



## FFS Key messages on Homestead Gardening - Vegetables and Fruits

Using the experience gained from some five years' experience of implementing Farmer Field Schools under the Blue Gold Program, five booklets were prepared in August 2018 covering: nutrition, **homestead gardening (vegetables and fruits)**, poultry, fish and beef fattening. The purpose of these booklets was to ensure that all FFS participants had a reference containing the key messages (in Bangla) for their own use, as a recap for what they had learnt, but also as a tool for sharing their learnings with neighbours and friends. The importance of passing on messages to neighbours and friends was actively promoted during the FFS sessions as a contribution to Blue Gold's horizontal learning ambition.

This note provides a translation in English of the key messages from the homestead gardening booklet used in the homestead Farmer Field School (FFS) interventions<sup>1</sup> by the Blue Gold Program.



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<sup>1</sup> Trainers, please note that there are separate Blue Gold FFS [training modules](https://www.bluegoldwiki.com/index.php?title=File:TM_homestead_FFS_nov_18_opt_compressed.pdf) (in Bangla) covering Homestead Vegetable Gardening, Poultry Rearing, Homestead Fruit Farming, Beef Fattening, Fisheries and Market Orientation and Value Chain Development (MOVDC). These may be obtained from the file library through the wiki Lessons Learnt Report of the Blue Gold Program via the URL: [Blue Gold Program Wiki \(bluegoldwiki.com\)](https://www.bluegoldwiki.com/index.php?title=File:TM_homestead_FFS_nov_18_opt_compressed.pdf). Specifically the homestead vegetables FFS training module is available via: [https://www.bluegoldwiki.com/index.php?title=File:TM\\_homestead\\_FFS\\_nov\\_18\\_opt\\_compressed.pdf](https://www.bluegoldwiki.com/index.php?title=File:TM_homestead_FFS_nov_18_opt_compressed.pdf) and the homestead fruit farming training module via: [https://www.bluegoldwiki.com/index.php?title=File:TM\\_fruit\\_farming\\_FFS\\_jan\\_19\\_compressed.pdf](https://www.bluegoldwiki.com/index.php?title=File:TM_fruit_farming_FFS_jan_19_compressed.pdf)

## Messages to share with your neighbours and friends

### Introduction

In the FFS homestead vegetables and fruit, the most important topics you learned were:

- 1) Space planning
- 2) Quality seeds
- 3) Raised beds
- 4) Soil health
- 5) Mixed cropping
- 6) Compost
- 7) Mulch
- 8) Hand pollination
- 9) Fertilizing fruit trees
- 10) Pesticides
- 11) Manual pest control
- 12) Pheromone traps
- 13) Bagging fruits
- 14) Crop rotation
- 15) Record keeping
- 16) Networking

This booklet is an overview of messages which you can share with your neighbours. Invite them to see your homestead garden so they can see it in practice.

### Increase your homestead production by space planning

Each homestead has different places that can be used for vegetables or fruits.

Make a plan to use all these spaces to optimize your production.

Places that can be used are:

- Sunny open place
  - (prepare beds for vegetables such as Red amaranth, Okra, Tomato, Brinjal, Chili, Cabbage, Cauliflower, Khonkhol, Radish and Carrot, or grow some Drumstick trees)
- Shady area and semi shady area
  - (good for Ginger, Turmeric, Coriander etc. )
- Wet places
  - (can be used for Morning glory and different types of Aroids)
- Macha at pond side
  - (good to grow Cucumbers, Bottle gourds and Bitter gourds)
- Hedges, fence and trellis
  - (can be used to support climbing plants such as Cucumber, Bitter gourd, Rib gourd, Sponge gourd, Beans, Indian spinach, etc.)
- Timber trees
  - (can be used to support plants such as Yam, Ash gourd and Chui Jhal)
- Pots or drums
  - (can be used to grow Pepper, Brinjal, Lemon and Guava)

- Side and roof of house
  - (to grow Wax gourd, Sweet gourd, Country bean, Yard long bean, Indian spinach, etc)

If you use all suitable areas of your homestead you can produce more fruits and vegetables for your family and earn extra income.

## Use high quality seed

Grow vegetables from high quality seeds.

Select high yielding varieties that are most suitable for your area.

Talk with your extension officer or with experienced farmers to get advice on which varieties are best.

Store your seeds in a cool dry place.

## Use raised beds for vegetable production

Prepare raised beds for growing your vegetables.

The bed should be about 120 cm wide (4 feet), about 20 cm high (8 inches), and the length is according to your garden size.

Keep a space of about 30 cm (1 foot) between parallel beds.

Vegetable beds have several advantages:

- You can move easily between the beds.
- You can easily reach all plants for fertilization, weeding, thinning, pest management, watering and harvesting.
- The raised bed protects the vegetables from water logging.

Use the raised beds for year-round vegetable production. You can eat more vegetables and sell the rest to earn some income.

## Improve your soil health

Soils are healthy when they have a lot of organic matter.

Organic matter creates a suitable environment for soil organisms that support growing plants.

