KITCHEN GARDEN

Importance of vegetables

- 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 its palatability.
- For a balanced diet, an adult should have an intake of 85 g of fruits and 300 g of vegetables per day as per 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

Kitchen Garden

- Considering the importance of vegetables, to produce our own vegetable requirements in our backyards using the available fresh water as well as the kitchen concept has emerged
- This will only facilitate successful production of our own requirement of vegetables.
- Cultivation in a small area facilitates the methods of controlling pests and diseases through the removal of affected parts and non-use of chemicals.
- This is a safe practice, which does not cause toxic residues of pesticides in the vegetables produced.

Kitchen Garden Site Selection

- There will be limited choice for the selection of sites for kitchen gardens and the final choice is usually the backyard of the house.
- This is convenient as the members of the family can give a constant care to the vegetables during leisure and the wastewater from the bathrooms and kitchen can easily be diverted to the vegetable beds.
- The size of a kitchen garden depends upon the availability of land and number of persons for whom vegetables are to be provided.
- There is no restriction in the shape of the kitchen garden but wherever possible rectangular garden is preferred to a square one.
- With succession cropping and intercropping, five cents of land would be adequate to supply vegetables for an average family of four to five persons.

Land preparation

- Firstly, digging with a spade and is make a depth of 30-40 cm.
- Stones, bushes and perennial weeds are removed.
- 100 kg of well decomposed farmyard manure or vermicompost is applied and mixed with the soil.
- Ridges and furrows are formed at a spacing of 45 cm or 60 cm as per the requirement.
- Flat beds can also be formed instead of ridges and furrows.

Sowing and planting

The main objective of a kitchen garden is the maximum output and a continuous supply of vegetables for the table throughout the year. By following certain procedures, this objective can easily be achieved.

1. Direct sown crops like bhindi, cluster beans and cowpea can be sown on one side of the ridges at a spacing of 30 cm. Amaranthus (meant for whole plant pull out and clipping) can be sown after mixing 1 part of seeds with 20 parts of fine sand by broadcasting in the plots. Small onion, mint and coriander can be planted/sown along the bunds of plots.
2. Seeds of transplanted crops like tomato, brinjal and chilli can be sown in nursery beds or pots one month in advance by drawing lines. After sowing and covering with top soil and then dusting with 250 grams neem cake so as to save the seeds from ants. About 30 days after sowing for tomato and 40-45 days for brinjal and chilli and big onion the seedlings are removed from nursery and transplanted along one side of the ridges at spacing of 30-45 cm for tomato, brinjal and chilli and 10 cm on both the sides of the ridges for big onion. The plants should be irrigated immediately after planting and again on 3rd day. The seedlings can be watered once in two days in the earlier stages and then once in 4 days later.
3. The perennial plants should be located on one side of the garden, usually on the rear end of the garden so that they may not shade other crops, compete for nutrition with the other vegetable crops.
4. Adjacent to the foot path all around the garden and the central foot path may be utilised for growing different short duration green vegetables like Coriander, spinach, fenugreek, Alternanthera, Mint etc

A cropping pattern, which may prove helpful for kitchen garden under Indian conditions (except hill stations), is given below.

Plot no	Name of the Vegetable	Season
01.	Tomato and onion Radish Beans Bhindi (okra)	June - Sep. Oct.-Nov. Dec.-Feb. Mar.-May
02	Brinjal Beans Tomato Amaranthus	June - Sep. Oct.-Nov June - Sep. May
03.	Chilli and Radish Cowpea Onion	Jun-Sep. Dec.-Feb. Mar.-May
04.	Bhindi and Radish Cabbage Cluster beans	Jun.-Aug. Sep.-Dec. Jan.-Mar.
05.	Beet root Tomato Onion	June-Aug. Sep.-Nov. Dec.-Mar. Apr.-May
06.	Cluster beans Brinjal and beet root	Jun.-Sep. Oct.-Jan.
07.	Carrot Pumpkin (small)	Jul.-Aug. Sep.-Dec. Jan.-May
08.	Lab lab (bush type) Onion Bhindi Coriander	Jun.-Aug. Sep.-Dec. Jun.-Mar Apr.-May

Perennial plot

1. Drumstick, Banana, Papaya, Tapioca, Curry leaf and Agathi.
2. It may be observed from the above crop arrangements that throughout the year some crop is grown in each plot without break (Succession cropping) and where ever possible two crops (one long duration and the other a short duration one) are grown together in the same plot (companion cropping).

