



Challenging Cultivation Practices for Chewable Pan

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ABSTRACT

In the present article attempt was made to analyse the challenging cultivation practices of chewable pan. Cultivation of chewable pan requires well experienced knowledge. Quality of betel leave depends on the cultivation practices applied by the farmers. Indians, both men and women, were famous in chewing betelvine leaves, which were used for digestive and effective motivations. Men and women obtained enough of strength and enthusiasm to work more by chewing betelvine leaves. Betelvine leaves were under cultivation for many years. Betelvine cultivation became a popular commercial crop by employing experts and enthusiastic workers. Cultivators continued their original method of cultivation therefore their mode become code of production. The practices of cultivation varied in different parts of India. The cultivation practices were old and traditional and beset with many problems. Construction and conservative, propagation, training the betel vine and lowering of vines were specialized operations involving employing skilled and experienced labour force.

KEYWORDS

Challenging Practices, Cultivation, Chewable Pan

1. Introduction

Maharashtra was the noted state for the production and consumption of betelvine leaves. In Maharashtra betelvine were grown in clay and sandy loam. In Western Maharashtra area under betelvine cultivation was more as compared to Vidharba and Marathwada. Sangli, Satara and Thane were the main districts of betelvine cultivation. In Maharashtra, betelvine was cultivated on bed system with live supports. In some areas of Ratnagiri and Raigad districts betelvine were grew with areca nut and coconut plantations. But areas under these types of cultivation were very low. The main variety of betelvine cultivated in Maharashtra was Kaposi. In some parts of Cithara region 'Ramtek Bangla' were also cultivated. In Sangli district, Miraj and Walva tahsils were only noted for growing betelvine leaves. The plantations of betelvine were done usually during June and July. The main marketing centers of betel leaves were Mumbai, Jodhpur, Chaplin, Fonda, Pandharpur, Shirgonda, Khed, Nasik and Akola. Sangli district was well-known in growing betelvine due to the hereditary skill and knack. Cultivators employed experienced labour force to exercise culture for the better yield. Different parts of Sangli district grew betelvine. However, cultivators in Sangli district were too much enthusiastic in obtaining, maintaining and retaining originality of growing betelvine leaves.

2. Review of Literature

2.1 Propagation

Mahmud (1950) observed that the top three cuttings from the upper part of vine recorded a high rate of growth as well as gave higher yield than other cuttings. Cuttings from the base portion of vine with 5-12 nodes each, took a long period to root.

Yajna Narayan Aiyer and other, (1966-67), reported that the plantations of betelvine cuttings took from healthy vines at least two years old. Each cutting contained 3 to 5 nodes and was planted in such a manner that two nodes were buried in the soil and two or more nodes were above the ground. In some places, growers raised a nursery of root cuttings and then transferred them to their permanent places.

2.2 Spacing

Balsubrammanyam (1984) observed that a wide ranging with systematic spacing for Desawari vines, inter-row spacing of 30 x 30 cm. gave the maximum yield of leaves with better quality. The number of seed plants used varied considerably, depending upon the type of lay-out, spacing length of cuttings, supports etc.

2.3 Plantation Seasons

Chaugule, Rao and Madharachari, they reported that planting of betelvine in Kerala, Karnataka and in Assam started immediately after onset of monsoon in May-June. In Madras, planting was done in June-July. In Maharashtra, Andhara Pradesh planting was delayed upto August-September.

2.4 Methods of Betelvine Cultivation

Chandra, Pitam (1990) studied the three methods of growing betelvine in India. In the first method betelvine was grown with mixed plantation such as arc nut, jack fruit, mango and coconut where no further shade was required. In the second method, betelvine was grown together with fast growing plants such as Shevari (*Sesbania aegyptiaca* Poir), Pangara (*Erythrina indica* Lam.), Drumstick (*Moringa Oieifera* Lam.) and Bakan (*Melia Azedarach* Linn) were planted. In the third method, artificial shades were created which known as Boroj or Bareja.

3. Research Methodology

3.1 Objectives of the study

- To study the cultivation practices for betelvine in the selected area.
- To understand the specialty of geographical indications of betelvine cultivation in the selected area.
- Suggest remedial measures to overcome the problems in cultivation practices in betelvine leaves.

3.2 Hypotheses of the Study

- The practices of cultivation of betelvine varied in different parts of India.
- Quality of betel leave depends on the cultivation practices applied by the farmers.
- Sangli district was well-known in growing betelvine due to the hereditary skill and knack.

3.3 Research Design

3.3.1 Selection of Area

For the presents study Miraj and Walva tehsils were selected.

