



## Management of Harvesting Skills of Betel Leaves

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### ABSTRACT

In the paper attempt was made to understand the special skills applied in harvesting of betel leaves. Harvesting of betel leaves is labour intensive activity. Each betelvine was picked at six to ten times in an agriculture year. Pickings were so arranged that all vines were not to be picked at the same time. The betel leaves were packed according to size, colour, texture and maturity on which the chewing quality depended. Grading was done in different ways in different areas. Grading of betel leaves was dependent upon their position on the vine, their maturity and place of production. Harvesting of betel leaves was done throughout the year. Expert hands were needed for harvesting. The leaves which were sufficiently ripe were plucked along with a petiole about one cm. length. Leaves were plucked by hand and by artificial nails kept at the thumbs.

### KEYWORDS

Harvesting, special skills, fapada, kalli and hakkal leaves

### 1. Introduction

Leaves of main stem were called as fapada. The leaves that were born on branches of vine were called as kalli. The leaves that had lower parts of vine and one betelvine coils were known as hakkal or Gabal. But hakkal or Gabal did not fetch better price. Fapada leaves were older, thick, raped and dark green which fetched high price as compared to kalli leaves. In every day, approximately, a single labour was able to cut one or two dags (12,000 to 24,000 leaves). Three types of pickings were practiced. Harvesting started after three to four months after plantations and one to one half months after lowering. During rainy season harvesting went continuously at fifteen days intervals. Harvesting was done according to market conditions and the financial needs of cultivators. The leaves were assembled from the branches called as *Hatvan* which were considered as the best for chewable. The betel leaves, those at the nodes on the main stem, were called as *Angwan* which were also called as *fapada*. Those betel leaves, kept on vine to mature for a long time, were called as *Junwan*. The leaves which were gathered from lower part of the vine were called as *Hakkal* and they were mostly consumed locally. The leaves were assembled from the branches called as *Hatvan* which were considered as the best for chewable. The betel leaves, those at the nodes on the main stem, were called as *Angwan* which were also called as *fapada*. Those betel leaves, kept on vine to mature for a long time, were called as *Junwan*. The leaves which were gathered from lower part of the vine were called as *Hakkal* and they were mostly consumed locally. Harvesting of leaves was done three to four months after new plantations and subsequently of three to four weeks intervals. The leaves that were born on the branches were called as *kalli* leaves. Harvesting of leaves was done three to four months after new plantations and subsequently of three to four weeks intervals. The leaves that were born on the branches were called as *kalli* leaves. Betelvine provides livelihood to millions of people of India in the cultivation and marketing. Among all countries, India was noted to produce a quality betelvine in making comfortable life of chewers. Betelvine was extensively cultivated in many states of India with significant nativity. If favorable conditions were not available, betelvine could not grow with appreciations. As was the case with other crops, climate and other environmental conditions considerably influenced the growth of betelvine. But, it was difficult to specify an ideal of the average climate for this plant. In Maharashtra, harvesting six month after planting or two months after first lowering with skilled labour using a small iron blade attached to thumb. Plucking of betel leaves required on expert hand with the help of an artificial thumb nail made by iron. The leaves were cut along with the stalk about on cm. length. Betelvine leaves increased from the second year up to fifth years, from fifth year,

the yield was reduced year after year. The total survival of betelvine garden ranged up to eight to ten years. In all states of India betelvine was grown and Karnataka was the prominent state in providing with appreciable quality. Gujarat and Rajasthan did not have more hectors under betelvine even though the maximum requirements were in those states. Orissa and Tamil Nadu acquired their sufficiency to meet their own needs. Sangli district held the best environments for commercial betelvine culture. The tropical rain forest provided cool shade, considerable humidity and adequate supply of moisture in the soil. Moderate and even temperature through the year was most favorable. Such conditions were favorably available in areas of Miraj and Walwa tehsil of Sangli district. Cultivators of Sangli district acquainted with the required factors for the smooth growth of betelvine leaves. Although, betelvines favored tropical humidity, Sangli district cultivators grew in several places where irrigation facilities were made available.

### 2. Review of Literature

#### 2.1 Harvesting of Betel Leaves

Das and Banarjee (1984) estimated that in West Bengal, betel leaves were yielded 2.4 million leaves per hectare annually from second year onwards, whereas from Meetha leaves the corresponding yield was 0.05 and 0.58 million leaves respectively.

Singh and others (1988) suggested that the leaves matured after six to eight weeks. Such leaves become ready for harvest.

#### 2.2 Grading of Leaves

**Chaugule and others**, stated the grading in some parts of Deccan that the new betel leaves were called as *Navati*, the second plucking of leaves as *Parati* and third plucking was known as *Terti*.

#### 2.3 Packing of Betelvine Leaves

Iruthayaraj, Malelu, Chowdhari, (1945), They explained the packing practices of betel leaves. The plucked leaves after washing cleaning and counting were arrange in the basket. The unit of sale in chinglepur district in one kaval 100 leaves was contained. In Coimbatore, one *kavali* contained 200 leaves. The unit of packing was one *Palagai* containing 2000 leaves.

