

Short Communication

Profitability of Winter Vegetables in Faisalabad (Pakistan)

ISHTIAQ HASSAN, KHUDA BAKHSH[†], MUZAFFAR HUSSAIN SALIK[‡], MUHAMMAD KHALIL[¶] AND NASEEM AHMAD^[]

SSMS, Adaptive Research, Extension Wing, Govt. of the Punjab, Vehari-Pakistan

[†]Department of Environmental and Resource Economics, [‡]Agri. Information Centre, [¶]Institute of Horticultural Science, and

^[]Department of Plant Pathology, University of Agriculture Faisalabad-38040, Pakistan

ABSTRACT

The productivity and profitability of three winter vegetables namely cauliflower, carrot and turnip growing in vicinity of Faisalabad was evaluated. Details collected in 2004 on production cost and returns for these three vegetables were analysed. Production cost was highest for cauliflower and the lowest for turnip. Cauliflower production, however, generated the highest gross income and net returns. The highest share of total cost for each vegetable was devoted to labour. Returns on investments indicate that vegetable growing is a profitable farm activity in a short duration of time.

Key Words: Vegetables; Factors Farmers; Profitability; Faisalabad

INTRODUCTION

Vegetable growing is an important farming activity from the economic returns point of view. The international Food Policy Research Institute (IFPRI; 1998) conducted an economic evaluation of the USAID-sponsored Asian Vegetables Research and development Center (AVRDC) and international Center for Living Aquatic Resources Management (ICLARM) Projects in Bangladesh during 1996-97. The study found 350% higher monthly net return from vegetables than from rice. It is estimated that 25% of fruits and vegetables go waste during harvesting, transportation, packaging, and storage. If only half of the wastage is avoided, Pakistan can earn US \$ 200 million worth of foreign exchange annually through the export (Nazri, 2002). At present, Pakistan has almost a non-existent share i.e., 0.22% in total world Vegetables Imports and Exports (GOP, 2001).

An important way of helping farmers to survive in the era of trade liberalization is to reduce their production cost so that the prices of locally produced vegetables become more competitive. They also include improved cultural practices, such as the use of low-cost structures to extend the cropping season and increase the quality of vegetable crops. Agricultural units are at a disadvantage. They are often small in size, run exclusively by the farm family, frequently short of capital and at the mercy of markets they do not control. It is unavoidable that the inputs, which constitute major cost of production, should be analyzed, so as to suggest low cost alternatives.

The present research was designed to study the economic aspects of vegetable production at the grower's level. The general objective of the study was to determine the cost of production, relative share of various inputs in

total cost, gross income and net returns, of important inputs used in the production of vegetables.

METHODOLOGY

The present study was conducted in the vicinity of Faisalabad for the year 2004. The vegetables covered were cauliflower, turnip and carrot. Ten villages were purposively selected for the collection of data. In all, 120 respondents (40 for each vegetable) were selected. Data collected from the respondents were used to estimate the cost of production and other various economic analyses. Cost of production of selected vegetables was calculated by using the methodology described by Ahmad *et al.* (2003).

Following formulae were used to calculate the different parameters.

1. Private profitability Margin (PPM)

$$PPM = YPd - Cp$$

Where,

Y= Yield per acre (kg)

Pd= Sale price of the product (Rs)

Cp= Cost of production including marketing cost per acre (Rs)

2. Coefficient of Private Profitability (CPP) or Returns per Rupee Invested

$$CPP = YPd/Cp$$

RESULTS AND DISCUSSION

The results presented in Table I show that the cost of producing cauliflower was the highest and the lowest one was found for turnip. This was due to the fact that the cauliflower-growing farmers made more use of pesticides as compared to the carrot and turnip growers. The most

