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NATIONAL LEGUME AND CASSAVA PROGRAMME

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15 ENE 1980

THREE ROW CASSAVA  
PLANTING MACHINE

INTER-AMERICAN INSTITUTE OF AGRICULTURAL

SCIENCES - OAS

SIMON BOLIVAR FUND

GEORGETOWN, GUYANA

JUNE, 1978

PROGRAMME

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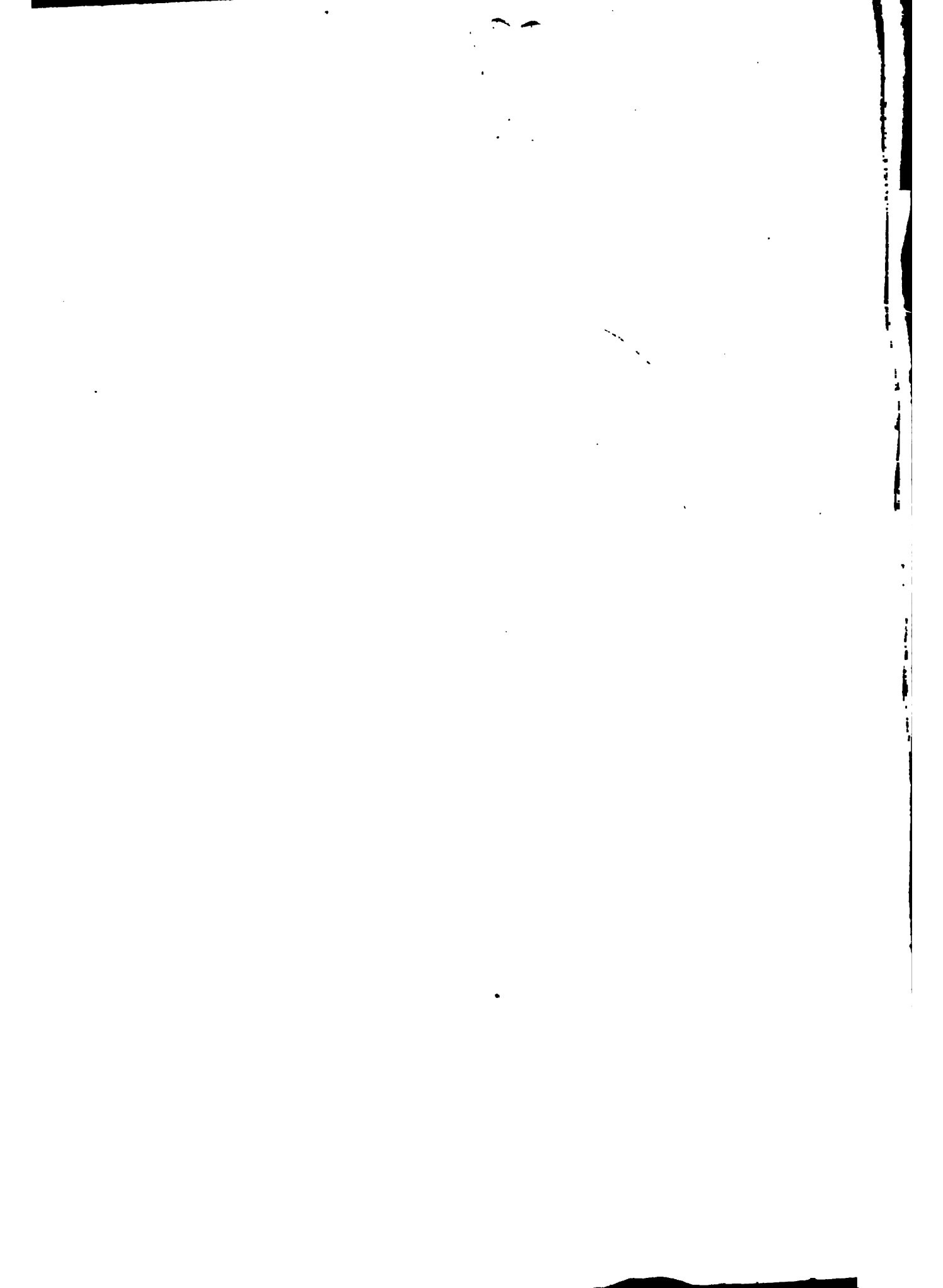
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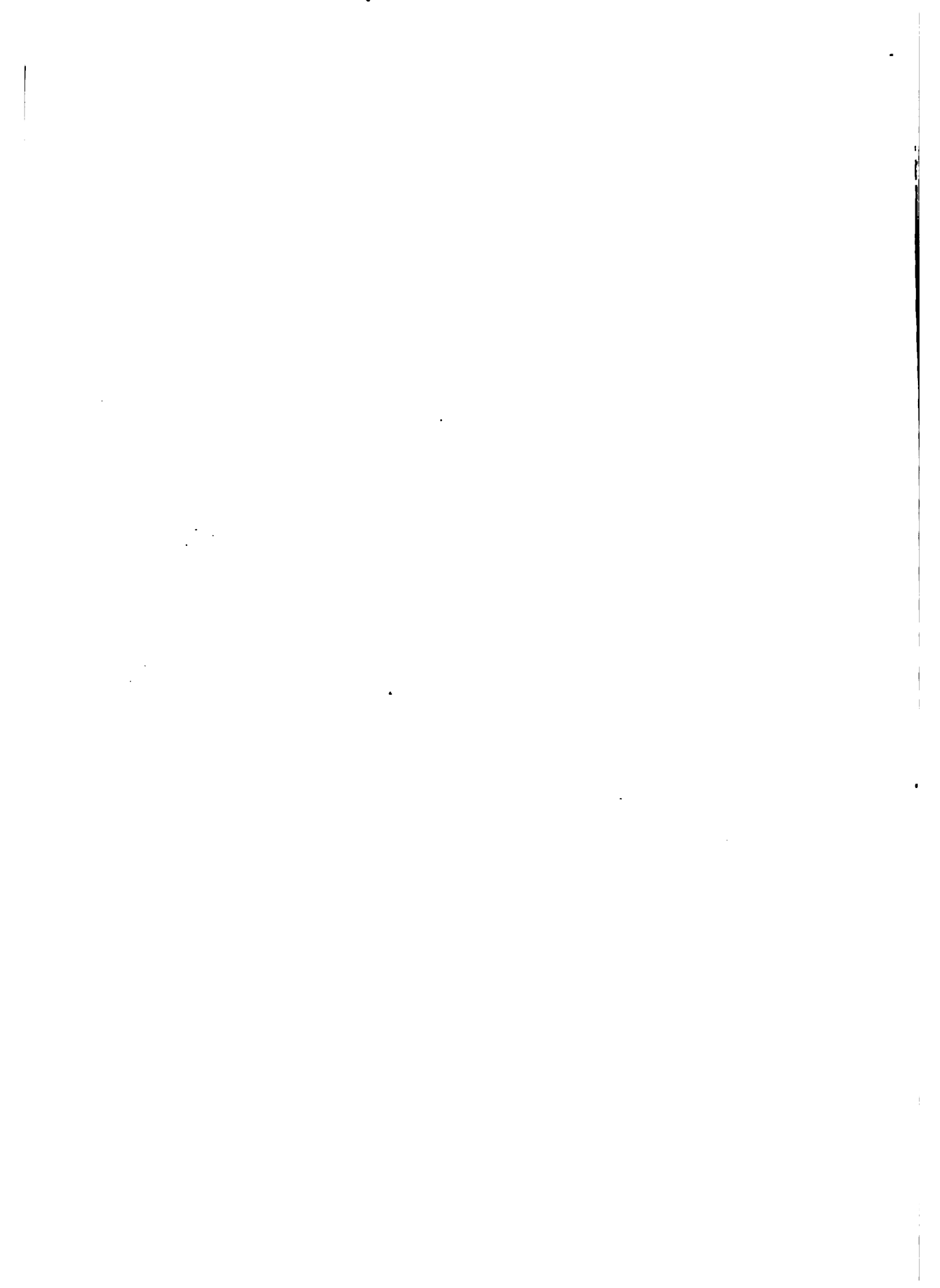
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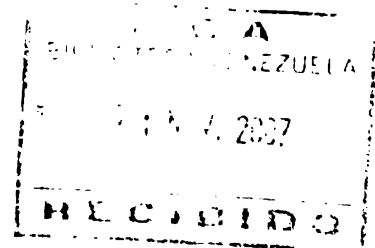
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**THREE ROW CASSAVA**

