



Vietnam Farmers' Union



What is organic farming?

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Organic farming is not use:

- Chemical fertilizer or human manure.
- Herbicide and pesticides that harmful and residues in the soil for a long time and enter the food chain where they build up in the bodies of animals and humans, causing health problems.

To keep and build good soil structure and fertility, organic farming use:

- Crop rotation
- Legumes
- Green manures
- Recycled and composted crop wastes and animal manures
- The right soil cultivation at the right time
- Mulching on the soil surface to protect plants

Why organic farming?

- Organic farming protect soil for the future
- Organic farming make long-term soil fertility
- Organic farming control pests and diseases without harming the people, the environment and the natural.
- Organic farming ensure that water stays clean and safe.
- All the method mentioned above use resources which the farmer already has, so the farmer needs less money to buy farm inputs.

Organic farming protect environment and produce nutritious food, feed for animals and high quality crops to sell at a good price.

Modern, intensive agriculture causes many problems:

- Poor soil structure
- Greater amounts are needed every year to produce the same yields of crops.
- Pests and diseases become more difficult to control

- Fertilisers and herbicides are easily washed from the soil and pollute rivers, lakes and water courses
- pesticides can stay in the soil for a long time and enter the food chain where they build up in the bodies of animals and humans, causing health problems

Organic farming back to traditional method

- Organic farming does not mean going 'back' to traditional methods
- Many of the traditional farming methods are good practice and good quality but yield is low
- Organic farming takes the best of these and combines them with modern scientific knowledge
- Organic farmers do not leave their farms to be taken over by nature; they use all the knowledge, techniques and materials available to work with nature
- To be a successful organic farmer, the farmer must not see every insect as a pest, every plant out of place as a weed and the solution to every problem in an artificial chemical spray.
- Organic farmers should create the balance between nature and farming where plant and animal should live and development.

Use of pesticide

- Organic farming no not use chemical pesticide easy to dissolve in water and distract in food chain or water resource.
- Only one spay chemical pesticide will lost the balance between insect and nature enemy.
- Even if possible may not use natural plants to prevent pest, diseases and weed. If farmers need to use pesticide they should use safety herbal or bio pesticide.
- It is better that we should check the international organic standard or national standard to see which herbal or bio-pesticide recommended to use in organic farming,

The soil for organic farming

The soil is a living system. As well as the particles that make up the soil, it contains millions of different creatures. These creatures are very important for recycling nutrients. Feeding the soil with manure or compost feeds the whole variety of life in the soil which then turns this material into food for plant growth.

This also adds nutrients and organic matter to the soil. Green manures also provide nutrients and organic matter. These are plants with high nitrogen content that are sown as part of a rotation and are dug into the soil when young. The organic farmer must cultivate the soil at the right time and in the right ways to provide the best living conditions for the soil life and plant roots.

The soil need air for development of the root and healthy plants and allow improving the soils water holding capacity. Water has to soak into soil but not too fast.

Crop nutrition

Artificial fertilisers do not help keeping the water in the soil and they do not help to build good soil structure, improve the soils water holding capacity.

Artificial fertilisers encourage plants to grow quickly but with soft growth which is less able to withstand drought, pests and disease

- If possible, organic farmer should use inputs from their farm; minimize the use of material outside their farm.
- The nutrient should be recycling by composting and use animal manure.
- Maximize using natural processing by nitrate fixing from the legume.

It is important to remember, however, that using too much animal manure or nutrient rich organic matter, or using it at the wrong time, could be as harmful as using man-made, artificial fertilisers.

Rotations

All organic farming system are based on the good practice of crop rotation
Crop rotation means having times where the fertility of the soil is being built up and times where crops are grown which remove nutrients.

Crop rotation helps to control weed and diseases, and also help good natural enemy can leave in the farm.

Type of crop rotation:

- Change the plants
- Grass or bush fallow
- Crop rotation with legume crop

Green manures

Green manures are plant to improve the soil structure, increase and recycle plant nutrients and organic matter content and very good in organic farm management.

