



## **Analysis of constraints faced by commercial floriculture nursery owners in Kadiyam of Andhra Pradesh – Suggestions to overcome them**

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### **ABSTRACT**

*Identification of key constraints and execution of suitable suggestions given by nursery owners is indispensable for the effective running of a nursery business. In this context, the data was collected from a sample of 120 nursery owners of Kadiyam in Andhra Pradesh to analyze the various constraints faced by nursery owners and also to elicit out the suitable suggestions given by them to overcome their constraints. Garrett Ranking technique was used to rank the constraints faced by the nursery owners whereas the suggestions offered to overcome their constraints were ranked on the basis of frequency and percentage of nursery owners who reported respective suggestions. Among the major constraints faced by nursery owners, scarcity of labour was the major constraint followed by unavailability of suitable soil, attack of pests and diseases, competition from new nurseries, marketing problems, lack of technical guidance, high labour wages and irregular supply of electricity. The major suggestions given by them to overcome their constraints were improved practices of mechanization followed by provision of appropriate potting mixture, proper market facilities and better price of the plants, timely technical advice, provision of demand-driven knowledge about scientific cultivation practices in floriculture, regulation of nurseries, organisation of floriculture exhibitions and trade shows, periodical skill orientated training, provision of subsidies and finally establishment of communal solar and biogas plants.*

*Keywords: nursery owners, constraints, suggestions*

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### **INTRODUCTION**

Kadiyam nurseries located in the coastal area under Kadiyam mandal of East Godavari district with more than 100 years of antiquity comprising 1555 hectares of land with about 1500 floriculture nurseries with an annual turnover of more than 200 crores are at sky high and a brand value of floriculture nursery industry in Andhra Pradesh. Kadiyam nurseries were a combination of small, medium and large nurseries comprising of wide variety of indoor plants, outdoor plants, seasonal plants, ornamentals plants, medicinal plants, fruit crops etc. ranging from 5 rupee to thousands of rupees. Apart from the production of plants congenial to its local situation, they also import plants from different parts of India and on the other side, the nursery owners also export the plants to different parts of the world like Singapore, Malaysia, China, Thailand, Arabian and European countries, making Kadiyam stand high in the International market through valuable foreign exchange.

Growth and development of Kadiyam as a cluster of floriculture nurseries is not an individual effort, but it is an effort of all the stake holders involved in its bloom, primarily the floriculture nursery owners at Kadiyam. In spite of having such long lasting history, there are several bottlenecks such as operating as an unorganized sector, lack of control over the transactions, organizational disparities among the nurseries etc., which needs refinement for fine tuning Kadiyam towards richer heights. Keeping in view of the above, the present study was taken to the know constraints faced by commercial floriculture nursery owners and suggestions given by the nursery owners to overcome them.

## MATERIAL AND METHODS

The study was conducted at Kadiyam mandal in East Godavari district of Andhra Pradesh during the year 2018-19 as the locale is nationally and internationally known for commercial floriculture nurseries and was dominant with more area under floriculture in East Godavari district of Andhra Pradesh. *Ex-post facto* research design was followed for the study. Three villages with highest number and area under commercial floriculture nurseries namely Kadiyam, Vemagiri and Veeravaram were purposively selected and later 120 nursery owners were selected randomly from the three villages in proportion to the number of nurseries in each village. For the present study, the 'constraint' was operationalized as something that limits or controls the nursery owners in operating the nursery. Based on the review of literature and interaction with nursery owners during pretesting and by expert's opinion, a total of eight constraints were identified and included in the final schedule and the nursery owners were asked to rank the identified constraints in the order of their preference. Garrett's ranking technique was used to identify and rank the constraints. 'Suggestion' was operationally defined as the requirement expressed by the nursery owners for proper running of their nursery business. An open-ended schedule was developed to measure the suggestions. The suggestions as expressed by the nursery owners were keenly observed and framed into ten major suggestions. They were measured using frequency and percentage. Finally, the suggestions were ranked from one to ten based on the descending order of frequencies obtained.

