

Micro-Enterprises Development for Poverty Alleviation

Volume II



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Email.: ossc@wlink.com.np

Promotion of Ginger Production Micro-enterprise¹

Abstract

Ginger is a cash crop grown in the mid-hills of Nepal. Many studies have shown that it has tremendous potentials both in domestic and export markets. Harnessing this potential requires scaling-up production and establishing collection centres. This study was conducted to find the ways to promote ginger micro-enterprise in Dhungegadhi VDC, Pyuthan. Though ginger is more labour-intensive than the cereal crops, farmers give priority to cereal crops to achieve minimum level of food security and grow ginger in a small area. Even with the limited information, this study was able to identify that low productivity of ginger is due to the use of local varieties and contaminated seeds. Farmers are price takers in the market. Despite the low productivity and market problem, farmers are still interested to grow ginger as it is a cash crop and gives more employment to family labour. It was found that ginger production enterprise can be promoted with a little support in production and marketing. Practical training in seed production, rhizome selection for seed, disease management and market information analysis should be conducted to promote ginger production enterprise.

1. Introduction

1.1 Background to the Study

Ginger (*Zingiber officinale*) is regarded as the most important cash crop grown in the mid-hills marginal and submarginal lands at an altitude of 600 to 1,600 metres above sea level. The area and production of ginger is exponentially increasing over the years. In 2004/05, ginger was planted in 11,930 hectares (ha) of land producing 152,704 (mt) metric tons (AEC 2007). The Agriculture Perspective Plan - APP (APROSC and JMA, 1995) and the Tenth Five-Year Plan (NPC, 2002) emphasized on the promotion of commercial production of high-value crops like fresh vegetables, spices and seeds. Despite the increasing planned efforts to commercialization and diversification of high-value crops, there are no deliberate efforts to develop marketing in the past (Mathema, 1998). Horticulture Master Plan and prioritized by the APP, the horticultural sector is considered as one of the high-value sectors that has tremendous potentials both in domestic and export markets.

1.2 Statement of the Problem

Since ginger is a spice crop, household consumption is negligible. Most of the production goes for processing or to the fresh produce market. As the growers are small, each individual farmer's production is not sufficient for the traders to collect ginger from them. For establishing a small collection centre even to promote

¹ BS Thesis 2008 by Min Bahadur Nepali - Purbanchal University, Himalayan College of Agricultural Science and Technology

marketing, information on local production and surplus ginger for marketing is not available. This information is required for scaling-up production and linking with the traders. In order for the local government to promote the commodity, the local government needs information on the contribution made by ginger towards the improvement of the socio-economic life of rural people and prospects of production in terms of local resource utilization. This information on ginger production and marketing in Pyuthan was not available.

1.3 Objectives of the Study

The general objective of this study was to find the ways to promote ginger micro-enterprises in Dhungegadhi VDC, Pyuthan. The specific objectives were to:

- assess the existing situation of ginger production and processing,
- explore the ways for the institutional development of ginger at local level,
- analyze the scope and opportunities to promote ginger as an enterprise for improving the economic status of the ginger farmers, and
- identify the problems faced by ginger farmers on production and processing.

2. Literature Review

2.1 Recommended Ginger Production Technology

Ginger grows well in sandy or clayey loam soil planted in the last week of mid-February to mid-April (Falgun to Chaitra) with a spacing of 15-20 by 20-30 cm. The seed rate (rhizome of 40-60 g) is 4-6 tons per hectare. Ginger requires per hectare 25-30 mt manure, 100 kg nitrogen, 50 kg phosphorus and 50 kg potash. Mulching is essential to enhance germination, prevent washing-off soil due to heavy rain, maintain soil temperature and to conserve moisture. It needs two earthing-ups, first after 50 days and second after 75 days of planting. Ginger is grown during rainy season and thus requires a good drainage. Crop is harvested after 8 months. Depending on the varieties, the average yield is 15-30 mt/ha. There are fibrous (nase) and fibreless (bose) varieties under cultivation in Nepal. Kapurkot 1 is the recommended variety for cultivation in the mid-hills (Chandha, 2002; Arya, 2003; DGCDD, 2003; NARC, 2008).

2.2 Ginger Promotion Policy

The APP is a comprehensive document for agriculture development in Nepal. It has emphasized the development of horticultural sector in the hills. High-value crop is one of its priority outputs. Off-season vegetables and spices are emphasized in the hills. National Agricultural Policy 2004 has given priority to develop the pockets of high-value agricultural commodities along the North-South highway and feeder roads and the pocket areas. The policy has envisaged that the promotion of high-value crops will contribute to alleviate rural poverty.

2.3 Status of Ginger Production and Marketing

Though ginger is cultivated throughout the country, mid-hills are considered as a suitable area for ginger cultivation in Nepal. Area and production of ginger is presented in Table 1.

Out of the total production of ginger in Nepal, about half the quantity is exported to India and the remaining is utilized domestically for the culinary purpose and retained seed for the next year. The farmers of the eastern hills trade ginger in fresh form, which is exported to India through Kakarvitta and Rani. Whereas, the farmers of western mid-hills trade fresh and processed ginger and their produce reaches India via Sunauli, Nepalgunj and Mahendranagar (AEC 2007).