3.3.2 Selection of Villages

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

3.3.3 Selection 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 selected.

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 Soil for Betelvine Cultivation

Exceptionally excellent drained, fertile soil, rich in humus were the best elements of soil with sufficient moisture holding capacity, sufficient drainage arrangements and lying on elevated sloppy lands formed an ideal soil for betelvine plantation. Betelvine leaf was grown on medium light and sandy loam soils which Miraj and Walwa tahsils possessed. The proper soil for betelvine cultivation was clay loam, rich in humus, rich in organic matter and good drainage. Red loams both light and heavy with good depth were also scientifically justified. Slope land was treated as an ideal site. Totally, favorable soil guards and guides the proper growth of the betelvine.

4.2 Preparation of land

In order to protect betelvine from plant born diseases, preparation of land was treated as the most features. Betelvine crop required proper maintenance of moisture and humidity. The selected land was to be ploughed and harrowed twice to remove all pesticides and insecticides. Land should be made smooth for the easy growth of betelvine plant. Nearly 15 to 25 tonnes of farm yard manure was applied per acres. Sheep penning was also applied to increase the potentiality of the soil to get more yield per acre.

4.3 Layout of Betelvine Garden

Betelvine cultivation required elaborate preliminary preparations. Betelvine was a climber crop and therefore required support for its smooth growth. The land was leveled and marked out. Total area was divided into four equal quarters by one meter wide paths called as "Chamans" running across the land at right angles to one another. These paths were used for carrying out the operations of cultivation. Each quarter was known as "Chowk". It has five to six sub-groups called as "Chiras" containing 18 beds each which was measured roughly one Guntha or one "Are". Each bed was three to three and half meters long and one to one and half meters wide. The seeds of live supported sowing both sides of a bed keeping a distance of eighteen inches. The main water channels were opened on the upper-side of the field. In every "chowk" sub-cannels were opened.

4.4 Methods of Plantation

Betelvine was planted by taking cuttings from healthy vines which were at least two years old. Each cutting contained five to six nodes and was planted. Three nodes were buried in the soil and two or more nodes were to be kept above the ground pointing towards support. Only the top first cutting was used for plantations. The cuttings were dipped into Bordeaux mixture of 0.5 percent and 500 ppm streptocline solution for thirty minutes before planting. The beds were first irrigated and kept overnight. Single node cuttings were planted in small trenches and the lump of soil was generally pressed. Some farmers used double nodes cuttings to increase number of villages in the next year after lowering. Farmers planted vines cuttings on one side of the bed. Shevari plants grew quickly but their life-span was short, limited to 2 to 3 years only. Pangra and drumstick plants life span was near about eight to ten years.

4.5 Planting Seasons

The plantation of betelvine was dependent on favorable temperature and rainfall. Cultivators of Sangli district planted betelvine during June and July. Supporting plant seeds were also planted before the plantation of betelvine. If supporting plant was healthy, it protected the betelvine leaves favorable.

4.6 Spacing

The spacing between inter-vine and inter-row was considered as

important. The production of betelvine was effective based on spacing. The inter-vine spacing was usually 40-45 inches where as inter row spacing was about 1.5 meters.

4.7 Inter-Cropping

In betelvine gardens, banana plants were planted for obtaining the fiber as packing materials. Some farmers grew papaya around the garden. Drum stick gave additional income to betelvine growers. This was used as live support to the betelvine. Pumpkins were grown around the garden to provide an additional shelter and a source of income.

4.8 Light and shade

Fast growing trees were usually planted in betelvine gardens for marinating light and shade. At high light level, growth of leaves was adversely affected whereas at low light levels, the vine produced laterals with rather long inter-nodes. Betelvine required diffused sunlight being sensitive plant. Betelvine required more light during winter than in other seasons.

4.9 Protection from Cold and Hot Winds

Cold and hot winds affected on quality, freshness and production of betel leaves. The mulberry plantation was usually selected on the periphery of the betelvine garden. Thatched material, known as Tatti in local language, was generally popular in providing protection to leaves from cold and hot winds. The blow of wind affected the rate of evaporation and was therefore one of the primary factors to control weather conditions. Hot and dry wind reduced the humidity in the betelvine garden

5. Conclusions and Suggestions

5.1 Conclusions

1. Large-size group preferred more area for betelvine cultivation. Out of the total grossed cropped area of large-size group, 26.49 per cent under betelvine cultivation followed by medium-size of group at 21.16 per cent and than 18.29 per cent of small-size of group.
2. In betelvine cultivation internal and external environmental factors played a major role. Internal and external environmental factors created opportunities and threat to the betelvine cultivators.
3. Betelvine cultivation required special skills, knowledge and careful attitude. Daily observation and supervision of betelvine garden was felt a most essential element regarding humidity control, harvesting, training, pest control, etc.

5.2 Suggestions

1. Betelvine cultivators should require a proper attention to humidity control and sound fertility of soil management. Size of leaves, quality of leaves and yields can be designed on such factors.
2. Apply drip irrigation system in rainy and winter seasons to supply water as required.
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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