ORIGINAL RESEARCH PAPER

Commerce

KEY WORDS: Land Utilization pattern, agricultural activity and allocation of resources

LAND UTILISATION PATTERN AND AGRICULTURAL PRODUCTIVITY

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ABSTRACT

The reason behind every agricultural activity is to ensure a reasonable earning and to maintain the standard of living of the farmers. Now-a-days the cost of agricultural activities is increasing as compared to the return. Land utilization is one of the strategic factors which affect the earning generation of the farmers. Optimum land utilization should assist to reasonable rate of return from agricultural activities. The available Land must be properly apportioned to the different crop pattern to enhance the maximum return to the farmers. The total available land for cultivation to the farmers and available resources should be properly coordinated. Every resource has an alternative option to put into production activities. For these allocations of available resources skilled hands and mind were felt essential. Betelvine cultivators acquired this skill and knowledge by experiments and experience. Betelvine cultivators became perfect practitioners to collect returns. But due to changing environment they are facing different problems to allocation of land to the different crop patterns.

1. Introduction

Allocation of available resources should be made on the objectives of farming activities. Plantation training, disease management, maintenance of humidity in the betelvine garden, proper water management, harvesting and lowering was the main practices of betelvine cultivation. The cultivation of betelvine required a scientific and special skill and knowledge. Every activity of betelvine cultivation held its own importance. After harvesting of betel leaves as early as possible, it was necessary to send the leaves to the market for sale. Betel leaves were perishable in nature. Sometimes due to oversupply of betel leaves in the market, growers were unable to get remunerative price. During monsoon, i. e. June – September three was excess supply of betel leaves. The price in this season was generally low. In the month of January, lowering activities were carried out in various betel vine gardens. It affected the supply of leaves. During the January-April period, the price of the betel leaves was moving towards high. The price was always settled on the basis of the quality of leaves. The price depended on the supply and demand. However, during the festivals, marriage seasons, ceremonial celebrations, the demand for betel leaves was more. The sale of betel leaves was done either through auctions or through negotiations.

2. Review of Literature:

Irthayaraj, reported the soil for betelvine cultivation was red loams which was friable, rich in organic matter, which had good drainage and with good depth were also favored where the soil was coarse or stony, the area filled with suitable soil before planting.

Samiyappan and others reported the comparative study of three commercial crops viz. betelvine, banana and sugarcane. They observed the cost of cultivation to be the highest on betelvine. They also reported that the farm income per acre was 4 to 6 times higher than those of banana and sugarcane.

Gadre and Galgalikar carried out a survey in Anjangaon in Maharashtra to workout cost of cultivation per hectare in regard to betelvine. They reported that the total cost incurred on betelvine plantation was the maximum i. e. 20.11 % of the total cost. The input-output ratio was worked out which was 1.00: 2.10 which was fairly high. They further observed that family and higher labour taken together account for 35.19 % of the total cost of betelvine cultivation. This was the labour intensive occupation.

3. Research Methodology

3.1 Scope of the study

- Does the land utilization pattern helpful to the betelvine farmers in the selected area.
- Does the betel vine production offer economic stability to the betelvine farmers.
- Is the pattern of land utilization is economically feasible.
- Suggest remedial measures to the problems that facing to the betelvine farmers.

3.2 Hypotheses of the Study

- The pattern of land utilization pattern is varied in different respondents.
- Experienced knowledge assist to allocation of the available agricultural resources.

3.3 Research Design

3.3.1Selection of Area

For the presents study Miraj and Walwa tehsils were selected.

3.3.2Selection of Villages

Ten villages were selected with specific purpose for the present study.

3.3.3Selection of Samples

Total sample in two tahsils amounted to 60 betel vine cultivators. The total samples from two tahsils were further classified that 20 cultivators from each of the small size, medium size and large size of groups.

4. Results and Discussion

4.1 Land Holdings

Total land-holdings of respondents were grouped according to the size of holdings. Total land-holding by 60 respondents was 404 acres. The average holdings of all respondents were 6.73 acres.

Small-size group held 82 acres of total land, average land holdings of small-size group was 4.10 acres. Medium size group held 137 acres and average size of that group held 6.85 acres. A large-size group held 185 acres an average was 9.25 acres. An average holding of large-size group was as high as compared to small and medium-size groups.

4.2 Area under Betelvine Cultivation

Size-group wise area of betelvine cultivation of respondents was given as follows.

Table 1 Classification of Respondents by Area under Betelvine Cultivation

Sr. No.	Size of Group	Betelvine Area (In Acres)	% to Total
1	Small	15	16.13
2	Medium	29	31.18
3	Large	49	52.69
Total		**93**	**100**

The above Table 1 depicted area under betelvine cultivation of respondents. 60 respondents held 93 acres out of which 15 acres were held by small-size group forming 16.13 per cent of total area

under betelvine cultivation of the respondents. Medium-size group held 29 acres at 31.18 per cent of betelvine area. Large-size group held 49 acres at 52.69 per cent of betelvine cultivation. In comparison to the average-holding of all respondents, the average holding of large size group was high.

4.3 Land Utilization Pattern

Size-group wise areas under different crops of the respondents were classified in Table 2.

