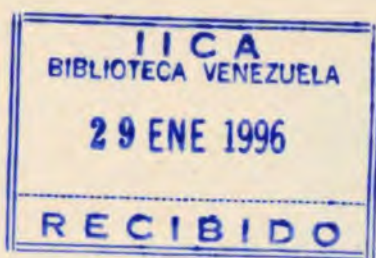


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HILLSIDE AGRICULTURE

SUB-PROJECT

(HASP)

On-Farm fertilizer/Pruning Trial
of Traditionally Grown Cacao,
Theobroma cacao L.
in St. Catherine

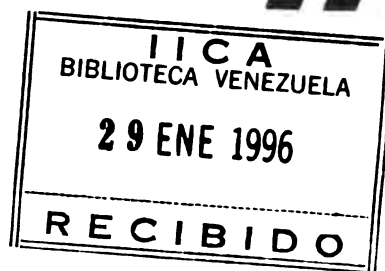
C. Reid, E. Stone, E. Pinnock, Z. Annakie
Jamaica, W.I.

December 1994





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**On-Farm fertilizer/Pruning Trial
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Prior to the trials all sites were managed as traditional cacao-intercropping systems. Management practices included weeding and pruning once a year between January and March. After March the sites were generally not weeded to allow the young renta yam (*Dioscorea alata* L. var. *renta*) to grow into the canopy. The sites were generally heavily intercropped traditional crops including banana (*Musa* (AAA and AAB Groups), cocoyam (*Colocasia esculenta* (L.) Schott), pear (*Persea americana* Mill.), coconut (*Cocos nucifera* L.), apple (*Eugenia malaccensis* L.), pimento (*Pimenta jamaicensis* (Britton & Harris) Proctor), breadfruit (*Artocarpus altilis* (S. Parkinson) Fosberg), cedar (*Cedrela odorata* L.), sugarcane (*Saccharum officinarum* L.). Other site characteristics recorded included soil type, pH, altitude, % slope, and aspect (Table 1).

Table 1. Selected sites characteristics of the complete package trial compared to the farmers traditional method of producing cocoa.

SITE	SOIL TYPE (Jamaican Series)	pH (H ₂ O)	Elev. (m)	SLOPE (%)	ASPECT
1. Jubilee	Diamond clay loam	6-7	457	50-60	110 ⁰ SE- 190 ⁰ S
2. Top Mountain	Bonnygate clay loam	6	450	15-35	140 SE- 220 ⁰ NW
3. Hampshire	Harewood silty clay loam	6	230	25	300-340 ⁰ NW

SUMMARY AND DISCUSSION

The winter season for harvesting cacao arrived late in 1993. Harvest projections from field personnel indicate that the cocoa harvest would be low because of a prolonged wet period during and after summer flowering. This wet period was blamed for low levels of pollination and increased levels of cherrelle wilt and black pod, all of which resulted in decreased yields in the trial region. Further decrease in yields within the trial plots were to be attributed to the effect of pruning. In general, lower yields during the following season after severe pruning can be expected (Wood and Lass, 1987). However, cacao generally responds with increased yields the second season after drastic pruning.

Data for the winter harvest was being compiled at the time of this report but was not available in sufficient quantity for analyses. The researchers will continue to collect and analyze the data as it is gathered.

The researchers urge that data continue to be collected and analyzed for another two seasons in order to get a better understanding of the response of cacao one year after pruning.

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3	2	4	63	6.3	2	2	13
3	2	4	64	6.3	3	8	5
3	2	4	65	5.5	3	3	16
3	2	4	66	6.3	2	2	5
3	2	1	67	8.2	5	5	5
3	2	1	68	8.8	4	7	3
3	2	1	69	12.5	3	6	1
3	2	1	70	5.8	2	6	1
3	2	1	71	17.9	4	5	13
3	2	1	72	9.2	4	5	5

NOTES

NOTES



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