

GROWING OF VEGETABLES IN HOME OR KITCHEN GARDENING

Santosh Lal Jat, Kuldeep Singh Rajawat and Neeraj Singh Tanwar

Department of Horticulture RCA, Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan, India.

E-mail santoshjat86@gmail.com

Home or Kitchen Gardening

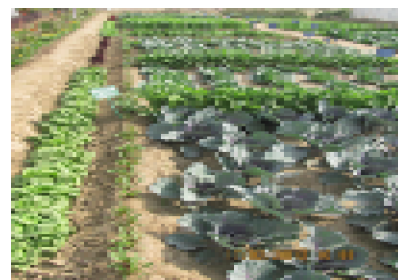
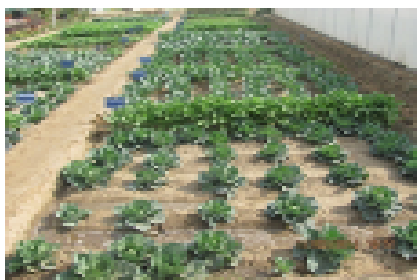
Malnutrition and under-nutrition account for considerable ill-health among our population. Vegetables play important role to make our food palatable, easily digestible, balanced and nutritive. Dieticians recommend consumption of 300 g/capita/day of vegetables to combat malnutrition. Vegetables grown in kitchen garden and container garden are fresher, safe, and superior in taste and quality in comparison to vegetables available in market for consumption. Kitchen gardening is the growing of vegetable crops in the residential houses to meet the requirements of the family all the year round. Every individual is concerned with home or kitchen garden. Irrespective of the fact whether the individual is a villager or a city dweller, kitchen garden should be a part of his home.



Kitchen gardening aims at an efficient and effective use of land for growing essential vegetables for daily use of a family. It plays an important part in vegetable production. The kitchen garden should aim at giving a continuous supply of vegetables to the family throughout the year, according to the season.

Location is the most fundamental criterion for success of a home or kitchen garden. As most of the work is done by the family members in spare times, the location should be in the backyard of the house. As far as practicable, kitchen garden plots should be located close to the well, water tap or other source of irrigation. Drain water from the kitchen can be profitably utilized. It should never be located in the shady area of home which is generally not suitable for most of the vegetables. There should be enough of sunlight for major part of the day.

In cities, the boundary wall of the compound will serve as a fence protecting the kitchen garden. In villages, a fairly high level area close to the house can be marked out for raising a kitchen garden which can be protected by a live fence all around. In cities, there is usually limited choice as regards size, shape and location of the kitchen garden. However, as per the layout of the house one has to utilize the adjacent land area for kitchen gardening. In village houses, sufficient land of desired shape and size may be available for a kitchen or home garden.



A view of kitchen garden growing plots

Designing the Kitchen Garden

The design of a kitchen garden depends on the character of the particular piece of land, its extent, situation, etc.

The following principles should be followed in designing the layout of the garden: (i) In most cases there is a limited choice for the selection of the site for a kitchen garden. The land is selected usually in the backyard of the house, where possibly a rectangular piece of land rather than a square is preferable. (ii) The layout should be such as to make the garden look attractive and allow access to all the parts. As various kinds of vegetables will be grown in different parts of the year, the land will have to be laid out in small plots with narrow and paths borders. (iii) In homes where no space is available one can grow vegetables in pots or boxes. But preference should be given to such vegetables which produce more number of fruits from an individual plant, i.e., cucurbits, tomato, brinjal, chillies, etc. (iv) One or two compost pits can be dug in the corner of the garden. (v) The quick growing fruit trees like papaya, banana, Kagzi lime, etc., should be located on one side preferably on northern side of the garden so that they may not shade other crops. (vi) Climbing type vegetables like cucurbits, peas, sem, etc., can be trained on the fences, (vii) Several sowings or a succession of sowing of one particular crop at short intervals should be done to ensure a steady supply of vegetables. (viii) The ridges which separate the beds should be utilized for growing root crops like radish, turnip, beet, carrot, etc. (ix) Early maturing crops should be planted together in continuous row so that the areas may be available at once for putting late crops. (x) The interspaces of some crops which are slow growing and take long duration to mature, like cabbage, cauliflower, brinjal should be used for growing some quick growing crops like radish, turnip, palak, lettuce, etc.

