

To study cost/hac and input output ratio of different size of farms

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ABSTRACT : The present study entitled 'An Economic Analysis of production and Marketing of Papaya (*Carica papaya*) in Lucknow district of Uttar Pradesh' was conducted in year 2019-2020 with a sample of 80 respondents. The result indicated that the no. of respondents who had large and middle school education wear more in large farms followed by small and medium, and it was also observed that the number of illiterates wear more in small size farms followed by medium and large size of farms. The average area per hectare holding in small, medium and large Farms. The average area per hectare holding in small, medium, large farms 0.29/ha, 1.62/ha, respectively. The cost insured by small, medium and large farms (Rs.831339.25/ha), (Rs.83128/ha) and (Rs.8249.60/ha344250/ha), respectively and net return per hectare small, medium and large farms (Rs.230610.75/ha), (Rs.244471.3/ha) and (Rs.261750.4/ha) respectively. Input-output ratio per hectare was small (1:3:8), medium (1:3:9), large (1:4:2) respectively.

Key Words : *Carica papaya*, input-output ratio, farm size, marketed surplus.

India has been predominantly agrarian economy since the time immemorial. Agriculture occupies the central place in rural life. However, agriculture continues to be mainstay of our economy even today. Therefore, it is rightly said that agriculture is the backbone of Indian economy. Old subsistence farming specially in the rainfed, dry lands, hills, arid and coastal agro Ecosystems, horticultural crops are characterized by high productivity, higher returns, higher potential for employment generation and exports, comparatively lower requirement of water and easy adaptability to adverse soil and waste land situations.

The importance of papaya to agriculture and the world's economy is demonstrated by its wide distribution and substantial production in the tropical countries. It has long been known and cultivated in the home gardens by the people of tropics because it is one of the few fruits, which throughout the year gives quick returns and adapts itself to diverse soil and climatic conditions. It gives one of the highest productions in terms of fruit and net return next to banana.

The input-output ratio in most horticultural crops is much higher than that in the field crops. Their role in improving environment is an added advantage. Horticulture crop production plays a significant role in creation of jobs, generation of income and nutritional contribution. Worldwide production of fruit and vegetable crops has grown faster than that of cereal crops (Adugna, 2009).

In Uttar Pradesh the total area and production of fruits are 221.59 thousand hectares and 2,113.36 thousand metric tons respectively. The major fruit crops grown in Uttar Pradesh state are Banana, Mango, Papaya, Jack fruit, Guava, Lime, Custard apple, etc. The production in Uttar Pradesh, papaya ranks third. Total production of Papaya in Uttar Pradesh 2.76

lakh metric tons from an area of 12.41 thousand hectare forming 12% of the total fruit production in the state in 2014. It is cultivated in almost all the districts in the state. The major papaya growing districts are Lucknow, Varanasi, Ghazipur, Sitapur. Papaya production plays an important role in Uttar Pradesh state. Papaya was cultivated in an area of 12410 hectares and production was 275788 tons in Uttar Pradesh. It has sixth in rank with 4.9% shared in India during 2014-15.

Materials and Methods

The design of the study is a prerequisite for any scientific investigation, so this chapter seals with the material and methods adopted for conducting the present study. The present research had been taken up in Lucknow district of Uttar Pradesh. The details regarding methodology adopted in selection of location, methods of data collection in the selection of the samples, the nature and source of data, and the various statistical analytical tools and techniques employed in achieving the objectives of the study.

Results and Discussion

Table-4 Reveals that marketing cost, marketing margin, and price spread for channel III is important because lots of farm i.e. 63.95 % of growers preferring sale their produce this channel. Two intermediaries were identified through which papaya reaches to the consumer's i.e. commission agent, retailer. This is identified as the longest channel. The producer sells his produce to the commission agents, who in turn sells it to retailer in the market. Finally, the produce reach to the consumer after collecting margin. In Uttar Pradesh, the production of papaya 3.84 lakh metric tonnes from an area of 14.57thousand hectares which was 12% of the total fruit production in the state in 2017. Papaya was cultivated in an area of 145732 hect-

Table-1: Input wise cost cultivation of papaya.

S.N. Particulars	Small	Medium	Large	Over All
1. Hired human labour	17835.71	17980.65	18277.19	18031.18
2. Machine power	8807.14	8906.49	8996.88	8903.50
3. Seed cost & Nursery charges	12854.15	13505.85	13798.49	13386.16
4. Manure & Fertilizer	17255.65	17384.45	17945.62	17528.57
5. Plant protection	4223.71	4418.15	4448.15	4363.33
6. Irrigation charges	3571.56	3289.32	2380.52	3080.46
7. Interest on working capital @ 8%	5163.83	5238.79	5267.74	5223.45
8. Land Revenue	25	25	25	25
9. Rental value of owned land	8000	8000	8000	8000
10. Depreciation	500	525	550	525
11. Interest on fixed capital @ 10%	852.5	855	860	855.83
12. Family human labour	4050	3000	1950	3000
Total cost of cultivation	83139.25	83128.7	82499.60	82922.51

Note: Figure in parenthesis was percentage to the total cost of cultivation

Table-2: Marketable surplus for papaya (Qtls) for the study area.

Particulars	Small	Medium	Large	Sample average
Total yield produced	625 (100)	650 (100)	675 (100)	650 (100)
Quantity used at home	2 (0.32)	2 (0.30)	2 (0.29)	2 (0.30)
Relatives and religious person	0.7 (0.10)	1.10 (0.16)	1.10 (0.16)	0.84 (0.08)
Marketable surplus	622.3 (99.56)	646.9 (99.52)	672.26 (99.59)	647.15 (99.56)

Note: figures in the parenthesis indicates percentage to the total

Channel: Producer- Wholesaler/Commission agent- Retailer/Village merchant- Consumer:

Table-3: Producer- Wholesaler/Commission agent- Retailer/Village merchant-Consumer:

S. No	Particulars	Sample Average
1.	Producer sale price to wholesaler/commission agent	1600
2.	Cost incurred by the producer	
	I Cost of packing	80
	II Transportation cost	45 (2.81)
	III Grading, cleaning, etc	30 (1.87)
	IV Loading and unloading charges	10 (0.62)
	V Packing material cost (wooden bucket, paper and straw)	70 (4.37)
	VI Repining charge	35 (2.18)
	VII Miscellaneous expenses	90 (5.62)
	Total cost	360

ares and production was 384614 tonnes in Uttar Pradesh.

The high marketable surplus was due to the perishable nature of the papaya that it cannot be stored for a long period of time. Hence, the farmers cultivated papaya mainly for sale in the market to generate profit, which resulted in a high marketable surplus for papaya in the study area. The marketable surplus for papaya in the area was found to be 622.3, 646.9 and 672.26 quintals per farm which constituting (99.56%), (99.52%) and (99.56%) to their total papaya production. And rest quantity used for home consumption, relatives and religious. The marketable surplus was also higher in large size group as compared to medium and small farm size groups. This increase shows that more production at large farms comparatively too small and medium farms respectively, with the sample average,

was 647.15 quintal which constituting (99.56%) to total production.

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