Renewable Agriculture and Food Systems: 31(1); 9–11 doi:10.1017/S1742170515000356

Peanut farming in the rural interior of Guyana

A.H. Cho[1]*, G.E. MacDonald[1], J.T. Williams[2] and E.D. Isele[3]

[1]Agronomy Department, University of Florida, P.O. Box 110500, Gainesville, FL 32611, USA.
[2]Peanut Collaborative Research and Support Program, University of Georgia-Griffin, Griffin, GA 30223, USA.
[3]Sustainable Development Practice, University of Florida, P.O. Box 115560, Gainesville, FL 32611, USA.
*Corresponding author: alycho@ufl.edu

Accepted 29 August 2015; First published online 2 October 2015 **From The Field**

Abstract

Farmers of Aranaputa Valley village in the rural interior of Guyana rely on peanut as their primary cash crop. The focus of this study was to document current peanut farming practices in this community. Household surveys and informal interviews were conducted in 2012 to evaluate the 2011 farming season. Farmers relied on distant markets or the community development council for agricultural inputs. More than half of farmers were selling their peanut crop to truck drivers who pass through their community, while 35% sold their peanut crop to the local peanut butter cottage industry. Interviewees indicated the desire for new peanut varieties to produce in their farming systems, suggesting the potential for adoption of new varieties recently evaluated in the region. These results suggest a need for additional agricultural research in the region and development projects that can assist in closing the gap of market accessibility; both for inputs and farm sales.

Key words: Guyana, peanut, market access

In the rural interior of Guyana, the primary staple crop is cassava (*Manihot esculenta* Crantz) and peanut (*Arachis hypogaea* L.) is the primary cash crop. The interior Region 9 of Guyana, often called the Rupununi, is characterized by open savannas dotted with bush islands of forest and surrounded by dense forest near rivers and on the mountainsides. Most farmers are Amerindians, who continue to use rotational farming practices (slash and burn where farmers return to plots after 15 yr) to produce crops.

From 2002–2012, a United States Agency for International Development (USAID) Peanut Collaborative Research and Support Program (PCRSP) conducted research to improve peanut production in Region 9 of Guyana. While the agronomic and value added aspects of peanut production were evaluated through the PCRSP, researchers noted a significant lack of recent publications not only on agricultural production in the country, but also on the land use and farming practices of Amerindians. Therefore, the overall focus of this study was to document current peanut farming practices in Aranaputa Valley village in Region 9 of Guyana.

Surveys and informal interviews were conducted from May to October of 2012 in the Aranaputa Valley village in the North Rupununi of Guyana, South America. Aranaputa Valley village has 100 households, with a population of 562 (NRDDB, 2010). A total of 21 farmers were surveyed and six farmers were interviewed informally based on their experience in the previous (2011) farming season. University of Florida Institutional Review Board (IRB) approval was granted (Protocol #2012-U-0565), and interviewees and survey subjects were volunteers who agreed to the study with no compensation. Additionally, approval was obtained from the Aranaputa Valley village community village council, including the Chairman Kenneth Forde. The Aranaputa Valley village has about 100 households, and while most households participate in farming activities, not all do. Although only 21 farmers were interviewed, this represented a good portion of the population (21%, out of 100 households) and reflects the general practices and opinions of farmers in this specific community.

Peanut farmers indicated that on average they were producing 1514 kg ha^{-1} of peanut on 4.12 ha of land per farm in 2011. That year most farmers averaged a market price of USD$1.91 kg^{-1} and sold their peanuts to truck drivers for markets in Georgetown (the capital), followed by the local peanut butter cottage industry. Only a few farmers sold to local markets or kept their entire crop for their homes (Fig. 1). The cash income from peanut production is derived from a niche market created by the demand for roasted 'Guyana Jumbo' peanuts in the shell in Georgetown and the limited amount of production within the country. The relatively high prices per kg may seem to be excessive by U.S. standards. However, production costs are very high and this

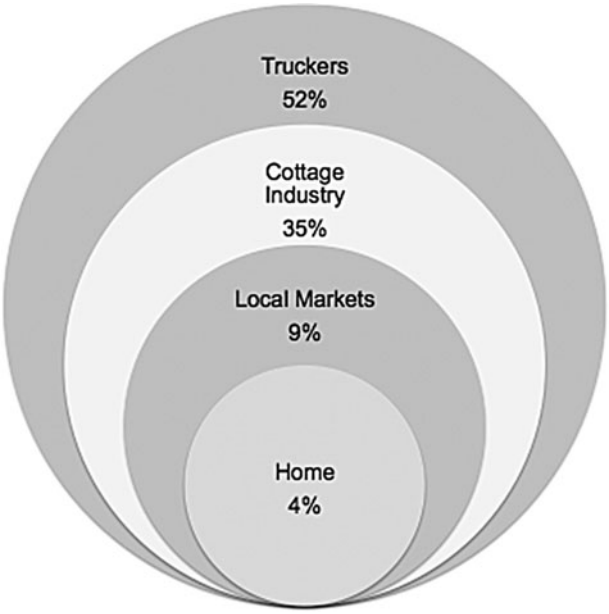

Figure 1. Market sources for peanut produced by farmers in the Aranaputa Valley village, North Region 9 (Rupununi), Guyana expressed as a percentage of farmers surveyed. Survey conducted in 2012 with a total of 21 participants.

