

Cultivation and Marketing of Tuberose (Lily) Flowers by the Rural Poor: An Approach of Swot Analysis

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ABSTRACT

In India, cultivation of flowers is practiced from many centuries. In concern of steady increase in demand for flowers, floriculture has become one of the important activities in horticulture. Tuberose occupies a very special position among the ornamental plants for its beauty, elegance and sweet fragrance. Agro-economic data with regard to tuberose cultivation is important for further expansion of cultivation. Hence, the purpose of the present study is to locate the strengths, weaknesses, opportunities and threats (SWOT analysis) in the cultivation and marketing of tuberose in Madanur village in Prakasam district of Andhra Pradesh. The result shows that cultivation and marketing of tuberose generates employment and income for the rural poor.

Highlights

- It is noticed that the strengths and opportunities outweigh the weaknesses and threats in cultivation and marketing of tuberose.
- Commercial tuberose cultivation was found to be the employment and income generating activity for the rural poor.

Keywords: SWOT analysis, tuberose, Lily cultivation

Horticulture contributes about 30% of GDP in agriculture using only 17% of the land area. Government of Andhra Pradesh has identified horticulture as a priority sector (horticulture.ap.nic.in). As per area and production statistics of National Horticulture Board (2015), the total area under the cultivation and production of loose flowers is estimated as 278 '000 Ha and 1656 '000MT respectively. Andhra Pradesh produces about 8% of the total production of loose flowers in the country. Major loose flowers which are harvested in Andhra Pradesh include rose, crossandra, jasmine, marigold, chrysanthemum and tuberose (lily). Tuberose (*Polianthes tuberosa* L.) is one of the most important ornamental flowers. It is popularly known as Rajanigandha and belongs to the family Amaryllidaceae. It is a half-hardy, perennial and bulbous plant. It is commercially cultivated as loose

and cut flower crop due to pleasant fragrance and its long vase-life. It is adaptable to varied climate and soil. It has long bright green leaves clustered at the base of the plant and smaller clasping leaves along the stem. Epiphyllous adhesion of stamens is seen in the flower. Tuberose blooms throughout the year and grows in elongated spikes from 35-45cm long with star shaped waxy white flowers. Tuberose is popular for its strong fragrance and its essential oil is an important component of high grade perfumes. Flowers of the Single type (single row of perianth) are commonly used for extraction of essential oil, making garlands, home decoration and are adorned on hair by women.

Tuberose is grown commercially in many countries including India, Kenya, Mexico, France, Italy, South Africa, Taiwan, USA, Egypt and China. In India, Karnataka, Andhra Pradesh, Tamil Nadu,



Maharashtra and West Bengal grow tuberose commercially (Agrifarmingbiz). Some studies reported the economic analysis of agricultural crops (Hamsa and Murthy 2017; Pushpa *et al.* 2017). Though a few studies were reported in literature regarding SWOT analysis on floriculture industry in India (Ruchira Shukla and Srivastava 2010; Balamurugan and Tamizhjothi 2013; Srinivasa Rao *et al.* 2014), there is no specific study with concern to SWOT analysis on tuberose cultivation and marketing in Prakasam district of Andhra Pradesh. Hence, the present study was conducted with an objective to assess the strengths and weaknesses, opportunities and threats for commercial tuberose cultivation and marketing in Madanur village of Andhra Pradesh using SWOT analysis.

METHODOLOGY

Madanur village is known for its cultivation and marketing of tuberose. There are about 20 farms of tuberose. Therefore it is selected for the study. Mr. Rathikonda Balakotaiah, the cultivator of tuberose is chosen for the study because of his 25 years of experience in cultivating and marketing tuberose. He guides other cultivators as well. The information is collected with the help of a structured questionnaire. The collected data are analyzed and presented.

Study site

Madanur or Mannur is a coastal village. It is located in Kothapatnam mandal of Prakasam district. It is 25km away from Ongole, the headquarters of Prakasam district. Ongole is well connected by road and rail with other parts of Andhra Pradesh and India. Madanur is in between Buckingham canal and Bay of Bengal. It has a population of about seven thousand. Bus transport is available from Ongole, Kandukur of Prakasam district and Kavali in Nellore district. Auto transport is also available. Madanur is basically an agricultural village. It is known for sea fish catch, flower and vegetable gardens. Ponds and bore wells are the source of water supply. The market areas for Madanur flowers are Ongole, Singarayakonda, Kandukur in Prakasam district and Kavali in Nellore district.

