Agronomic Improvements for Sustainable Peanut Production in Guyana

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Peanut Production: Market Driven

- Ministry of Education: School Snack Program (peanut butter and cassava bread sandwich, fruit juice)
  - *3,500 snacks daily
  - *30,000 lbs of peanut butter/yr
- Transfer model to Hot Lunch Program:
  - *Use local produce and meat to prepare healthy lunches

Issues

- Use of slash and burn farming
- Limited access to inputs
- Limited use of fungicide sprays
- Reliant on 1-2 varieties of peanut
- Reliant on 2 crops (peanut, cassava)
- Expansion to livestock production (to meet hot lunch needs) limited by access to feed

Table 1. Final disease ratings and yields (per plot) of 11 genotypes of peanut in the North Rupununi, Guyana under rainfed conditions in 2011

Genotype	Leaf Spot	Leaf Rust	Yield (lbs/plot)
97x36-HO2-1-B2G-3-1-2-2	4.3	3.0	7.9
99x33-1-B2G-2-2-2	5.5	3.3	7.4
BOL3-7	7.7	1.9	6.4
98x116-5-1-1-1-2-1	6.3	3.3	7.3
York	5.7	3.2	8.7
BOL19-b5	6.2	3.7	7.6
FL-07	8.0	3.8	6.3
Southern Runner	5.8	2.3	6.8
Guyana Jumbo	4.0	2.7	8.2
99x33-1-B26-B-1-1	5.2	2.7	7.8
Tifrust	6.7	1.2	6.3

CURRENT RESEARCH

SSOS Community Farm

Project 1

Evaluation of 11 genotypes of peanut for disease resistance and yield potential in the North Rupununi of Guyana, South America. Yield components will be measured, including quality of seed and potential markets for each genotype (Table 1).

- Introduce farmers to varieties that can be grown in the North Rupununi with disease resistance qualities and comparable yields to local varieties.

Collaboration

NGO: Society for Sustainable Operational Strategies (SSOS)
Government: National Agriculture Research and Education Institute (NAREI)

SSOS Community Farm

- 14 acre farm obtained in 2009
- Under production in 2010 and 2011
- On-farm research
- Farmer participation (6 acres)
- Training of NAREI agent
- Utilize field days as method for dissemination of results

Project 2

Evaluation of intercropping peanut with cassava and corn for yield, land use efficiency, and economic return.

- Demonstrate the utilization of more intensive cropping systems that will maximize land use.
- Encouraging farmers to use more intensive cropping systems on less land (reduce slash and burn farming).

Project 3

Determining efficient systems for producing maize for poultry feed production.

- Evaluate of planting densities and nutrient sources for maize.
- An economic analysis will determine the most cost effective method for production in comparison to imported grain.

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