



HOMESTEAD VEGETABLE GARDENING - A STEP TOWARDS FOOD AND NUTRITION SECURITY OF RURAL HOUSEHOLDS

**Popular
Article**

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ABSTRACT

A nutrition kitchen garden is a garden where vegetables and other useful plants like fruits, medicinal plants, spices, etc., are grown for human consumption. It plays a significant role in improving food security for the poor rural households in various countries like India. It is a small-scale form of vegetable growing, there can be pitted for composting and several plots or divided areas of land, intended to grow one or more types of plant in each plot. Due to heavy pesticides load in food crops mainly in vegetables and increased interest in organic products, many people are turning to vegetable kitchen gardening as a supplement to their family's diet.

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Introduction

Vegetables occupy an important place in our daily life particularly for vegetarians. Vegetables are the only source to increase not only the nutritive values of foods but also their palatability. For a balanced diet, an adult should have an intake of 85g of fruits and 300 g of vegetables per day according to the dietary recommendation of nutrition specialists. But the present level of production of vegetables in our country can permit a per capita consumption of only 120 g of vegetables per day.

A nutrition kitchen garden (also known as a vegetable patch or vegetable plot) is a garden that exists to grow vegetables and other useful plants like fruits, medicinal plants, spices, etc., for human consumption. It can play a significant role in improving food security for the resource poor rural households in developing country like India.

It is a small-scale form of vegetable growing. In a vegetable garden there can be pitted for composting and several plots or divided areas of land, intended to grow one or more types of plant in each plot. Plots may also be divided into rows with an assortment of vegetables grown in the different rows. It is usually located to the rear of a property in the back garden or back yard. Many families have a kitchen and vegetable gardens that they use to produce food. With worsening of chemical uses and increased interest in organic and sustainable living, many people are turning to vegetable kitchen gardening as a supplement to their family's diet.

Advantages of vegetable cultivation in homesteads

- The minimum area required to grow vegetables is found in most homesteads

- Even if the area available for growing vegetables is not enough, by vertical expansion, vegetables can still be grown
- Homestead area is usually high and therefore during the rainy season there is no water logging enabling vegetable cultivation
- All family members can work within homestead area
- After meeting family's requirements for vegetables, some can also be sold thus contributing to increasing family income
- Three to four crops can be grown since most vegetables are short-duration crops
- Daily family requirements for vegetables can be addressed and help reduce malnutrition

Benefits of homestead nutritional gardening

International experience and recent research in India demonstrate that rural house plots of they are large enough to include space to contain a large garden can confer multiple important benefit to poor rural household these include.

Improved family nutrition

Malnutrition and micronutrient deficiencies threaten the health of large number of poor families worldwide and particularly the health of children. Homestead garden can reduce that threat by providing a ready source of food where it is needed most in the household of the rural poor. A number of studies have found that homestead plots produce high percentage of fruits and vegetables consumed by families that grow small garden as well as providing a substantial percentage of overall calories in many tropical and subtropical settings, homestead plots can provide important protections against family food insecurity by providing a year round source of harvestable food. Homestead plots may become

the principal source of household food income during of stress.

Supplemental household income

Homestead plots can supplement household income in several ways. The household may sell products produced on the plot, including fruits, vegetable. In addition to direct earning from the sale of homestead plot production consumed by the household frees up household earnings for other purchases. In some cases a portion of the cash income from homestead plot products is used to purchase additional food for household consumption. Thus, home gardens provide households with a number of options by which they can satisfy their livelihood objectives, and each household can determine for itself what combination of consumption and sale of home garden production fits its livelihood strategy.

Welfare of women and children

An abundant homestead plot garden is often of additional value to women and children. Where women cannot homestead plot garden resources, household nutrition and especially children's nutrition may be improved produce may be one of the only sources of independent income for women and a plot may be an important source of states for women demonstrating the women's skills and capabilities, along with her freedom from dependence on vendors and neighbors.

Environmental benefits

Diversity of the plant species and layered cannot of species are often considered the most striking features of home gardens. Nutritional garden may also promote land conservation. Terraced homestead plots have been recommended to preserve soils on sloping areas. Allocation of homestead plots may also have beneficial off site environmental effects.

Obstacles/challenges in vegetable gardening in homesteads

- Limited availability of quality seeds
- Limited availability of quality vegetable varieties – i.e. those than stand drought or salinity
- Lack of skills
- Lack of awareness
- Dependence on season
- Low market price

Criteria of crop selection

- Season of production
- Nutritional value
- Market price
- Market demand

Type of garden

- Bed- type garden of a given size
- Pit- type randomly placed all over the homestead

Selection for location for vegetable cultivation

- Depending of the availability of land, it may be in front, behind or side of the house
- Open space where there is sunlight
- Near water source
- Should not get water logged during rainy season
- Should not be damp and shady

