Bioved, **30**(2) : 243–246, 2019 bioved.post@gmail.com http://biovedjournal.org/

To evaluate the disposal pattern of banana farm households in study area

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Received April 2, 2019 and Accepted June 26, 2019

ABSTRACT : The disposal pattern of actual Marketing surplus of Banana in three different marketing channels i.e channels I, channel II, channel III. Channels III was most prevalent adopted by the growers in the study area, as the highest percentage of the produce was transacted trough channel III i.e. 99.16 percent of growers followed by 98.79 percent through channel II and 97.88 percent through channel I respectively. Price spread in channel I was Rs.120/quintal, for channel II was 594/quintal and channel III was Rs 959/ quintal. Producer's share in consumer's rupee for the channels I was 96.00 percent, for channels II was 83.16 percent and channel III was 75.36 percent, Lack of storage facility, finally delay in cash payment, high commission charges and lack of support price when there is glut in market.

Key Words : Marketing surplus, waste management, banana growers, disposal pattens.

Marketing management of banana is an important activity along with production. Today even though our production is increasing but the quality is declining. Banana growers are not only lacking in adopting and implementing the improved production and market technologies but also modifying it as per their needs of their own conditions. There was a need to study the marketing management of banana with specific objectives such as to study marketing cost structure of banana and estimation of the factors influencing net price realized by the banana growers. It was studied that price spread in marketing of fruits and vegetables. They observed that for both fruits and vegetables commission agents selling to retailers through wholesaler and directly selling to retailers from two channels of marketing. (Jadhav *et al.*, 1997) .

There is a wide gap between use and requirement of fruits in general. Realizing the importance of horticultural crops, many farmers are directing their resources towards fruit crops**.** Gupta *et al*., (2001) in their study indicated that, banana is a traditional plant cultivated widely for mankind. After harvesting of the fruit, the various other parts of the plant (by products) are not effectively Utilised. It has been estimated that a residual biomass (Pseudo stem and leaves) of 13 to 20 tones dry 35 matter per hectare is available. They suggested that feeding of whole banana plants (stem and leaves) will meet the maintenance requirement of cattle. Patel (2004) concluded that banana leaves can be incorporated in the diet of kids. However, at present they are thrown out as waste on roadsides, or allowed to rot away in the fields or sometimes burnt in the field. In order to throw light on the efficacy of banana by-products to serve as a potential source of roughage to ruminants, a study was undertaken to evaluate the various by- products of banana as a source of feed to ruminants through studying the effect of the by-products of banana plant on rumen fermentation pattern.

Materials and Methods

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. A research programme requires knowledge of the region in which the investigation in being carried out. Understanding the general characteristics of the study area is very essential to carry out the research. In this sub-section background information about the study area is given. Uttar Pradesh state have consisted 75 districts. Among them Lucknow district contributed 7.4 per cent area in banana cultivation during 2017-18 and ranked first in area and production of banana. So, Lucknow district will be selected purposively for study. Banana was cultivated in 1959-hectare area and production was 48316 tons in Lucknow district during 2017-18.

Results and Discussion

Table-1 : shows that size of the farms group in numbers for Small, Medium, Large size farms were 65, 29, and 26 respondents respectively. Altogether 120 samples were selected for present study. Size of the land holding for small size farms were <1 ha followed by 1-2 ha for medium size farms and >2 ha for large size farms group. Total average area under Banana cultivation in small, medium and large size of farms group were 0.55 ha,

Table-1: Detail description of the area under Banana cultivation in different size of farms group.

Number of Respondent 120; SML= 65+ 29+ 26 =120; (Area in hectares)

SI. No	Particulars	Size of Farms Group			Sample Average
		Small	Medium	Large	
1	Size of Farms Group (in numbers)	65	29	26	120
2	Size of the land holding (in hectare)	<1	1-2	>2	-
3	Total Avg. area under Banana cultivation in study area	0.55	1.54	2.66	1.25
4	Number of Banana Suckers per hectare				
	Plant spacing (ft): 2.5				
	Row spacing (ft): 9.5	1500	1470	1440	1479.75

Table-2: Cost Concepts in Banana crop per hectare in different Size of Farms Group for second year.

Number of Respondents = 120; SML= 65+29+ 26 =120 ; (Value in Rs.)

SL.	Cost Concepts	Size of Farms Group			Sample Average
		Small	Medium	Large	
1	Cost Al	49676	48458	47826	48980.82
2	Cost A2	49676	48458	47826	49126.62
3	Cost B	61582	60334	59682	60868.73
4	Cost C	75832	71884	69432	73491.23

Table-3: Resource use and Cost of Cultivation of Banana crop per hectare in different Size of Farms Group for overall year. Number of Respondents=120; SML=65+29+26=120 ; (Value in Rs)

