

ARTICLE ID: 57

## Nutri-gardens: Nutritional Needs of Tribal Community in Andhra Pradesh

**P Babu, PVS Ramu naidu, N Raja Kumar, N Sathi Babu, N Kishor  
Kumar, K.Sankar Rao, A Sowjanya, Y Sravanthi and P Rajesh**  
**Krishi Vigyan Kendra, Kondempudi, Anakapalli, ICAR, ANGRAU, AP**

**Corresponding author: [babucac002@gmail.com](mailto:babucac002@gmail.com)**

**Corresponding author: [pvsramunaidu5075@gmail.com](mailto:pvsramunaidu5075@gmail.com)**

### Introduction

Nutri-garden is a multidimensional task to reduce malnutrition. In nutrition context, a nutri-garden is a habitat from which we get nutritionally rich vegetables, fruits and food from livestock sources. Nutri-garden (Karuppasamy 2021) is the growing of nutrient rich crops in residential houses or in community areas to meet the dietary requirements of the family all year round. Nutri-garden is also known as nutrition garden, kitchen garden, community nutrition garden etc. Vegetables are grown according to seasons by utilizing the locally available wastes and optimized utilization of household backyard/ front yard or community spaces. Once prepared the primary objective of a well laid out nutri-garden is to fulfil the nutritional requirement of the family in form of carbohydrate, protein, fibre or roughage, fats, vitamins and minerals. Nutri-garden is advanced form of kitchen garden in which vegetables are grown as a source of food and income. For small and marginal farmers, nutrigarden can generate a critical contribution to the family diet and provide several other benefits, particularly for women.

In India per capita availability is around 135 g against the minimum requirement of about 300g for a balance diet. Even this low level of average supply does not fully reflect the consumption pattern of the rural household and those below the poverty line where per capita

vegetable consumption is very low, even lower than 40g per day. It is now well conceived that by simply adding greens and other vegetables to the available food grains the diet of the average Indians can substantially be upgraded. To make this recommendation realistic promotion of Nutri-garden is the best option which can supply required vegetables in daily diet to the rural families.

According to Indian Council of Medical Research (ICMR), recommendation for vegetable consumption can be fulfilled i.e. 300 gm of vegetable per person per day in which 50 g leafy vegetable; 50 g root vegetables and 200 g other vegetables.

### **Objectives of the Nutri-Garden:**

1. Creation of Awareness on Nutri Sensitive Agriculture among farming community through capacity development and different level of various interfaces. 2. Promotion of Nutri Garden, Nutri thali, and Nutri villages. 3. Promotion of bio-fortified crop varieties for nutritional security among farm women and children. 4. Development of Entrepreneurship among youth by producing nutritional products. 5. Promoting Nutri Sensitive innovative practices and value chain development.

### **Classifications of Nutrigardens**

Nutri-garden can be classified into various types depending on the area, location, production etc.

1. Depending on the location, it can be classified into household/ home and community nutrigarden.
  - **Household nutri-garden** - primarily to a family and is a planned space located either in household's front yard or backyard space to be utilized either for cultivation. **Community nutri-garden** - leveraged by a group of peoples like Self Help Groups (SHGs) etc. via utilization of a community owned land like panchayat lands etc. for cultivation.
2. Basis of the types of produce : vegetarian or non –vegetarian.
3. Classification can also be based on the utilization of the produce of the nutri-garden e.g. self-consumption, selling, value addition etc.

### **Promotions of Nutri Garden**

The major aim is establishment of nutri-garden to grow essential vegetables which provides the nutritional products. The main highlight of this nutri garden will be “Grow what you eat and eat what you grow” (Jethi et al., 2020). Moreover women are the main target group of this programme as they are sole responsible for the nutrition of the family. Women will be encouraged for growing vegetables, pulses and fruit plants in their homestead garden or nutrigarden to improve their family diet.

Consumption of protective foods rich in anti-oxidants, minerals and coloured pigments, and fruits and vegetables that contributes to haemoglobin synthesis must be promoted among the farm women and school children by modes of trainings and special lectures, respectively. Vegetable based nutri-garden is the richest source of nutrition and can play an active role in eradicating under nutrition.