Preparation of bed

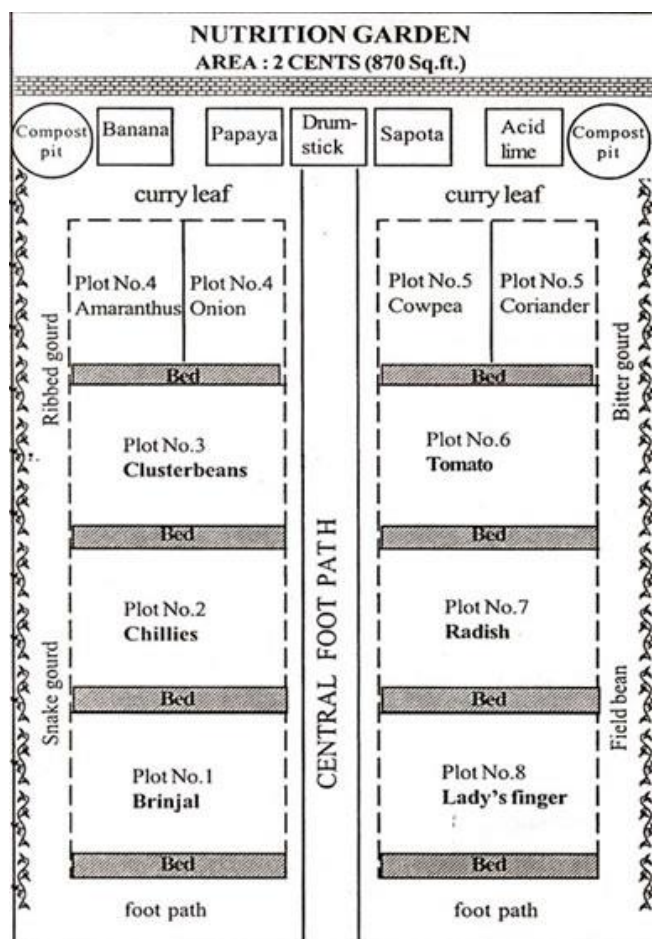
Size should be 4 ft x 10 ft depending on shape of homestead area. The space between two beds should be 0.75 – 1 ft so that there is space to walk between the beds. The beds should be prepared so that they get equal amount of sunlight. 6 inches of topsoil should be hoed and sorted of weeds, roots of other plants, stones and larger blocks of earth. Finally the top soil should be evened. For every bed measuring 4ft x 10 ft, 40 kg organic fertilizer (manure) and 500 to 700 gm of urea, TSP and MP fertilizer should be applied evenly and mixed well with the soil.

Table 1. Month wise distribution of crops in homestead gardening

Location	April - June	July -September	October - March
Pond embankment and bank	Bitter gourd, cucumber, pumpkin, papaya	Cucumber, bitter gourd, ash gourd	Tomato, bottle gourd, broad beans, oranges, sweet potato, pumpkin
Roof of house and fruitless plants	Ash gourd, pumpkin	Ash gourd, pumpkin	Broad beans, pumpkin
Scattered plots on the homestead that can be used for cultivation	Chilii, red spinach, bhendi, pumpkin, ash gourd, bottle gourd, papaya	Ash gourd, bottle gourd	Carrots, sweet potato, tomato, broad beans, bottle gourd, winter spinach, pumpkin, chilii, brinjal

Preparing pit

Where there limitations in household area, crops that grow on pit can be constructed in small spaces where there is sunlight. These plants include Broad beans, bitter gourd, ash gourd, and bottle gourd. These plants can grow on a pit or just simply on a bamboo stick erected next to the plant.



Courtesy : Mr. A. Rajangam, Asst. Prof., Horticulture Research Station, Periyakulam

Fig. 1. Layout of nutritional garden

Size of pit

Ridged gourd, snake gourd, cucumber: 1 hand x 1 hand x 1 hand

Bottle gourd: 15 inches x 15 inches x 15 inches

Broad beans: 1.5 ft x 1.5 ft x 1.5 ft

Pest and disease management

Diseases and pest are serious enemies of plants. If plants are not kept diseases and pest free then productivity will be poor. To manage this, instead of using chemical pesticides it is better to prevent using physical control e.g. proper cultivation methods used, keeping the land clean, mechanical control e.g. pruning off parts of plant that are diseased, biological control e.g. using beneficial insects to control pests.

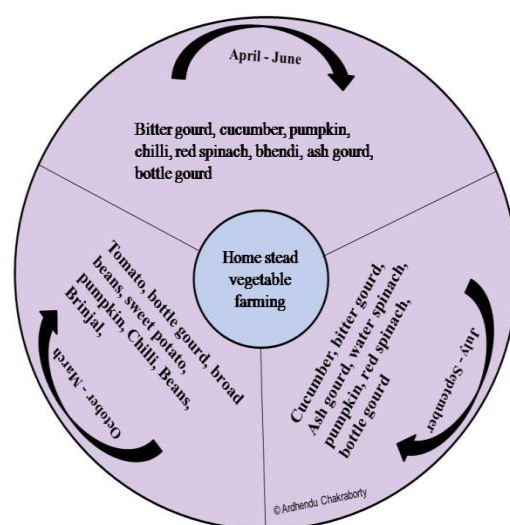


Fig. 2. Year round vegetable production chart

Conclusion

Homestead kitchen gardening is good practice in rural as well as urban areas where cultivable lands are confined in small areas. Healthy lifestyle with healthy contamination free food is need of the hour for a healthy nation and since now a days we all are inclined towards organic safe food hence kitchen garden can become an option to grow safe food with maximum utilization of bio inputs.

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