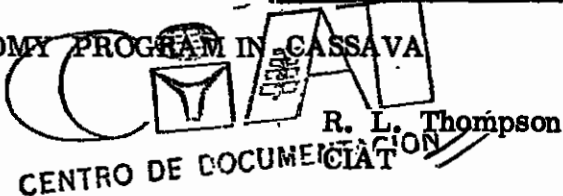




MICROFILMADO

AGRONOMY PROGRAM IN CASSAVA



Objective: The general objectives of the Agronomy Program in Cassava are to

- (1) Increase returns to the producer through increased production per unit cost.
- (2) Increase and stabilize the total amount of cassava available for market or home use.
- (3) Reduce prices to the consumer.

These should be achievable through development, testing and encouraging the adoption of production systems utilizing tested agronomic practices such as weed control, fertilization, cropping procedures and other practices which will tend to maximize returns from the efficient use of capital and labor inputs.

Project.

I Development of standards for efficient experimental procedures.

Sub-project:

- A. Evaluation of sample size needed to secure valid experimental data.
- B. Replacement of missing plants in experimental plots.

Many cultural practices influence germination and emergence of cassava plantings but often other factors enter into the emergence of plants which tend to confound the results obtained. In order to avoid this type of confounding it is desirable to have a perfect stand in experimental plots.

C. Suggested guide for cassava field trials.

II Outstation Research, National and International cooperative work.

Sub-project:

- A. Standardized varietal testing procedure.

It would be desirable to identify several 'reference' varieties

each adapted to an ecological zone. This would permit comparative testing programs enabling widely separated stations to evaluate their lines with the reference lines.

To implement this would require

- (1) Some standarization of testing techniques.
- (2) Delineation of ecological zones
- (3) Evaluation, selection and distribution of the reference varieties.

B. Sub-project: Evaluation of Nutrient requirements and correlation of soil and plant tissue tests.

Accurate correlation data between soil tests, plant tissue tests and plant responses are essential if cassava yields are to be increased systematically through fertilization. These correlations will permit the establishment of base lines for

1. Making fertilizer recommendations from soil tests.
2. Diagnosis and correction of deficiency problems in growing plants.

Plant samples for tissue testing and soil samples taken from fertility or other experimental trials established on a widespread geographical basis could serve to start building a background of information concerning nutrient status of cassava plants. This will provide a simplified system of predicting fertilizer responses with a minimum of fertilizer experimental work.

Standardized procedures must be utilized for

1. Fertilizer correlation plots.
2. Plant and soil sampling
3. Plant and soil analysis

4. Evaluation of climatic or other factors seriously affecting yields other than fertility.

III Cassava Cropping Systems

Sub-projects:

- A. Evaluation of effects of crop competition on cassava.

Cassava is widely grown in multiple cropping schemes. With variables of different crops, planting times and cultural practices the number of possible cropping systems prohibits testing all combinations. Evaluation of the competitive effect on cassava of crops with differing nutrient requirements, canopy arrangement, and time of maturity will result in establishing principles that can serve as a basis in planing multiple cropping systems.

- B. Variety, plant population and time of harvest study in cassava.

Because of the variability of plant characteristics in cassava it is doubtful that uniform management practices will give equal results for all cassava lines. The evaluation of populations and time of harvest for a few varieties of cassava with distinctly different growth habit will establish guide lines for cultural practices for other varieties with similar agronomic characteristics.