Table 2 Land Utilization of Different Groups of Different Crops

(Area in Acres)

Sr. No.	Type of Crop	Size of Groups			Total
		Small	Medium	Large	
1	Betelvine	15 (18.29)	29 (21.16)	49 (26.49)	93 (23.02)
2	Grapes	NA (NA)	07 (5.11)	17 (9.19)	24 (5.94)
3	Sugarcane	09 (10.98)	14 (10.22)	26 (14.05)	49 (12.13)
4	Food grains	51 (65.19)	76 (55.47)	86 (46.49)	213 (52.72)
5	Oilseeds	04 (4.88)	08 (5.85)	05 (2.70)	17 (4.21)
6	Others (Cotton, Turmeric, etc.)	03 (3.66)	03 (2.19)	02 (1.08)	08 (1.98)
Gross Cropped Area		**82 (100)**	**137 (100)**	**185 (100)**	**404 (100)**

Table 2 presented the land utilization for different crops by different groups. Total land area of 60 respondents was 404 acres. Out of which 82 acres were held by small-size group, 137 acres were held by medium-size group and 185 acres were held by large-size group.

Small-size group held 82 acres out of which 15 acres were used for betelvine cultivation forming 18.29 per cent. 9 acres about 10.98 per cent were used for sugarcane, 51 acres at 62.19 per cent were used for food grains, 4 acres at 4.88 per cent were used for growing oil seeds and 3 acres at 3.66 per cent were used for other crops on rotation.

Medium-size group of respondents held 137 acres out of which 29 acres, forming 21.16 per cent were used for the cultivation of betelvine crop 07 acres (5.11 per cent) were used for grapes cultivation, 14 acres (10.22 per cent) were used for grapes cultivation; 14 acres (10.22 per cent) were used for sugarcane. 86 acres (55.47 per cent) were used for food grains, 8 acres (5.85 per cent) were used for oil seeds and 3 acres (2.19 per cent) were used for other crops.

Large-size group held 185 acres out of which 49 acres (26.49 per cent) were used for betelvine cultivation, 17 acres (9.19 per cent) were used for grapes 26 acres (14.05 per cent) for sugarcane 86 acres (46.49 per cent) for food grains, 5 acres)(2.70 per cent) for oil seed and 2 acres (1.08 per cent) for other crops.

All these three size of groups gave more area for food grains. Small size group preserved their area for food grains to the extent of 62.19 per cent, medium-size group at 55.47 per cent and large-size group at 46.49 per cent. It revealed that small-size group preserved more area for growing food grains than medium-size group and large-size group.

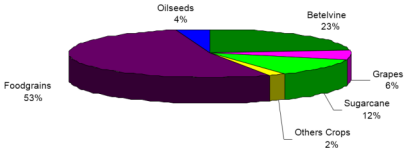

Fig. 1 : Cropping Pattern of Respondents

4.4 Ownership of Land

An average life or duration for survival of betelvine crop was estimated for 8 years. If once betelvine were planted, the income from them was assured for average 8 years. Ownership of land was more preferred for this long-term crop. All respondents were the owners of their lands. None of them used any area on tenancy and therefore the question of paying rent did not arise.

5. Conclusions and Suggestions:

5.1 Conclusions

1. The average size of holding of respondents was 6.73 acres. Total holding of small-size group was 82 acres and average size holding was 4.10 acres. Total holding of medium-size group was 137 acres where as average holding was 6.85 acres. Large size group holding was 185 acres and average holding was 9.25 acres.
2. Large-size group held maximum acreage (52.69 per cent) under betelvine cultivation as compared to medium-size group (31.18 per cent) and small-size group (16.13 per cent) held respectively.
3. The cropping pattern of the respondents was dominated by food grains holding 52.22 per cent of the gross cropped area. The share of betelvine was 23.02 per cent, grapes 5.94 per cent, sugarcane 12.13 per cent, oil-seeds 4.21 per cent and other crops 1.98 per cent.
4. All the respondents cultivated betelvine on their owned land. 71.67 per cent of the total respondents preferred to cultivate betelvine at two side plantation in the bed and remaining respondents experimented plantation at one side of the bed. 4,800 seed vines were required for the plantation at two side of the bed and 3,500 seed vines were sufficient for one side plantation at the bed.
5. More than 80 per cent of the respondents were motivated to cultivate betelvine due to regular income and assured income till the life of the garden, cash crop, employment generation, high input and output ratio.

5.2 Suggestions

1. Large and medium size groups face the problem of shortage of water during the end of summer season. To overcome this problem, cultivators are requiring to dig a farm pond which cover a best quality of plastic paper or cement concrete having a capacity to store of one crore to two crore of liters water. During rainy and winter seasons it is necessary to fill the farm pond with water. Such stored water should be used during the summer seasons by drip irrigation or surface irrigation as when required.
2. Insurance coverage to betelvine crop should be provided
3. Instead of using full live support for training and tying of betelvines, 50 per cent of live support and 50per cent dead support should be used. This will help some extent to control nutrients consumption by live support and will help to control betelvine from direct rays of sun and it may help also for providing a shade.

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