### 3. Research Methodology

#### 3.1 Objectives of the study

- To study the management of harvesting of betel leaves in the selected area.
- Enlighten the harvesting skills applied in the betel vine cultivation.
- Suggest remedial measures to overcome the problems in

harvesting practices in betel vine leaves.

### 3.2 Hypotheses of the Study

- Harvesting of betel leaves is labour intensive activity expert hands were needed for harvesting.
- The betel leaves were harvested according to size, colour, texture and maturity of betel leaves on which the chewing quality of pan depended.
- Price fetching capacity of betel leaves depends on appropriate harvesting system.

### 3.3 Research Design

#### 3.3.1 Selection of Area

For the presents study Miraj and Walwa tehsils were selected showed increasing trend for more cultivation of betel vine and therefore the researcher selected these two tahsils for the intensive study.

#### 3.3.2 Selection of Villages

10 villages were selected with specific purpose. The sampling techniques were adopted for the investigation of two stage sampling. At the first stage, village as the primary unit and the second was in regard to betel vine cultivators.

#### 3.3.3 Selection of Samples

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

#### 3.3.4 Scope of the Study

The present research study was applicable to only Sangli district in which Miraj and Walwa tehsils were selected.

## 4. Results and Discussion

### 4.1 Harvesting – Plucking of Betel Leaves

Betelvine crop was identified as a perennial crop and therefore all necessary activities were discharged throughout the year. On maturity, plucking of betel leaves was done in time and therefore all respondents plucked on the dues. All plucked leaves were arranged systematically in dags, dappa or Karandi. Market conditions and ruling prices governed the plucking of betel leaves.

**Table 1**  
**Number of Harvesting of Betel Leaves by Respondents (Per Year)**

| Sr. No.      | No. of Harvested | No. of Respondents | % to Total |
|--------------|------------------|--------------------|------------|
| 1            | 0-7              | 09                 | 15.00      |
| 2            | 8-9              | 19                 | 31.67      |
| 3            | 10-11            | 29                 | 48.33      |
| 4            | 12 and above     | 03                 | 5.00       |
| <b>Total</b> |                  | <b>60</b>          | <b>100</b> |

Source: Primary data

Table -1 showed the number of harvesting 9 respondents, 15 per cent of total respondent's harvested betelvine leaves 7 times during the year. Due to non-availability of labourers for plucking and low price in the market limited to pluck leaves for only 7 times in a year. 19 respondents, 31.67 per cent, plucked maximum 9 times in a year. 29 respondents, 48.33 per cent, harvested maximum 11 times in a year. But only 3 respondents, 5 per cent, plucked leaves more than 13 times in a year. Quality leaves fetched better price in the market maximum leaves were obtained due to the constant necessary operations done over the gardens. The researcher found that in time supply of water and manures produced the best quality of betel leaves and such leaves fetched the best price.

### 4.2 Wage Rate of Harvesting

Plucking was an important activity and done from the skilled labours. The wages of plucking labours were made on the basis of job work-dags harvested per day and not on daily wage basis.

**Table 2**

### Classification of Respondents According to Payment of Wages (Per dag)

| Sr. No.      | Wage Rate in Rs. | No. of Respondents | % to Total |
|--------------|------------------|--------------------|------------|
| 1            | 0-125            | 05                 | 8.33       |
| 2            | 125-150          | 24                 | 40.00      |
| 3            | 150-200          | 28                 | 46.67      |
| 4            | 200 and above    | 03                 | 5.00       |
| <b>Total</b> |                  | <b>60</b>          | <b>100</b> |

Source: Primary data

Table 2 showed the payment of wage rate per *dag* harvested 5 respondents, 8.33 per cent, paid maximum wages up to Rs. 125 per *dag* harvested. 24 respondents, 40 per cent, paid maximum Rs. 150 per *dag* while 28 respondents, 46.67 per cent, paid maximum Rs. 200 per *dag* and only five percent respondent paid wages above Rs. 200 per *dag*. Laborers received advanced from respondents. Labours who was taken advance receives comparatively lower wages from the respondents.

## 5. Conclusions and Suggestions:

### 5.1 Conclusions

1. As compared to total variable cost, plucking cost accounted to 44.25 per cent followed by training and tying of betelvine accounted to 32 per cent of total labour cost.
2. After spraying of pesticides and fungicides none of the respondents stopped plucking of betelvine leaves for some days.

### 5.2 Suggestions

1. Effective control on labour cost is necessary. It was very high proportion in the total cost of betelvine cultivation.
2. *Fapada* leaves fetch high price as compared to *kalli* and *hakkal* leaves. Betelvine cultivators are required to give more attention to produce maximum quantity with improved quality and market oriented *fapada* leaves.
3. There should be necessary to take proper care for not to pluck betel leaves within seven days when fungicides and pesticides were spread out.

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