About the sample cultivator

The cultivator Rathikonda Balakotaiah is the owner

of 5 acres of land in vagarthy (land between the village and the sea). The land is of sandy soil. He has white ration card. He is a member of a small family (2 members). He has thatched house and is the first entrepreneur in the cultivation of tuberose in his village. He has been cultivating tuberose in 0.5 acres of land. His initial investment in the cultivation of tuberose is ₹ 25,000. He is a member of the eco-tourism of Government of Andhra Pradesh. He attends all the meetings of horticulture department and supplies seedlings to the new farmers.

SWOT Analysis

SWOT is the acronym for strengths, weaknesses, opportunities and threats. Strengths, weaknesses can be identified by analyzing the internal environment; opportunities and threats can be identified by analyzing the external environment.

Strength is an inherent capacity. A weakness is an inherent limitation or constraint. An opportunity is a favourable condition and threat is an unfavourable condition in the external environment.

SWOT analysis is helpful in the formulation of an effective strategy that can capitalize on the opportunities and neutralize the threats. Identification of opportunities and threats in the environment and strengths and weaknesses of the farm is the cornerstone of the farm policy formulation. These are the factors which determine the course of action to ensure the survival and profitability of the farm.

RESULTS

Strengths of cultivation and marketing

- ◆ Suitable agro climatic conditions. Sandy soil in Madanur is suitable for tuberose cultivation.
- ◆ Water is adequate. The source of water is doruvu (pond). Electric motor is used for regular supply of water to the farm.
- ◆ Availability of labour. Cultivation of tuberose is labour intensive since plants require care and attention.
- ◆ Cultivation and marketing of tuberose generates self-employment and wage employment. On an average it generates self-employment for two persons and wage employment for one person per half an acre per day.



- ♦ There are no problems in getting inputs such as capital, fertilizers, bulbs or seedlings and farm yard manure. Farm yard manure is used at the initial stage. DAP, potash, urea, super, 14-30-14 complex fertilizers of Grow more company is in use.
- ♦ Viable transport. The cultivator collects the flowers and packs in covers and sends them to Ongole market by bus or auto transport.
- ♦ Price is reasonable and profitable. On an average the yield of flowers per day is 15 kgs per 0.5 acre. The selling price is ₹ 50 per kg. The rate is fixed in all seasons. Tuberose generate an income of ₹ 750 per day per half an acre of land.

Weaknesses of cultivation and marketing

- ♦ Power cut. Regular supply of power is essential.
- ♦ At present, polythene covers are used for packing flowers. They are to be replaced by cartons.
- ♦ Labour wage rates are high. The wage rate is ₹ 400 per person per day.
- ♦ Cost of cultivation is becoming high because of the prices of fertilizers, wage rates and interest rates.
- ♦ More personal attention is required.
- ♦ Daily watering is required because of the nature of the soil.

Opportunities of cultivation and marketing

- ♦ Supply is less than demand for tuberose. There is a possibility for extensive cultivation of tuberose.
- ♦ Government is giving subsidy on the purchase of bulbs.
- ♦ Banks are giving loans at lower rate of interest
- ♦ There is a possibility for extension of market area from Ongole to nearby markets in Singarayakonda, Kandukuru and Kavali.
- ♦ Government of Andhra Pradesh is supplying electricity at free of cost.
- ♦ The horticulture wing of government of A.P. is guiding and supervising the cultivation and marketing of tuberose in Madanur village.

Threats of cultivation and marketing

- ♦ There is an increasing competition from the cultivation of other flowers in Madanur.
- ♦ Madanur is a cyclone prone area. Cyclone damages the farm. It takes two months for recovery.
- ♦ Productivity of tuberose may be affected by high temperature in summer season. The output may fall even to a low level of 5kgs per 0.5 acre per day.

CONCLUSION

The problem of unemployment prevails in India. The rate of job generation has been much less than the rate of output growth or GDP- a situation popularly referred to as jobless growth. The reason for this state is the gradual induction of modern technology in productive process near stagnant conditions in agriculture. Growth is to be socially relevant and meaningful and must create and provide jobs on an expanding scale. Unemployment denotes wastage of human resources. It causes social tensions.

In our study it is noticed that the strengths outweigh the weaknesses. The opportunities outweigh the threats. India needs more number of job creators and not job seekers. To generate self-employment, the cultivation of tuberose may be encouraged by the government with subsidies, supervision, guidance and training in skills required for working in gardens of tuberose. This activity generates income to the rural poor.

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