Sl.	Particulars	Size of farm groups			Sample Average
		Small	Medium	Large	
1	Hired Human Labour Charges	9933.33 (7.07)	10266.67(7.81)	10766.67(8.65)	**10194.44 (7.56)**
2	Bullock Labour Charges				
3	Machinery Labour Charges	4933.33(3.51)	4933.33(3.75)	4933.33(3.96)	**4933.33(3.66)**
4	Cost of Banana suckers	6750(4.80)	6300(4.79)	6000 . (4.82)	**6478.75(4.80)**
5	Cost of Farm Yard Manure	8566.67(6.10)	7966.67(6.06)	7733.33(6.21)	**8241.11(6.11)**
6	Cost of chemical Fertilizers	10216.67(7.28)	10166.67(7.73)	10416.67(8.36)	**10247.92(7.60)**
7	Cost of Plant Protection charges	6500.00(4.63)	6000.00(4.65)	5500.00(4.41)	**6162.50(4.57)**
8	Cost of fencing material	9000(6.41)	8000(6.08)	6000(4.82)	**8108.33(6.01)**
9	cost of irrigation charges	1833.33(1.30)	1600.00(1.21)	1400.00(1.12)	**1683.06(1.24)**
10	Cost of microjet/sprinkler	45000(32.06)	42000(31.97)	40000(32.13)	**43191.67(32.05)**
11	Interest on Working Capital @ 8%	8218.67(5.85)	7778.67(5.92)	7420.00(5.96)	**7939.29(5.89)**
12	Deprecation on Fixed Resources	3500.00(2,49)	3200.00(2.43)	2966.67(2.38)	**3311.94(2.45)**
13	Land Revenue Paid to Government	60(0.04)	60(0.04)	60(0.04)	**60.00(0.04)**
14	Interest on Fixed Capital @ 10%	1406.00(1.00)	1376.00(1.04)	1352.67(1.08)	**1387.19(1.02)**
15	Rental Value of Own Land	10500(7.48)	10500(7.81)	10500(8.43)	**10500.00(7.79)**
16	Imputed value of Family Labour	13916.67(9.91)	11216.67(8.53)	9416.67(7.56)	**12289.17(9.12)**
17	Total Cost of Cultivation	140334.67(100.00)	131364.67(100.00)	124466.00(100.00)	134728.71(100.00)

Table-4: Disposal Pattern Banana Crop Per hectare in different Size of Farms Group

Number of Respondents=120;. SML= 65+ 29+ 26=120; (Quantity in Quintals)

Sl	Particulars	Size of Farms Groups			Sample Average
		Small	Medium	Large	
1	Area under banana cultivation per ha	0.55	1.54	2.66	1.25
2	Total production of banana (q/Farms level)	153.96(100.00)	432.24(100.00)	748.12(100.00)	349.94(100.00)
3	Retain for banana (in quintal)				
	I Home Consumption	1.00(0.64)	2.25(0.52)	3.00(0.40)	1.73(0.49)
	II Kind Payment as wages	1.75;u3)	2.20(0.50)	2.50(0.33)	2.02(0.57)
	III Relatives & Relig. person	0.50(0.32)	0.75(0.17)	0.75(0.10)	0.61(0.17)
	IV Retain for Next years	—	—	—	—
4	Total retention for banana	3.25(2.11)	5.20(1-20)	6.25(0.83)	4.37(1.24)
5	Marketable surplus	150.71(97.88)	427.04(98.79)	741.87(99.16)	345.57(98.75)

1.54 ha, and 2.66 ha respectively. Among different farms size group total number of suckers per hectare was highest in small size farms (1500 plantings/ ha) as compare to medium size farms (1470 plantings/ ha) and large size farms (1440/ha) respectively. This makes the sample average for total plantings (1479.75/ha) in different farm size groups were respectively.

Table-2 reveals that cost concepts on different size of farms group per hectare. Cost Ai was highest in small size farms (Rs.49676/ha) followed by medium size farms (Rs.48458/ha) and lowest in large size farms (Rs. 47826/ha) respectively. Cost A2 in small, medium and large size of farms groups was Rs.49676/ha, Rs.48458 ha and Rs.47826/ha, respectively. Cost B was

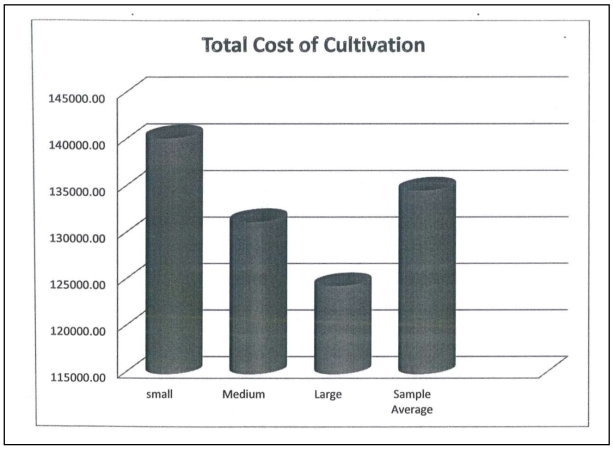

Fig.-3: Resource use and cost of cultivation of banana crop/ha in different size of farms group for overall year

highest in small size farms (Rs.61582/ha) as compared to medium size farms (Rs.60334/ha) and lowest in large size of farms (Rs.59682/ha) respectively. Cost C was highest in small size farms (Rs.75832/ha) and lowest in large size farms (Rs.69432/ha). Sample average for Cost A2 , Cost B and Cost C was Rs.49126.62/ha, Rs.60868.73/ha and Rs.73491.23/ha in different size of farms group.

The Table-3 and Fig.-1 shows that among different size of farms total cost incurred by the small size farms high (Rs. 140334.67/ha) as compared to medium and large size farms Rs. 13l364.67/ha and Rs. 124466/ha). Sample average for total cost was Rs. 134728.71/ha in different size of farms group.

The cost of human labour, fertilizers, and irrigation were the items of cost with major share in the variable costs, because most of the operations like harvesting, and weeding were human labour intensive operations. The distribution of pattern of operational cost under various inputs shows that cost of human labour was the highest in the large size farms (Rs.10766.67ha), compared to medium size farms (Rs. 10266.67/ha) and lowest on small size farms (Rs.9933.33/ha).

Table-4 shows that Disposal pattern of Banana. It shows that the area under Banana cultivation per hectare for small size farms was 0.55 ha, 1.54 ha for medium size farms and 2.66 ha large size of farms group, which constituted on sample average of 1.25 ha respectively. Total production of Banana in quintal per farm level was highest in large size farms (153.96quintal) as compared medium (432.24quintal) and was lowest in

small size farms (748.12quintal).

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