**PLANTING MACHINE**

**P.F. ROBINSON**



**INTER-AMERICAN INSTITUTE OF AGRICULTURAL**

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**JUNE, 1976**

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1. INTRODUCTION

Cassava is changing in status in Guyana from a traditional minor crop to a commercial plantation crop. The Government of Guyana recently established three cassava mills with a total capacity of 95 tons per day. A fourth mill with a capacity of 15 tons per day is expected to be established shortly.

Assuming a yield of 5 tons per acre and a three hundred day working year a total of 6,600 acres of cassava will be required to keep these mills fully operational.

It was felt that some form of mechanisation would be advantageous with plantings of such magnitude. Efforts to mechanise this operation have resulted in the design of a three row planting machine (a).

---

(a) A.H. ~~WATTS~~ P.F. Robinson and I. Hassan (1977) Mechanised planting of cassava (*Manihot esculenta* Crantz) stem cuttings on Guyana's light peats and peaty clays. Turrialba 27: 137-141.

The following information was obtained from the files of the  
 Internal Security - Communist Section, New York Office, dated  
 11/15/68, regarding the activities of the following  
 individuals:

[Name] was born [Date] at [Location]. He is a [Nationality]  
 and has been active in the [Organization] since [Year].  
 He is currently residing at [Address].

[Name] was born [Date] at [Location]. She is a [Nationality]  
 and has been active in the [Organization] since [Year].  
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 and has been active in the [Organization] since [Year].  
 He is currently residing at [Address].

This information was obtained from the files of the  
 Internal Security - Communist Section, New York Office, dated  
 11/15/68.

2. DESCRIPTION OF EQUIPMENT

The equipment consists of a horizontal parallel frame 10' x 3' which is welded on to a vertical "A" frame for attachment to the three point linkage of a tractor. The parallel frame supports a hopper which is divided into four compartments by three hollow planting tines at 3' centres. Behind each tine is a seat and foot rest so positioned to permit each person planting a clear view of the opened furrow. A looped chain fixed to the rear of each hollow tine gives effective coverage of the cassava sticks.

3. OPERATION

In use the planting machine with three operators and 800 - 900 lbs of pre-cut stem cuttings is drawn by a tractor in the 60 - 75 H.P. range. Each operator takes sticks from the hopper in front of him and drops them singly via the hollow tines into the open furrow. The sticks lie more or less flat in the furrow and the spacing between sticks can be easily controlled by the forward movement of the machine. The trailing chains give a light covering of the sticks in the furrow.

Planting depth is controlled by adjustment of the skids. Care should be taken in marking out the first run only as the track left by the skids provides sufficient guidance for the operators to continue planting in a uniform manner.

Maximum output can be obtained from the machine if sufficient cuttings are prepared before hand.



4. SPECIFICATIONS

Hopper Size 10'0 x 3'0 x 1'6" deep

Hopper Capacity 800 - 900 lbs

Tractor Speed 1 M.P.H.

Row Spacing 3'0"

Machine Output .75 acres/hour

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General Techniques for land preparation on Guyana's coastal soils. P.F. Robinson & R.E. Pierre, January 1978. Unnumbered.

Situation Study on legume production in Guyana. R.E. Pierre & P.F. Robinson, June 1978. No.1

Seed production and distribution in Guyana with particular reference to blackeye pea (*Vigna Unguiculata*). R.E. Pierre, June 1978. No.2