Crops for the Kitchen Garden

The crops to be taken in the kitchen garden depend mainly upon two factors, i.e., size of the garden and the choice of the family. Only those vegetables should be taken which are suited to the region and produce satisfactory yield. In case the land available is large for the kitchen garden, a large number of vegetables that the family likes, can be grown. If space is limited, only those vegetables can be grown which give better yield per unit area. The cultivars should be selected according to the suitability of the region and according to the period of sowing. Tomatoes, beans, cabbage, lettuce, palak, beet root and other root crops are desirable for small gardens. In fact, in kitchen garden one should grow those vegetables, in which freshness is of great importance from the stand point of edibility and food value:

Cropping arrangement in Kitchen Garden

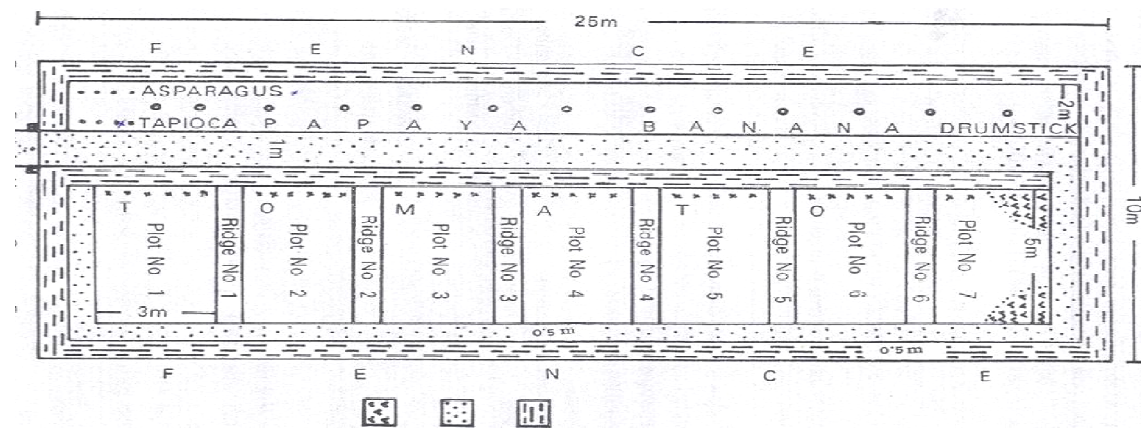
Plot No.	Crop	Month
1.	Cabbage intercropped with lettuce	November-March
	Cluster bean and French bean	March-October
2.	Cauliflower (late) intercropped with	September-February
	Knol khol	September-February
	Cowpea (summer)	March-August
	Cowpea (rainy season)	March-August
3.	Cauliflower (mid-season)	July-November
	Radish	November-December

Onion	December-June
4. Potato	November-March
Cowpea	March-June
Cauliflower (early)	July-October
5. Brinjal with spinach as intercrop	July-March
Bhindi with amaranthus as intercrop	March-June
6. Brinjal with spinach as intercrop	August-April
Bhindi with amaranthus as intercrop	May-July
7. Chillies	September-March
Bhindi	June-August

A separate plot on one side of the kitchen garden should be demarcated and the following perennial and quick growing fruit trees should be planted:

1. Drumstick—one row
2. Banana
3. Papaya
4. Tapioca
5. Kagzi lime

A layout plan as suggested by Choudhury (1970) may serve the purpose for kitchen (Fig 1).



Large number of varieties and hybrids suitable for growing in the home garden.