Economic benefits of gardening

Gardeners feed their families first and then sell, barter or give away surplus garden foods. In certain contexts, however, income generation may become the primary objective of the home garden. In any case, it is counterproductive to impose the nutrition objective to the exclusion of the income generation objective, since in most contexts they are linked and compatible. The potential economic benefits of home gardening include the following:

- Gardening gives dual benefits of food and income generation;
- Gardens provide fodder for household animals and supplies for other household needs (handicrafts, fuel wood, furniture, baskets, etc.);
- Marketing of garden produce and animals is often the only source of independent income for women.

Size and shape of vegetable garden depends on

- Availability of land
- Number of persons in family

Maintenance of Kitchen garden

- Grow the plants on the fence by training
- Dump all the kitchen waste in the manure pits and maintain in wet condition

Irrigation: As and when necessary

Manures and Fertilizers

- Apply the decomposed kitchen waste to all the crops
- Complex fertilizers @ 5 gram/plant at 30, 60 and 90 day of planting

Weeding: As and when necessary

Harvest: When there is a colour change from green to yellow or orange

Plant Protection: Pick and destroy the larvae found on fruits and vegetables and then spray. Avoid spraying of toxic chemicals.

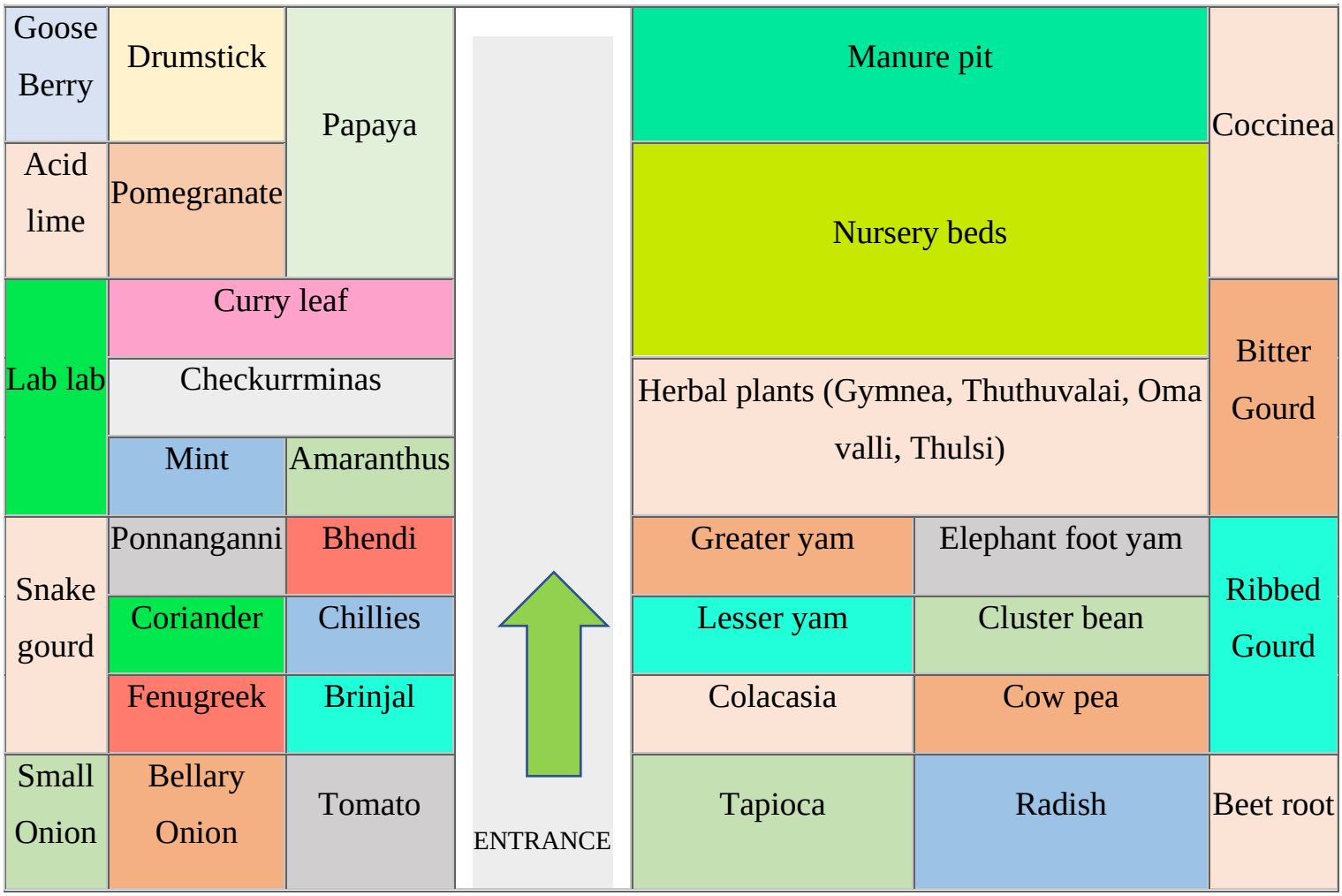
Layout of Kitchen garden

- Fence – Barbed wire fence or live fence with agathi
- Perennial crops (Mango, Sapota, Acid lime, Amla, Morniga) should be planted at the peripheral areas of kitchen garden **(avoid shading)**
- One or two compost pits may be provided on one corner

- Fences on all sides should be trained with Cucurbitaceous vegetables (Bottle gourd, Bitter gourd and Snake gourd)
- Some vegetables are direct sown – (Amaranthus, Bottle gourd, Bitter gourd and Snake gourd)
