

# GROWING SWEET ORANGE THE ORGANIC WAY



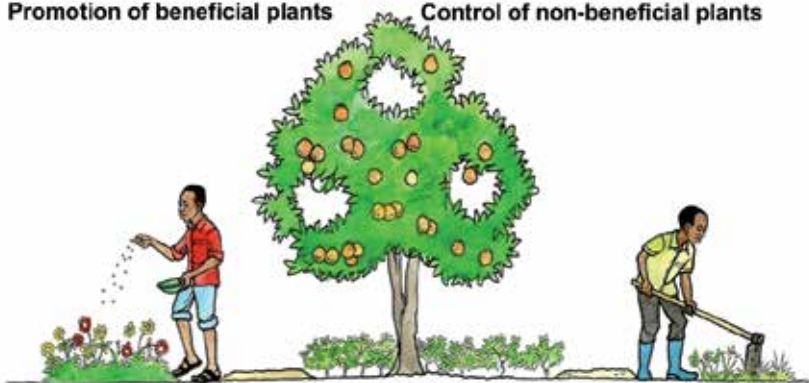
A leguminous cover crop and application of compost in the tree rows increase the productivity of your citrus orchard.

According to the International Federation of Organic Agriculture Movements (IFOAM, 2008) organic agriculture is «a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.»

## Increasing biodiversity in an existing orchard

Promotion of beneficial plants

Control of non-beneficial plants

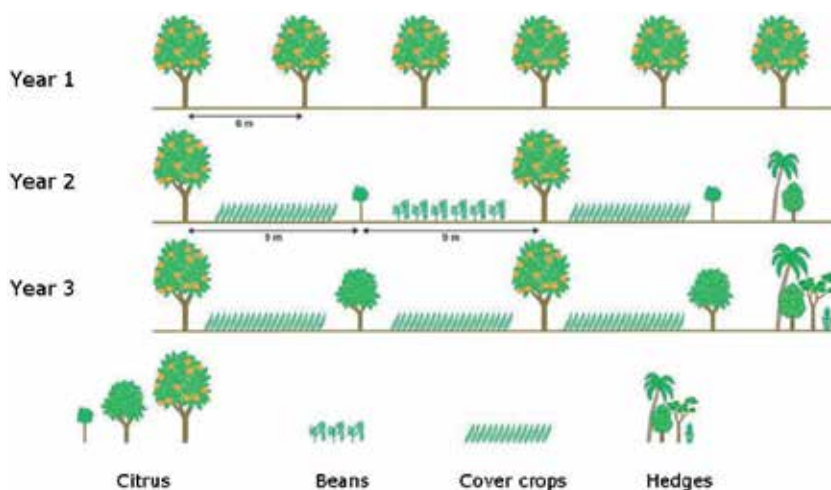


Promote beneficial plants such as leguminous crops and beneficial herbs.

Control non-beneficial plants such as aggressive grasses and twinning plants.

- › Create a diverse orchard in order to decrease the risk of disease infestation and to provide habitats for beneficial insects.
- › Intercrop the citrus orchard with annual crops such as beans and peas.
- › Or plant a legume pasture or a cover crop such as African blue basil between the tree rows.
- › Mix citrus trees with other fruit trees such as mangoes, jackfruit, banana, palm trees to increase the diversity of crops.

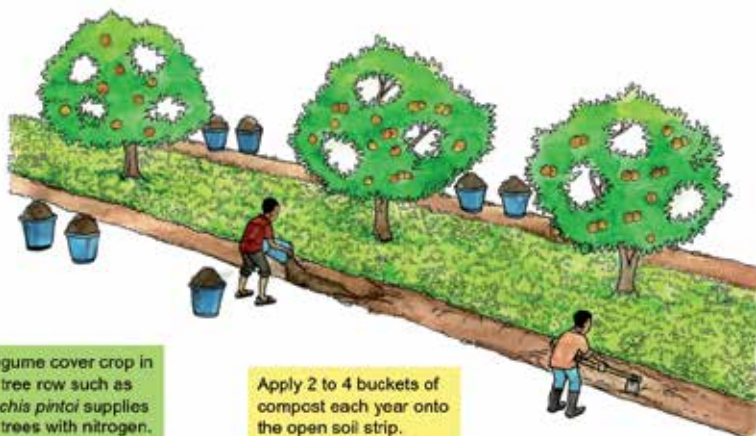
## Improving an existing orchard



- › Instead of planting a new orchard you can improve the existing orchard.
- › If the distance between the tree rows is less than 8 meters, remove rows of trees to increase ventilation and light interception.
- › In the remaining spaces plant legume annual crops or other tree species.
- › On the borders of the orchard you may also plant trees.

## Improving soil fertility

A biologically active soil is the foundation for successful citrus production.



A legume cover crop in the tree row such as *Arachis pintoi* supplies the trees with nitrogen.

Apply 2 to 4 buckets of compost each year onto the open soil strip.

- › Prevent loss of topsoil.
- › Plant a permanent, locally adapted leguminous soil cover in the tree rows, such as velvet bean and lablab, to supply the trees with nitrogen.
- › Apply every year at least 20 kg or 2 buckets of well-rotted cattle manure or compost to each tree.

## Enhancement of plant health



- › Ensure good aeration of the crown through annual pruning.
- › Use resistant varieties and disease-free planting material.
- › Ensure appropriate planting distance for good aeration of the crown.
- › Encourage good soil fertility.

Make best use of preventive measures to ensure healthy trees and avoid heavy infections. Apply the following measures in addition to the ones listed on the left:

- › Encourage natural enemies with cover crops, hedges and flower strips.
- › Maintain proper field hygiene by regularly removing infested fruits and branches from the orchard.

## Proper post-harvest handling of fruits

1. Ensure timely harvesting



Citrus should be picked ripe because it does not continue to ripen after harvest.

2. Wash fruits with a mild detergent and clean water



3. Drip to dry under shade



4. Pack and store well



Avoid high humidity conditions in order to control blue and green mould.

- › Handle fruits with care after picking to avoid damages.
- › Fruits destined for processing should be processed very quickly after harvest to avoid quality losses.
- › Cool storage at 0 to 4 °C allows keeping the fruits for a long period with little loss in quality.