### **Points to be considered for layout of nutri garden:**

1. For layout, select a sunny site in the East-West direction near the residence.
2. Divide the lands into small plots Eg., (2m x 3m, 3m x 3m) which can be decreased or increased based on the family.
3. Select any combination crops as per need. In the front side, Raise short statured vegetables followed by higher and ultimately climbers on the backside. Side should be placed with fruit crops or curry leave/Moringa.
4. The perennial vegetables like Chayote (Cho-Cho), tree tomato, asparagus, greater yam etc. should be located on one side of the garden, so that they may not shade other crops, compete for nutrition with annual vegetable or come in way of proper rotation.
5. Once these perennial vegetables are established, less care is needed and a constant supply of vegetable will be obtained year after year with little additional cost of labour.
6. Keep one plot for raising nursery in which all seasonal seedlings can be raised as backup for plots that can be vacated after harvesting.

### **Selection criteria for vegetable crops**

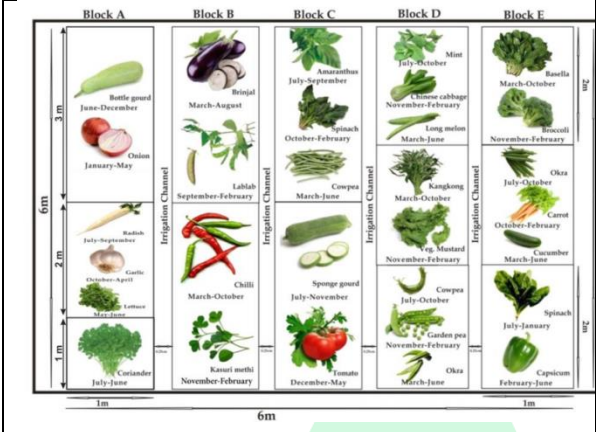


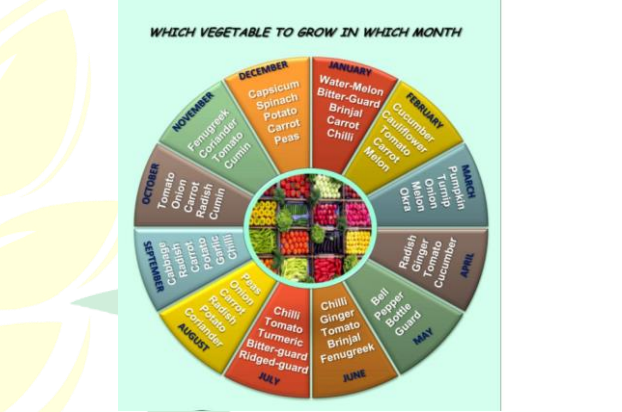
1. Select vegetables that are hardy, easy to grow adapted to the local climate and soil
2. Select vegetable varieties tolerant to common pests and disease.

3. Select a diverse range of vegetables, because all have different nutritional qualities.
4. Quality planting materials (Seed, cutting, seedling and tubers) of the selected
5. Vegetables must be locally available and easily accessible by the family members.
6. Include improved varieties but also traditional varieties to maintain agrobiodiversity and cultural heritage.
7. Family farming at homestead areas or nutri gardens help in making wider availability of crops dietary diversity at household level.
8. Promotion of safe and healthy eating habits among children
9. Provision of balanced nutrition to address the problem of malnutrition.
10. Diet diversification , Supplementation, Food fortification
11. Supply fresh fruits and vegetables high in nutritive value and free from toxic chemicals.

## CONCLUSION

Prior to the introduction of nutri-garden technology, farmers and farmwomen were unaware of the benefits of vegetables and included insufficient amounts of them in their daily diets. However, following the introduction of more advanced technology, both vegetable production and consumption increased. Kitchen gardening practises offer several social advantages, including improved neighbourhood interactions, greater earnings, employment opportunities, home food security, and better health and nutrition. One of the simplest and least expensive strategies to improve health is to increase the amount of fruits and vegetables you eat. Therefore, backyard nutrition gardening has to be widely promoted as a low-cost, sustainable method of reducing malnutrition, especially in rural homes.

Various Models of NutriGarden

	
<p>Punjab Model</p>	<p>Suryamandal Model</p>
	
<p>Rectangular shape Nutri garden</p>	<p>Monthwise crop list for nutrigarden</p>

References:

1. Jethi, R., Joshi, P., Jalal, A., Nautiyal, P., Chandra, N., and Arya, M.2020. Nutri-gardens: Key to Address Nutritional Needs of Hill Community. Journal of Community Mobilization and Sustainable Development. 15(1): 259-267.
2. Karuppasamy, P. 2021. Nutri garden- A way forward for enhancing Farmer’s Income and Household Nutritional Security. Journal of Krishi Vigyan.9 (2) : 159-162.