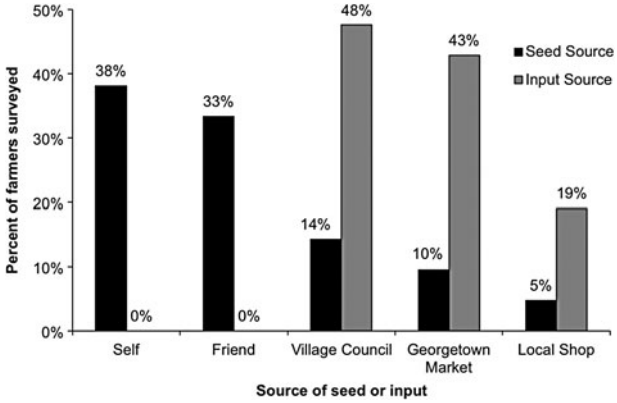

Figure 2. Sources of seed and inputs used for peanut production in the Aranaputa Valley village, North Region 9 (Rupununi), Guyana expressed as a percentage of farmers surveyed. Survey conducted in 2012 with a total of 21 participants.

income is often the only source of cash for an entire household for the entire year, occasionally supporting a multi-generational household. In 2011, the truck drivers paid more than the cottage industry, and may account for the high percentage of farmers who sold their peanuts to the truck drivers. When the market price is equal between truck drivers and the cottage industry, many farmers will sell to the first who is ready to pay cash for their crop. One advantage of the cottage industry is the locality within the village and also the community and family connections that encourage sales to the cottage industry when market prices are the same. The variability in price from year to year is usually dependent on the number of farmers producing peanuts, the yields of these farmers, and the timing of harvest. Usually, farmers who are early to the market achieve a higher price than those who harvest later in the season.

Most farmers rely on their own seed (38%) saved from the previous year or seed from a farmer-friend (33%) for planting, but for other agricultural inputs farmers rely on the Georgetown market, the local shop and on the Community Development Council (CDC) of the village (Fig. 2). The unpaved road that leads to the more distant Georgetown market and that also provides transport of the inputs to the local markets is an important constraint to agricultural production in this community. During the rainy season when peanuts are in production the road can become flooded and impassable.

In addition to seed and agricultural inputs, farmers also indicated a need for new peanut varieties. Most farmers surveyed (55%) who grew peanut chose to grow both 'Guyana Jumbo', a locally adapted variety, and 'C-99R' an introduced variety, in 2011. Fewer chose to plant only one or the other ('C-99R', 10%; 'Guyana Jumbo', 35%). Many farmers are interested in planting new varieties of peanut (81% of those surveyed), but indicated concern about the lack of new varieties being introduced into the area. Farmers are interested in new varieties because 'Guyana Jumbo' is a wide-spreading type of peanut making it difficult and expensive to hand harvest. Due to the high market demand for 'C-99R', farmers are often interested in planting this variety, but there is often a shortage of available seed at planting. The local peanut butter market pays a higher price for 'C-99R' due to the desirable peanut butter qualities of this variety. Therefore, farmers are interested in new varieties that are marketable and yield high. The strong interest from the community indicated a need for varietal introduction and technology transfer of new peanut varieties into this community. The need for introduced peanut varieties that are similar to local varieties in yield and growth characteristics were evaluated under the PCRSP program in Guyana in 2011 and 2012. These results suggest farmers are open and willing to adopt introduced peanut varieties into their current cropping systems.

The surveys in this study were conducted only in a specific (single) community in the North Rupununi region of Guyana, and therefore the results reported have limitations for generalization to a regional scale. Additionally, there are always limitations associated with self-reporting, especially for yields and profits. Future work related to evaluation of household level farming practices and land use in Guyana should be more extensive, both in the number of respondents and also in geographic area to understand potential broader implications. Nevertheless, the results from the surveys and informal interviews conducted in the Aranaputa Valley village define some of the major constraints and consideration for agricultural productivity and household

https://doi.org/10.1017/S1742170515000356 Published online by Cambridge University Press

level food and income security for farming households in this community.

The results from this study implicate a need for agricultural research that addresses input accessibility and introduction of new peanut varieties. These results support the applicability of previous research conducted within the community by PCRSP, in association with the Society for Sustainable Operational Strategies (SSOS), to demonstrate appropriate input use in a savanna farming situation in addition to peanut varietal trials.

Acknowledgements. The authors would like to acknowledge the USAID Peanut Collaborative Research and Support Program Grant UF-155 for funding of this research.

Reference

NRDDB. 2010. Aranaputa Village information, North Rupununi District Development Board. http://nrddb.org/taxonomy/term/3 (accessed July 3, 2013).

https://doi.org/10.1017/S1742170515000356 Published online by Cambridge University Press