Table 1: National production status of ginger

Description	2005/06	2006/07
Nepal		
Production (mt)	154197	160576
Area (ha)	12994	13170
Pyuthan district		
Production (mt)	1343	1284
Area (ha)	95	95

Source: ABPSD, 2002 to 2007

3. Research Methodology

3.1 Conceptual Framework

Ginger is a cash crop for the farmers of the mid-hills of Nepal. India is a major export market for Nepalese ginger. It is an export-oriented crop and thus contributes to earn foreign currency. Hence, it has immense potential to raise the socio-economic status of the rural farmers in the mid-hills. Since there is a high competition in the international market, there is a need to improve production, processing and marketing of ginger (NGRP, 1999).

3.2 Analytical Framework

In addition to demographic and socio-economic characteristics of the surveyed sample, organization of farmers into cooperatives for better arrangement of inputs and management of outputs, production technology used, cost and return from ginger production, marketing management and problems encountered in ginger production and marketing were further analysed to capture the objectives of the study.

3.3 The Data

This study was conducted in Dhungegadhi VDC of Pyuthan. According to various agencies, there were 396 people involved in ginger cultivation in Dhungegadhi VDC. For this study, 55 ginger farmers were selected randomly. The data was collected by interviewing the sampled farmers by using semi-structured questionnaire. The absence of record keeping system confined this research to the information that the farmers could recollect at the time of this study in a short time.

4. Results and Discussions

4.1 Socio-economic Characteristics of the Study Area

Although ginger is cultivated by 100 percent households, it is still at subsistence level. Cereal crops occupy major position as an effort to achieve food security. Maize occupies 40 percent area followed by wheat (27%) and paddy (16%). The majority of households still depends on agriculture for their subsistence. As the farm income was not enough to support the family, some of them were found going to India for seasonal employment. The respondents opined that since ginger cultivation is labour-intensive, seasonal migration can be reduced by promoting ginger farming. One third of the respondents were found illiterate. Illiteracy was very high among women (63.2%). The involvement of women was more than male in ginger production. Since ginger production requires adoption of modern production technology, there is a need to improve women's literacy level.

4.2 Ginger Production in the Study Area

Planting starts from April (Chaitra) and continues to June (Jestha). Harvesting starts from November (Ashoj) and continues to February (Phalgun). Due to lack of storage and marketing facility, more than 78 percent farmers practise late harvesting. Most of the farmers were found to have no information on the source of improved variety. They used their own local collection. Very few farmers (16.89%) used improved variety. Due to the use of local variety and own seed, the yield was low. The crop suffered from rhizome rot. In the surveyed sample, ginger was cultivated in 23.8 ropanis of land that gave a production of 8,335 kg. The yield was 350 kg/ropani (7 mt/ha). This yield was even less than half of the potential yield (15-30 mt/ha). A simple cost-benefit analysis shows that the ginger farmers are making nearly Rs 5,000 per ropani (Table 1).

Table 1: Cost-benefit analysis

Particulars	Average	Maximum	Minimum
Area of cultivation (ropani)	0.62	2.00	0.15
Production (kg)	938	2,680	666
Price (Rs/kg)	9	10.00	8.00
Gross income (Rs)	8,444	16,800	5,333
Cost of production (Rs/ropani)	3,583	4,920	1,680
Profit (Rs/ropani)	4,861	11,880	2,033

4.3 Market Situation

There was no processing practised. Most of the produce (91.08%) was sold in fresh form, Most of it (91.07%) was sold in the local market (Baddanda). Farmers have no access to market information. Retailers were fixing the price and farmers were price takers.

4.4 Institutional Development for Ginger Production

There were 244 farmers' groups within the district supported by the District Agriculture Development Office. Among them, only eight groups were associated with ginger cultivation. Out of these, there are only two groups in the study area. The respondents reported that there was no cooperative involved in the development of ginger as an enterprise.

4.5 Problem faced in Ginger Production and Marketing

Rhizome rot was reported as a major constraint in ginger cultivation. Lack of improved variety, lack of storage facility for seed rhizomes, knowledge and requirements of disease management measures were the major problems in ginger cultivation in the study area. Arrangement of mulching materials has also become short in the study area. Unavailability of processing equipment was considered a problem to motivate farmers for adding value to the fresh ginger. Access to market information was another problem in price negotiation with the traders.

5. Conclusions and Recommendations

5.1 Conclusions

Ginger is cultivated as it is more labour-intensive than the cereal crops. Yet, as there is no assured market for ginger, farmers give priority to cereal crops to achieve family food security. For this reason, although ginger is cultivated by every household, it is still at subsistence level. There were more women involved in ginger production, but their literacy rate was very low, affecting the adoption of processing enterprise. Due to unavailability of improved varieties, farmers are using local varieties. Farmers are using some part of the production as seed since there is no separate seed production system, due to which there is a problem of rhizome rot.

Consequently, the productivity of ginger in the study area is lower than the national average. Farmers are selling the product in the monopoly market in Baddanda as there are no other buyers. Despite the low productivity and market problem, farmers are still interested to grow ginger as it is a cash crop and gives more employment to family labour. In view of labour migration in search of seasonal employment, labour-intensive nature of ginger cultivation and the cash income that it generates, farmers were found interested to increase the area of ginger cultivation. However, they were seeking support in production and marketing.

5.2 Recommendations

In order to promote ginger production enterprise, this study has made the following recommendations. Literacy programmes should be launched focusing the women to enhance the rate of technology adoption. In view of the need to add value to fresh ginger and the current level of low production, there should be production scaling-up programme. Action research should be conducted for the management of rhizome rot.

Practical training in seed production and rhizome selection for seed should be conducted to enhance productivity.

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