- Some vegetables are nursery transplanted (Tomato, Brinjal, Chillies, Onion)
- Divide the area into equal sized plots for raising annual vegetable crops
- As intensive and continuous cropping is done in a kitchen garden.
- Fertility and texture of soil may be maintained by applying adequate quantities of organic manures frequently.
- Ridges and furrows are formed in each plots.
- Season of planting: June – July, September – October
- Bee-hive may be provided for ensuring adequate pollination of crops besides obtaining honey.
- However, in order to harvest good crop, chemical fertilizers are also essential.
- Pick and destroy the larvae found on fruits and vegetables and then spray Neem oil @ 4 ml/litre of water or Neem Seed Kernel Extract @ 3 %.
- Avoid spraying of toxic chemicals
- Nearly ***five cents of land (200 m^2)*** is sufficient to provide vegetables throughout year for a family consisting of five members
- A rectangular garden is preferred than a square plot or a long strip of land.

Crops suited for Kitchen garden

Fruits	Vegetables	Spices	Medicinal Plants	Trees
Mango	Tomato	Turmeric	Aloe	Bottle brush
Banana	Brinjal	Coriander	Solanum	Pagoda tree
Sapota	Chilly	Fenugreek	Vasambu	Mandarai
Guava	Onion		Vallarai	
Papaya	Big Onion		Mint	
Acid lime	Bhendi		Basil	
Amla	Bitter gourd		Thulsi	
Pomegranate	Snake gourd		Omavalli	
Anona	Ribbed gourd		Karisilanganni	
Date Pam	Bottle gourd		Keelanelli	
	Amaranthus		Pirandai	
	Lab lab		Thoothuvelai	
	Beetroot		Ponnanganni	
	Radish		Poduthalai	
	Curry leaf		Manathakali	
	Moringa		Vettiver	
	Spinach			
	Cluster bean			
	Cowpea			
	Moringa			
	Tapioca			


Goose Berry
Drumstick
Papaya
Acid lime
Pomegranate
Curry leaf
Lab lab
Checkurrminas
Mint
Amaranthus
Ponnanganni
Bhendi
Snake gourd
Coriander
Chillies
Fenugreek
Brinjal
Small Onion
Bellary Onion
Tomato
ENTRANCE
Manure pit
Coccinea
Nursery beds
Herbal plants (Gymnea, Thuthuvalai, Oma valli, Thulsi)
Bitter Gourd
Greater yam
Elephant foot yam
Ribbed Gourd
Lesser yam
Cluster bean
Colacasia
Cow pea
Tapioca
Radish
Beet root