Table I. Cost of Production and Factor Share in Total Cost

| Items | Total Cost (Rs./ac) | Land preparation | Seed | Manure & fertilizer | Irrigation | Pesticide | Labour | Land rent | Others | Total factor share% |
|-------------|---------------------|------------------|-------|---------------------|------------|-----------|--------|-----------|--------|---------------------|
| Cauliflower | 23541.12 | 7.14 | 3.35 | 12.89 | 8.68 | 9.95 | 30.61 | 5.10 | 22.28 | 100% |
| Carrot | 14572.12 | 10.47 | 13.28 | 9.35 | 8.18 | 2.06 | 30.93 | 5.18 | 20.55 | 100% |
| Turnip | 12318.68 | 9.56 | 5.76 | 13.12 | 10.41 | 3.52 | 34.70 | 7.86 | 15.07 | 100% |

Table II. Profitability of Vegetables

| Items | Gross income per acre | Gross margin per acre | PPM per acre | PPM per kg | CPP | Cost per kg | Cost per 40 kg |
|-------------------|-----------------------|-----------------------|--------------|------------|------|-------------|----------------|
| Cauliflower (Rs.) | 38952.57 | 20191.90 | 16411.45 | 0.88 | 1.65 | 1.32 | 52.8 |
| Carrot (Rs.) | 20367.02 | 8210.20 | 5794.85 | 0.47 | 1.40 | 1.31 | 52.4 |
| Turnip (Rs.) | 17237.30 | 8805.64 | 4918.62 | 0.53 | 1.39 | 1.01 | 40.4 |

important cost component of the selected vegetables was the labour used for different farming activities. Sharma *et al.* (1992) worked out that cauliflower, cabbage, and peas were the most remunerative vegetable crops in mid-hills of Himachal Pradesh. The input-output analysis suggests that farmers can increase the total income by enhancing the use of labour. The results estimated by AVRDC (2001) showed that 48.4% of the total cost was devoted to labour, followed by fertilizer 24.2% , marketing 6.9%, irrigation and pesticide 6.1% each, weeding and hoeing etc 4.6% and seed 3.7%.

Facts in Table II give an insight into the profitability of the selected vegetables. Keeping in view this information, it was ascribed that the cauliflower growers obtained higher returns than carrot and turnip growers. Cost per kg and per 40 kg was found approximately the same for cauliflower and carrot growers but private profitability margin and coefficient of private profitability were estimated highest for cauliflower growers. Keeping in view the cost information, it can be said that cauliflower growing is an input intensive practice.

CONCLUSIONS

The analysis of this study comes up with some important conclusions. Labour is the most important component of the total cost for all the selected vegetables. Cost per kg was almost the same for cauliflower and carrot

growers but cauliflower growing farmers obtained higher income than the carrot growers. Promoting vegetable cultivation can be an important tool to increase the income of small farmers and to generate additional jobs.

REFERENCES

- Ahmad, B., K. Bakhsh, S. Hassan and S.B. Khokhar, 2003. *Economics of Growing Muskmelon*, pp. 12–3. Department of Farm Management, University of Agriculture, Faisalabad, Pakistan.
- Asian Vegetable Research and Development Center (AVRDC), 2001. AVRDC–USAID Bangladesh Project: Introduction and development of adoptive technologies for sustainable year-around vegetable production and consumption in Bangladesh. AVRDC–USAID Bangladesh Project completion report. AVRDC, Tainan, Taiwan
- Government of Pakistan, 2001. *Economic Survey of Pakistan*. Finance Division, Islamabad, Pakistan
- Nazri, M.M., 2002. *Exporting Citrus Fruits*. Dawn Economic and Business Review, March 11–17
- Sharma, A.K., T.V. Moorti and R.C. Oberoi, 1992. *Economics of vegetable farming in mid hills of Himachal Pradesh*. Department of Agri–Economics, HPKV, Palampur, Himachal Pradesh, India
- The International Food Policy Research Institute (IFPRI), 1998. *Commercial vegetable and poly culture fish production in Bangladesh: their impact on income, household resource allocation, and nutrition*. Volume 1. Washington, D. C.: IFPRI. Pp. 76–9.

(Received 22 December 2004; Accepted 10 February 2005)