

# GANGA MA MANDAL MODEL: A NUTRI-GARDEN MODEL FOR HOUSEHOLD NUTRITION

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## INTRODUCTION

Ganga ma mandal model is a kind of homestead garden where it has a capacity to meet the nutritional requirements of a family of 5 members by growing different kinds of fruits, vegetables in an area of 1000 square feet land. This model ensures food security within the limited resources such as land water and other inputs, this is boon to landless people who can adopt this method and meet their day-to-day requirements of fruits, vegetables etc. adoption of this model reduces the reliability of the family to buy the fruits and vegetables from the market

## MATERIALS REQUIRED

- Various materials that are required to plan and implement this model are
- Area of 1000 sq. feet
- Rope of about 15 feet length
- Pegs and bamboo sticks
- Spade, crow bar, khurpi to prepare the land and excavate the soil
- Lime powder or chalk powder to demarcate different layers or circles
- Seeds or seedlings
- Crop residue
- Water



Figure 1 – Ganga Ma Mandal Model

## PROCEDURE



Figure 2 – Overview of Ganga Ma Mandal Model

- Place the peg in the centre or focal point of the selected 100 sq. feet area, tie a rope of 15 feet long, drag this rope till end and draw a circle at a distance of 15 feet from the stick and demarcate the borders with ash or lime.
- Measure the rope which is tied to the peg and mark it at a distance of 10.5, 9, 6, 4.5, and 3 feet far from the peg and draw the circles while taking the rope as a reference
- Now place a rope in the edge of the last circle measure about 13.5 feet length and divide the area under this last circle into 7 equal parts
- Make 7 paths of about 1.5 feet width in between the above divided seven segments
- In the innermost circle of 3 feet diameter make a funnel shaped pit of 2 feet deep and in the lower side of this pit add crop residues like sugarcane bagasse, cotton residue, red gram residue which will take more than 6 months for its decomposition, and add the subsequent layers add the residues which will take less time for decomposition
- On the both the sides of each of the 7 paths sticks are erected, pendals are made which can be used to grow creepers and guards and the area under the petal which is devoid of plants can be used for preparing

amrut mitti, which can be harvested in about 140 days.

- While taking into consideration of type of crop, its favourable climatic requirements various fruit trees, vegetables, tuber crops, fodder crop, root crops or whichever crops the family is in need can be grown wherever the place is available, for instance ginger requires shaded area to grow well, hence they should be grown on ridges or under the pandals, while guards require some support to grow hence they can be grown on the pendals that are made in the paths, creepers can be supported by giving them a support of a tree.
- As this model has 7 paths, so every day we enter one path in a sequential manner, pour water in the inner most circle, harvest the produce and come back, in this way every day we cover each path for 7 days, until we complete harvest in the 7th path then vegetables and fruits in the area of 1st path will be ready.



Figure 3 - Procedure for preparing Ganga Ma Mandal Model





## ADVANTAGES

- This model requires less space, less labour for maintenance
- Reduces the reliance of the family on market
- High productivity within limited land
- If paid labour is not affordable family labour can also manage
- It can meet the vegetables, food requirements of a family
- By adopting and working with this model, makes the person and the family fit by engaging them in physical works such as weeding, watering, harvesting
- Supplies natural organic fruits and vegetables which are free from harmful chemicals
- This model creates pleasant environment, an makes the family less prone to metal/psychological disorders
- Helps the family in saving money by preventing them from buying fruits and vegetables
- Economical
- Year-round supply of fruits and vegetables
- Adoption of this model makes

## CONCLUSION

Fruits and vegetables are not only rich in minerals and vitamins but also; contribute in a big way in maintaining health, overcoming hunger and malnutrition. The nutri-garden ensures access to healthy diet with adequate macro and micronutrients at doorstep. Ganga ma mandal model-an innovative design of nutri-garden provides opportunity to grow 30- 32 different types of crops this concludes it to be an effective and sustainable means of improving nutritional standards of low-income rural families through integrated household food production.