They are fixing nitrate, however they can be grown together with crops or alone or provide soil cover. They are grown to stop nutrients being washed out of the soil, for example, when the ground is not used between main crops

Green manures use for:

- Increase and recycle plant nutrients
- Improve soil structure
- Improve the ability of the soil to hold water
- Control soil erosion

Natural life

It is importance to create better life condition for many insects and plants in the farm. This is likely the invitation for insect and weed when farmers are very hard working and spend more time to control natural life. However, animal and plant in the nature are not much harmful from pest and diseases. All insect have their place and the number of some insect is control by other insect.

This mean nature should control your farm.

Farmers should identify pest and diseases correctly. This will prevent the farmer from wasting time or accidentally eliminating beneficial insects. It is therefore useful to know life cycles, breeding habits, preferred host plants and predators of pests.

Careful use of water

In arid lands the careful use of water is as much a part of organic growing as is any other technique in organic farming

As with other resources, organic farmers should try to use water which is available locally, avoiding using water faster than it is replaced naturally.

There are many ways to use water carefully, including:

- The use of terracing, rain water basins or catchments and careful irrigation
- The addition of organic matter to the soil to improve its ability to hold water
- The use of mulches to hold water in the soil by stopping the soil surface from drying out or becoming too hot

Genetic diversity

Within a single crop there can be many differences between plants. They may vary in height or ability to resist diseases. These differences are genetic. Traditional varieties have been selected over many centuries to meet the requirements of farmers. Although many are being replaced by modern varieties, seeds are often still saved locally.

Crops which have been bred by modern breeding methods tend to be very similar and if one plant is prone to disease, all the other plants are as well. Although some modern varieties may be very resistant to specific pests and diseases they are often less suited to local conditions than traditional varieties. It can therefore be dangerous to rely too much on any one of them.

In organic systems, some variation or 'genetic diversity' between the plants within a crop is beneficial. Growing a number of different crops rather than relying on one is also very important. This helps to protect against pests and diseases and acts as insurance against crop failure in unusual weather such as drought or flood. It is important to remember this when choosing which crops to grow.

An organic farmer should try to:

- use as many local crop varieties as possible
- Growing more than one modern variety
- Grow a mixture of crops in the same field

Selection plants

Each plant and variety has their own needs and they will grow better in the right soil and they will have low development in the wrong soil. Different plant is affected by following factor:

- Soil type
- Climate
- Height
- Type and quantity of nutrient
- Needed water

Plants will have high productivity and good resistance when they are planted in the good condition.

Organic farmers learn how to grow the right plant to the local condition.

Pest and disease control

Healthy crops that suffer less damage from pests and diseases so grown with healthy crops and the first objective of the organic farmers.

So choosing crops with a natural resistance to specific pests and diseases are very important.

Local varieties are better at resisting local pest and diseases than introduced varieties.

There are many ways in which the organic farmer can control pests and diseases.

- Timely planting of crops to avoid the period when a pest does most damage.
- Companion planting with other crops that pests will avoid, such as onion or garlic.
- Trapping or picking pests from the crop.
- Providing natural habitats to encourage natural predators that control pests..

Through careful planning and using all the other techniques available it should be possible to avoid the need for any crop spraying.

If pests are still a problem natural products can be used to manage pests, including sprays made by natural resources.

Weed control

On an organic farm, weeds are controlled using a number of methods:

- Hand-weeding or the use of mechanical weeders
- Crop rotation
- Mulches, which cover the soil and stop weed seeds from germinating
- Planting crops close together within each bed
- Hoeing
- Burning

Combined techniques

On an organic farm, each technique would not normally be used on its own. The farmer would use a range of organic methods at the same time to allow them to work together for the maximum benefit.

For example the use of green manures and careful cultivation, together provide better control of weeds than if the techniques were used on their own.

Animal management

In the organic system:

- Animal health and welfare in organic livestock is very important.
- Livestock living and acting with normally behaviors such as: standing, eating grass, go wanderer.
- Food for livestock is growing in organic methods.
- Reproductions are suitable with their need and condition.