### Garrett's Ranking Technique

To find out the major constraint faced by the respondent, Garrett's ranking technique was used. The prime advantage of this technique over simple frequency distribution is that the constraints are arranged based on their severity from the point of view of respondents. Hence, the same number of respondents on two or more constraints may have been given different rank. Garrett's formula for converting ranks into percent is:

$$\text{Percentage position} = 100 * (R_{ij} - 0.5) / N_j$$

Where  $R_{ij}$  = Rank given for  $i^{\text{th}}$  item by  $j^{\text{th}}$  nursery owner.

$N_j$  = Total number of constraints ranked

With the help of Garrett's table, the percent position estimated is converted into scores. Then for each constraint, the scores of each individual are added and then the total value of scores and mean values of score is calculated. The constraints having the highest mean value is considered to be the major constraint. The final ranking of the constraints in order to fix their relative priority was done on the basis of their mean score.

## RESULTS AND DISCUSSIONS

### Constraints faced by commercial floriculture nursery owners

Among different constraints faced by the nursery owners it can be noticed from Table 1 that scarcity of labour was ranked 1<sup>st</sup>, followed by unavailability of suitable soil due to legal restrictions as 2<sup>nd</sup>, attack of pests and diseases as 3<sup>rd</sup>, competition from new nurseries as 4<sup>th</sup>, marketing problems as 5<sup>th</sup>, lack of technical guidance to strengthen the farmers as 6<sup>th</sup>, high labour wages as 7<sup>th</sup>, and finally irregular supply of electricity as 8<sup>th</sup> rank respectively.

**Table 1. Garrett's ranking for different constraints faced by the nursery owners (n=120)**

S. No.	Constraint	Garrett's score	Garrett's Mean score	Rank
1.	High labour wages	4203	35.03	VII
2.	Unavailability of suitable soil due to legal restrictions	7950	66.25	II
3.	Scarcity of labour	8496	70.80	I
4.	Attack of pests and diseases	7352	61.27	III
5.	Competition from new nurseries	6661	55.51	IV
6.	Lack of technical guidance to strengthen the nursery owners	4248	35.40	VI
7.	Marketing problems	5117	42.64	V
8.	Irregular supply of electricity	4164	34.70	VIII

### Scarcity of labour

Among different constraints faced by nursery owners, they ranked inadequate availability of labour as number one with a mean score of 70.80. Kadiyam being protuberant with floriculture nursery business

having more than 1500 nurseries and also daily need of labour being a crucial factor for running a business, scarcity of labourers, especially skilled labourers has been identified as an important constraint.

#### **Unavailability of suitable soil**

Unavailability of suitable soil was ranked as the second constraint by the nursery owners with a mean score of 66.25. Usually, in a nursery industry essential raw material like soil and sand are used as potting mixture. But currently, the availability of them is becoming an important constraint due to some legal issues in the study area and even to compensate the unavailability of sand with coir pith it seems to be not a suitable growing medium for all types of plants in the nursery.

#### **Attack of pests and diseases**

Attack of pests and diseases was ranked as third constraint by the nursery owners with a mean score of 61.27. Even though the plants are kept in the nursery for a short span of time there are attacked by some of the sucking pests, termites, caterpillars, leaf folders etc., and diseases like blight mosaic and yellowing etc. It was also found from the survey that Rugose spiraling whitefly incidence to nursery plants in Kadiyam was in severe stage affecting the business at a greater extent.

#### **Competition from new nurseries**

Competition from new nurseries was ranked as fourth constraint by the nursery owners with a mean score of 55.51. Since this business having a long-lasting antiquity number of new nurseries are being increased day to day which are making the nursery owners face a challenge of market competition and decrease in quality of production. And also mushrooming of nurseries is unfavourably affecting small and medium sized nurseries in the study area.

