Six Points of a successful Rice Extension Programme in Guyana

Kuldip Ragnauth
Manager - Extension Services
Guyana Rice Development Board
116 – 117 Cowan Street, Kingston
Georgetown, Guyana
Email: rkuldip12@gmail.com

Wayne G. Ganpat
University of the West Indies

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Introduction

The rice industry is currently the largest agricultural industry in Guyana. It is the bedrock of the Guyanese rural economy and over the last two years it became the main contributor to export earnings. Rice accounted for about 37% of agricultural GDP and 14 % of total exports in 2013 (MOA, 2013, p. 28). It is the greatest user of arable land with approximately 8,000 families directly and 150,000 indirectly associated with the industry. Two rice crops are cultivated annually.

Government strategy to improve rice production focused on a coordinated technology transfer effort to empower farmers on innovative strategic management practices that, when applied, will result in significant yield increases.

The Guyana Rice Development Board (GRDB) provides extension services for the rice farming sector. In 2007, the Extension Manager travelled to neighboring Venezuela as part of a planned educational tour to evaluate the rice production technologies being practiced there for possible adoption in Guyana. Consequent upon this visit, a set of six improved management technologies (renamed “six points” in Guyana), was introduced and the GRDB sought to educate farmers through various farmer-group activities. Various reports (MOA, 2013, p. 30, GRDB, 2013) show significant increase in rice production since 2007. However, no study has been done to assess the adoption of the “six points” by farmers and its impact on yields and outcomes.

Purpose

The purpose of this study was to (i) assess the extent of adoption of the “six points” technology package, (ii) reflect on the process that led to achieved outcome and (iii) make recommendations for other commodity programmes.

Methodology

A mix of methods was used: (i) a formal survey using a structured questionnaire which was administered to 454 farmers in July 2014 selected using proportionate random sampling. Data were collected on adoption of the “six points”, yields, participation in extension activities and perception of extension’s intervention, and (ii) a post survey reflective interview with the

Extension Manager to detail the methodological process of the introduction of the technology and to evaluate the extension approach used.

Results

Survey results

Farmers' main information source was Extension officers (87%) and the majority (49%) of farmers attended up to six extension activities in the last year. 60% participated mostly in Famer Field Schools and 69% demonstrations. The majority of farmers (66%) had been practising the six points for up to three years; 29% for up to five years and 5% up to seven years.Overall, there was a high level of adoption (84%) of the "six points" technology package. Adoption of the individual components varied however: highest adoption was for "Time of planting" and "Treatment of Seeds" (95% respectively); 84% adopted "Weed control" and "Use of Mixed fertilizer;" 81% adopted "water management" and 67% (the lowest) adopted "Density of Planting practice."

Overall, the "six point" technology package was applied to over 80% of each farmer's holding. The majority of farmers (65.7%) reported up to 40% increase in yield; 29.3 % reported up to 60% yield increases while 5 % reported even higher yields. Most farmers (66%) reported that Extension contributed "a lot" to their achievement of these higher yields, 27% reported "some contribution" and 10%, little or no contribution.

Post survey reflective interview results:

The methodological approach used by the Extension Manager can be summarized in six points.

1. Desk research of available technologies followed by attendance at workshop in nearby rice producing country.
2. Site visit to survey technology use by farmers in chosen country
3. On-farm validation in home country of a package of six new technologies bundled together and renamed the "six points" technology package in collaboration with farmers.
4. Use of on-farm validation and result demonstrations to further adjust the "six points" based on farmers' recommendations.
5. Country- wide roll out of the "six points" using farmer Field Schools as the main education activity.
6. Regular "End of Season" review sessions as evaluation method to plan for next rice season.

Conclusion

Main conclusions are that (i) Extension had a significant impact on the improved yields of rice through the adoption of the "six points" technology package, and (ii) There can be no substitute for sound extension practice as evidenced by the methodological approach, that is based on grounded theory (Qamar, 2005).

Recommendations

The methodological approach should be adopted in the other commodity extension systems and (ii) suitably adapted and offered to the state extension system which services smaller farmers in mixed farming systems in Guyana.

References

Guyana Rice Development Board. (2013). *Annual Report 2013.* Retrieved September 13, 2014, from http://grdb.gy/images/stories/annualreport/Annual%20Report%202013.pdf

Ministry of Agriculture. (2013). *A National Strategy for Agriculture in Guyana 2013-2020* Retrieved September 10, 2014, from http://www.grdb.gy/images/stories/annualreport/national%2

Qumar M. Kalim. (2005). *Modernizing National Agricultural Extension Systems: A Practical Guide for Policy- Makers of Developing Countries.* FAO, Rome, Italy.