Animal disease management

- Disease management in organic livestock is based mainly on prevention, including breed selection and good management practices.
- A key ingredient in preventative health care is the reduction of stress. Animals should receive housing, pasture and sanitation conditions that minimize the occurrence and spread of disease.
- Vaccinations are allowed but with some limitations.

Disease management

- The health of the organisms is primarily to be ensured by adopting preventive measures (e.g. optimised husbandry, rearing, feeding).
- Natural curative methods shall be preferred in case of a disease.
- Routine and prophylactic treatment with chemosynthetic drugs as well as hormones is not permitted.

Housing

- Housing conditions must provide for enough light and air, freedom of movement and reduction of stress.
- All organic animals shall have access to pasture or an open-air exercise area. Such areas may be partially covered. Rotation of these sites is essential to avoid the build up of parasitic disease.

Breeding

- Breeding systems shall be based on breeds that can reproduce successfully under natural conditions without human involvement.

- Artificial insemination is permitted, but not the use of hormones to induce ovulation and birth.

Mutilations

- Mutilations are prohibited. Examples of mutilations are: tail cutting, teeth clipping, ringing, and castration.

Transportation and slaughter

- Organic animals shall be subjected to minimum stress during transport and slaughter.

Ponds

- By selection of site and the method of management of the farm, the surrounding ecosystems shall not be adversely affected.
- Measures should be taken to prevent fish from escaping and fish from outside getting in the pond.
- The ponds must have retreating areas and shelters and favour the natural behaviour of the fish.
- Ponds should have a sufficient depth (at least 1.5 - 2.0 m).
- Permanent additional oxygen supply is not allowed.

Transportation and slaughter

- The killing of the fish must be carried out in the water or immediately after taking the fish out of the water. It is particularly forbidden to let them choke.
- The fish must be gutted and processed immediately after killing.

Aquaculture breeding

Breeding, species and origin of stock

- Young fish and eggs must come from other organic operations.
- Where suitable, different species shall be kept together.
- As stock for organic production, species naturally occurring in the region shall be preferred.
- The density of the stock must be controlled to not hurt the health and natural behaviour of the fish.

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Fertilizer use

- Organic materials can be used to increase the production of the cultivated water body. However, the fertiliser used must originate from organic farming operations.
- The use of chemical fertilisers such as urea is not allowed.
- It is recommended to combine aquaculture with other forms of animal husbandry or crop cultivation.

Feeding

- All feedstuffs should be from organic farming. Antibiotics and growth-enhancers are not allowed.

International standards

The International Federation of Organic Agriculture Movements (IFOAM) has produced a set of international organic standards, laid down by people from many countries. These give guidelines about what organic farming is and how it should be practised on the farm.

International standards are also used to help countries set their own standards, which take into account different farming systems. Many countries have an organic standards authority which lays down national standards and awards a symbol to farms which have followed the standards. This symbol then allows farmers to market certified organic produce. This is important, as it ensures that people know that the food which they buy is organic.

The main principles of organic farming were laid down by IFOAM in 1992.

- To produce food of high nutritional quality in sufficient quantity.
- To interact in a constructive and life enhancing way with all natural systems and cycles.
- To encourage and enhance biological cycles within the farming system, involving micro-organisms, soil flora and fauna, plants and animals.
- To maintain and increase long term fertility of soils.
- To use, as far as possible, renewable resources in locally organised agricultural systems.
- To work, as far as possible, within a closed system with regard to organic matter and nutrient elements. This aims to reduce external inputs.
- To work, as far as possible, with materials and substances which can be re-used or recycled, either on the farm or elsewhere.

- To give all livestock living conditions which will allow them to perform the basic aspects of their innate behaviour.
- To minimise all forms of pollution that may result from agricultural practices.
- To maintain the genetic diversity of the agricultural system and its surroundings, including the protection of plant and wildlife habitats.
- To allow agricultural producers a living according to the UN human rights; to cover their basic needs and obtain an adequate return and satisfaction from their work, including a safe working environment.
- To consider the wider social and ecological impact of the farming system.