#### **Marketing problems**

Marketing problems were ranked as fifth constraint by the nursery owners with a mean score of 42.64. During the interaction with nursery owners, the major marketing problems observed in Kadiyam were price fluctuations, middlemen exploitation, distress sales, high cost of transportation, lack of marketing facilities for export, lack of appropriate marketing channel and finally lack of market knowledge is also one of major marketing problem faced by the nursery owners.

#### **Lack of technical guidance to strengthen the nursery owners**

Lack of technical guidance was ranked as sixth constraint by the nursery owners with a mean score of 35.40. Since inadequate extension system was prevailing in the horticulture sector with lack of training programmes, demonstrations etc., the nursery owners in this area are not much aware of problems and prospects in this nursery business.

#### **High labour wages**

High labour wages was ranked as seventh constraint by the nursery owners with a mean score of 35.03. Since scarcity of labour being a major constraint in the study area there is a huge demand for both men and women labour which is therefore directing towards the increase in labour wages.

**Table 2. Suggestions given by the nursery owners to overcome their constraints (n= 120)**

S. No.	Suggestions	Frequency	Percentage	Rank
1.	Improved practices of mechanization to overcome the problem of scarcity of labour	106	88.33	<b>I</b>
2.	Provision of appropriate potting mixture to compensate the unavailability of soil	102	85.00	<b>II</b>
3.	Proper marketing facilities and better price for the plants.	94	78.33	<b>III</b>
4.	Timely technical advice to the nursery owners	90	75.00	<b>IV</b>
5.	Provision of demand driven knowledge about scientific cultivation practices in floriculture	85	70.83	<b>V</b>
6.	Regulation of the nurseries through proper registration and monitoring mechanism	82	68.33	<b>VI</b>
7.	Floriculture exhibition and trade shows should be organized	79	65.33	<b>VII</b>
8.	Periodic skill oriented training to update the knowledge related to business	76	63.33	<b>VIII</b>
9.	Providing subsidies to reduce initial cost of investment	65	54.17	<b>IX</b>
10.	Establishment of communal solar and biogas plants	69	57.50	<b>X</b>

#### **Irregular supply of electricity**

Irregular supply of electricity was ranked as eighth constraint by the nursery owners with a mean score of 34.70. Since the plants in the nursery need to be watered daily erratic supply of electricity was identified as one of the constraints by the nursery owners.

This result was in line with the findings of Mayuri [2], Wadekar [5], Swati et al. [4] and Gaikwad and Lalhriatpuii [1].

### **Suggestions given by commercial floriculture nursery owners to overcome their constraints**

Table 2 promisingly shown that, the majority of the nursery owners felt that the 'Improved practices of mechanization to overcome the problem of scarcity of labour' as one of the major suggestion and it was ranked first among all the suggestions.

'Provision of appropriate potting mixture to compensate the unavailability of soil' was suggested by second majority of nursery owners and was ranked second followed by 'Proper marketing facilities and better price for the plants' ranked third, 'Timely technical advice to the nursery owners' ranked fourth. 'Sufficient knowledge regarding recommended dose of fertilizer, insecticide/ pesticides etc.' ranked fifth, followed by 'Regulation of the nurseries through proper registration and monitoring mechanism' ranked sixth, 'Organisation of floriculture exhibition and trade shows' ranked seventh, 'Periodic skill oriented training to update the knowledge related to business' ranked eighth, 'Providing subsidies to reduce initial cost of investment' ranked ninth and 'Establishment of communal solar and biogas plants' was ranked tenth. This result was in line with the findings of Wadekar [5], Shewale [3] and Swati et al. [4].

### **CONCLUSION**

From the above observations, it could be concluded that commercial floriculture nursery owners at Kadiyam mandal are facing multifaceted problems with no proper solutions. In spite of their problems the nursery owners in Kadiyam are striving hard and smart to overcome the problems. In this connection the suggestions quoted by the nursery owners must be thoroughly examined by all the authorities and agencies involved in planning of strategies pertaining to floriculture nurseries and provide authentic feedback to the planners, researchers, extension personnel and to all those who are interested and are involved in starting a floriculture nursery.

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