

## Production and marketing of ginger through Forward Sales Contracts: A case study in *Galagedara*

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### Abstract

Ginger (*Zingiber officinale*) is mainly used for manufacturing oil, oleoresin, essence, soft drinks, non-alcoholic beverages, medicines and perfumery. Sri Lanka produces about 5,000 metric tons of ginger and also imports about 2,000 metric tons annually. Ginger is mainly grown in homestead areas in Sri Lanka. The cultivation of ginger was not much popular in *Galagedara* area until year 2003. The commercial cultivation of ginger was introduced to the area, under the “*Govi sahanaya*” system by the Central Bank of Sri Lanka. Presently, 120 farmers have entered the commercial ginger cultivation covering 22 ha including both uplands and lowlands in *Galagedara* area. *Kandurata* Development Bank (KDB) provides loans valued Rs.90,000 per 0.4 ha for ginger cultivation. *Ceylon Cold Stores (CCS)* purchases ginger at a reasonable price under forward contract system. Necessary quality and quantity requirements are 2.5cm long ginger rhizomes of indigenous variety sliced in to 10 and dried them well. Farmers are allowed to sell a minimum of 500kg dried ginger produced from 0.4ha of land. Forward Sales Contracts (FSC) have been signed by farmers, *Ceylon Cold Stores* and *Kandurata* Development Bank. This formal Forward Sales Contract mechanism is a tri-participate arrangement among the farmers, buyers and the bank. The farmers produce average 8,289 kg of ginger/year/ha spending average Rs.2,42,889. Farmers sell ginger as dried ginger or seed rhizomes. The marketing channels of ginger are very straight and have a simple marketing system. Farmers sell seed rhizomes directly to colleague farmers or sell dried ginger to the company through formal contract basis.

All ginger farmers in the area are the members of “Ginger Farmer Organization”. This farmer organization is maintaining a close relationship with KDB. It helps the farmers in obtaining loans at correct time and provides various support services to the member farmers. Farmers are able to present their problems and difficulties to buyer (CCS) through the farmer organization. The price of ginger is decided through a discuss all the parties including farmers, company representatives, bank and Agriculture Instructor of the area. Majority of the farmers accept the price as a better price. CCS pays Rs.375 per

1kg of dried ginger and Rs.100 per 1 kg of seed rhizomes. The money transactions are solely done by the KDB based on the pre-determined contract price. The FSC for ginger production has got a direct effect in increasing income of the farmers. Hence it is important to apply the experience of *Galagedara* to promote ginger cultivation in other ginger producing areas and to improve the welfare of farming society.

### **Introduction**

Forward market mechanism reduces the volatility of farmers' income and also promotes agro business and agro processing enterprises. Forward market mechanism was initiated by Central Bank of Sri Lanka as "*Govi sahanaya*" during 1999. Although Sri Lanka has had such forward marketing arrangements on informal basis, the "*Govi sahanaya*" was the first attempt to introduce a forward contract system on a formal basis. As the result of "*Govi sahanaya*" system commercial cultivation of ginger has been initiated in *Galagedara* area. The Forward Sales Contracts (FSC) have been signed by farmers, Ceylon Cold Stores (CCS), and *Kandurata* Development Bank. Bank act as a facilitator through out this process assuring a stable price for the farmer for their ginger. Further it assures a guaranteed supply to the buyer at a predetermined price, there by helping the buyer to preplan the procurement process and the cash flow properly. Hence, the study mainly focuses on: to examine ginger out grower system in *Galagedara* area, to ascertain the ginger farmers and their association and to analyze the marketing functions and farmer margins of ginger out grower system.

### **Materials and methods**

The study has been carried out at *Galagedara* area in *Kandy* district. Primary information has collected through farmer survey and personal interviews of Agriculture Instructor of the area, and other officials in Farmer service Center-*Aludeniya*, and *Kandurata* Development Bank. Farmer survey was conducted in *Aludeniya* Agrarian Division due to easy access and higher percentage of ginger farmers concentrated on that area. Information was gathered from purposively selected 45 ginger farmers using pre-tested questionnaire. Secondary data were gathered from books, journals, and annual reports of the Central Bank. Most statistical data was collected from publications of Department of Censes and Statistics and Department of Custom. The data thus obtained were processed, and analyzed with non-parametric statistics methods for interpretation.

## Results and discussion

Ginger is cultivating in both upland and lowland areas in *Galagedara* where lowland areas produced comparatively higher yield than upland areas. The farmers produce average 8,239 kg/ha of ginger annually. Majority of farmers (52%) belongs to young age group, indicating the young generation has a tendency to ginger cultivation. In the present situation, this area has a considerable share in the whole ginger production in Sri Lanka. Agriculture Instructor (AI) of *Aludeniya* and Ginger Farmer Organization play a vital role in promoting ginger cultivation. However the farmers are not much interested to receive additional market information, because they think that they receive enough information from the AI. According to the Willcoxon Signed Rank test farmers' perception of extension service is good.

Farmers sell ginger as dried ginger and seed rhizomes. Farmers spend Rs.172.90 to produce 1kg of dried ginger and obtain Rs.375 per 1kg. In addition to that farmers sell average 720kg of ginger as seed rhizomes directly to fellow farmers. They spend Rs.29.30 to produce 1kg of seed rhizome obtain Rs.100 per 1kg. Farmer margin analysis reveals that ginger cultivation is profitable indicating 46.1% margin from dried ginger and 29.9% from seed rhizomes. Poor technical facilities, higher prices of fertilizer and labour scarcity are the most acute problems faced by farmers. Kruskal-Wallis statistical analysis reveals that the major limitation is poor technical support for farmers.

## Conclusion and recommendations

Although ginger is a new crop to the area farmers obtain higher profit through forward marketing mechanism and good agricultural extension service. Ginger farmer organization perform more active role in this regard. Farmers in the area should be provided required technical support services particularly machines for peeling and slicing. The farmers should be provided with necessary instructions about latest technical know how in the processing of ginger. There is a great potential to expand ginger cultivation in Sri Lanka through formulating an export oriented market plan for ginger.

## References

Pieris, N.1982.Sri Lanka aromatic plants of economic value. Colombo 7; Ceylon Institute of Scientific and Institutional Research.