Crop	Varieties/hybrids
Brinjal	Pusa Kranti, Pusa Purple Cluster, Pusa Upkar, Pusa Uttam, Pusa Hybrid-5
Tomato	Pusa Sheetal, Pusa Sadabahar, Pusa Gaurav, Pusa Hybrid-2, Pusa Hybrid-4
Chilli	Pusa Sadabahar, Pusa Jwala
Amaranth	Pusa Lal Chaulai, Pusa Kirti, Pusa Kiran
Bathua	Pusa Bathua 1
Palak	All Green, Pusa Bharati
Methi	Pusa Early Bunching, Pusa Kasuri
Cabbage	Golden Acre
Cauliflower	Pusa Meghna, Pusa Deepali, Pusa Sharad, Pusa Subhra, Pusa Snowball-1, Pusa Pausja, Pusa Shukti,
Onion	Pusa Red, Pusa Madhvi, Pusa White Flat, Pusa White Round
Radish	Pusa Chetaki, Pusa Desi, Pusa Reshmi, Rapid Red White Tipped, Pusa

	Himani
Carrot	Pusa Meghali, Nantes, Pusa Kesar, Pusa Rudhira, Pusa Asita
Turnip	Purple Top White Globe, Pusa Sweti, Pusa Chandrima, Pusa Swarnima
Pea	Arkel, Pusa Pragati
Cowpea	Pusa Komal, Pusa Dofasli
French bean	Contender, Pusa Parvati, Kentucky Wonder
Sem	Pusa Sem-2, Pusa Sem-3
Bhindi	Pusa A-4, Pusa Sawani
Lettuce	Great Lakes, Chinese Yellow
Bottle gourd	Pusa Sandesh, Pusa Naveen, Pusa Hybrid-3
Bitter gourd	Pusa Visheh, Pusa Do Mousami
Pumpkin	Pusa Vikas
Sponge gourd	Pusa Sneha, Pusa Supriya
Cucumber	Pusa Uday, Poinsette

Nutrient availability in vegetable crops:

Carbohydrates	Potato, Sweet Potato, Colocasia, Beet root.
Protein	Peas, Sem (beans), French bean, Cowpea, Cluster bean (Guar), Amaranth, Broad bean (Bakla).
Vitamin A	Carrot (yellow type), Palak, Tomato, Turnip, Amaranth, Sweet Potato (yellow fleshed), Pumpkin (yellow fleshed), Cabbage, Fenugreek (Methi), Coriander, Broccoli, Beet root, Green chilli.
Vitamin B	Peas, Sem, Garlic, Colocasia, Cabbage, Green chilli, Carrot, Onion.
Vitamin C	Tomato, Turnip, Green chillies, Cauliflower, Knol-khol, Bitter gourd, Radish leaves, Amaranth, Brussels sprout, Kale, Methi, Palak and Cabbage.
Calcium	Beet root, Amaranth, Turnip, leaves, Coriander, Pumpkin, Onion, Tomato, Sem (beans), Cauliflower, Carrot, Cabbage and Peas.
Potassium	Sweet Potato, Potato, Bitter gourd, Radish, Sem (beans).
Phosphorus	Garlic, Peas, Bitter gourd, Potato, Carrot, Tomato, Palak, Cauliflower.
Iron	Bitter gourd, Amaranth, Fenugreek, Mint, Indian Spinach (Palak), Peas, Cabbage, Sem (beans), Tomato.

References:-

- Douglas, J. M. and Simon, L. (2014).** Review Paper on ‘Garden Kits’ in Africa: Lessons Learned and the Potential of Improved Water Management.
- Jennifer, R. B. (2006).** Designing the New Kitchen Garden: An American Potager Handbook.p-35-80.
- Richard, B. (2016).** The Kitchen Garden Book: The Complete Practical Guide to Kitchen Gardening, from Planning and Planting to Harvesting and Storing.p-55-72.