5

BE28

SEMANA	TEMPERATURA			PRECIPITACION (MM)	DIAS DE LLUVIA
	MAXIMA (C)	MINIMA (C)	MEDIA (C)		
1	26	16	21	77	3
2	26	16	21	33	6
3	24	17	20	119	7
4	25	16	21	72	5
5	23	16	20	27	5
6	26	17	22	49	3
7	25	17	21	54	6
8	26	17	21	67	3
9	27	17	22	13	3
10	27	17	22	31	6
11	26	17	21	52	4
12	27	17	22	0	0

0-3 SEMANAS :	229	16
0-6 SEMANAS :	377	29
0-9 SEMANAS :	511	41
0-12 SEMANAS :	594	51