There are some easy ways to improve the health of your soil:

- Till the soil as little as possible.
- Grow different species of plants through crop rotations.
- Grow many different species of plants together in a diverse mixture of crops.
- Keep living plants in the ground as long as possible with crops and cover crops.
- Maintain the soil covered with residue year-round.
- Fertilize the soil with organic manure and compost.

If your soil is healthy, your garden will be more productive.

## **Use mixed cropping**

In a homestead area it is good to grow different crops together in a mixed cropping system.

Mixing crops uses the soil more efficiently and reduces attacks by insect pests and diseases.

Mixing crops improves soil health.

Mixed cropping is part of Integrated Pest Management (IPM).

If you grow different crops together, you will have less pest problems and you have more variation in your diet.

## **Produce compost and use it as an organic fertilizer**

Collect organic waste from kitchen and animals. Use it to make compost for your garden.

It is good to have two pits for making compost. The pits should be about 1.5 x 1.5 meter and about 1 meter deep.

The pits need a roof to protect them from rain.

When the pit is full, cover it with soil and keep it closed for 1 to 1.5 months.

Use the compost to fertilize your vegetable beds and fruit trees. Compost is an organic fertilizer that improves soil health and increases the productivity. It also increases soil water holding capacity.

If you use compost, you will produce more and healthier vegetables and fruits. You also save money as you need to buy less chemical fertilizers.

## **Use mulch to cover your soil**

Most plants need constant soil moisture for proper growth.

If you cover your soil with mulch this will keep the soil moist for longer.

Using mulch improves soil health.

You can use rice straw or other plant materials for mulch. This mulch material will absorb water from rainfall and irrigation and slows the evaporation of moisture from the soil.

*However:*

Under brinjal plants you should not use mulch because brinjal fruit and shoot borer like to pupate between fallen plant materials. Grow brinjal always with a clean soil.

## **Use hand pollination for your gourds**

Hand pollination is a way to increase the production of gourds and related vegetables.

It will increase the number of fruits of the plants.

If you practice hand pollination you will produce more and better vegetables and you can earn more money.

## **Fertilize your fruit trees**

Fertilizing your fruit trees twice each year will help enhance the growth of a tree. It also ensures timely flowering and increases fruit bearing.

Fertilize your trees with chemical fertilizers and also with organic manure (compost).

Organic fertilizers improve the health of your soil.

If you fertilize your fruit trees regularly they will produce more and high quality fruits. You can eat more and sell more.

## **Never use pesticides in your homestead crops**

Pesticides are toxic chemicals. They are harmful for your health and they pollute the environment.

Pesticides not only kill pests, but also beneficial insects and spiders that protect your crop.

In a homestead area, never use pesticides! They are dangerous for your children and farm animals.

If you have pest problems, use Integrated Pest Management (IPM) methods, for example spray a soap solution to control aphids or use Neem extract.

## **Use hand collection to control pests and diseases**

Regularly inspect your plants.

Collect and destroy caterpillars and other insects that damage your plants.

Remove and destroy diseased plants.

Hand collection of pests is part of Integrated Pest Management (IPM).

## **Use pheromone traps against fruit flies**

Use pheromone traps to protect your vegetables and fruits from fruit fly attack.

Make sure to buy the correct pheromone for your crop.

Timely replace the lure and make sure that the trap is always filled with a water-soap solution.

Pheromone traps are an environmental friendly way of managing pests. They help you to reduce pest damage in a cost effective and safe way.

Using pheromone traps is part of Integrated Pest Management (IPM).

## **Use bagging to protect fruits and vegetables from insect pests**

You can use paper or plastic bags to protect fruits and vegetables from fruit flies and other insects.

If you have no bags, try to use pieces of newspaper to wrap the fruits.

Bagging is useful for guava, pomegranate, mango, and other fruits.

Bagging can also be used to protect gourds.

Bagging will help you producing healthy and pesticide free fruits and vegetables.

Bagging is part of Integrated Pest Management (IPM).

## Use crop rotation

Crop rotation means that you don't grow the same plants on the same spot every year.

It is better for the soil to rotate crops. Crop rotation improves soil health.

Crop rotation is part of Integrated Pest Management (IPM).

## Keep records of inputs and outputs

Make sure that you are aware about all income and expenses. This helps you to calculate the profitability of your homestead garden.

In a notebook write down:

- All expenses for your homestead garden:
  - cost of seeds
  - cost of saplings or cuttings
  - cost of fertilizer
  - cost of tools
  - cost of pheromone traps and lures
  - cost of pesticides
  - cost of making a compost pit
  - cost of transport
  - etc.
- The household consumption of vegetables and fruits (kg) and estimate the value (Taka)
- The quantity of vegetable and fruits sold (kg) and money received (Taka)

At the end of the season then calculate the net benefit of your homestead garden.

## Share and look for information

Share your knowledge with your neighbours and friends.

Write down the names and mobile numbers of persons who can provide more information about growing vegetables and fruits:

### DAE officers:

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|----------|---------|
| 1) Name: | Mobile: |
| 2) Name: | Mobile: |

### FFS facilitators / Contact farmers / Resource farmers:

- |          |         |
|----------|---------|
| 1) Name: | Mobile: |
| 2) Name: | Mobile: |
| 3) Name: | Mobile: |

