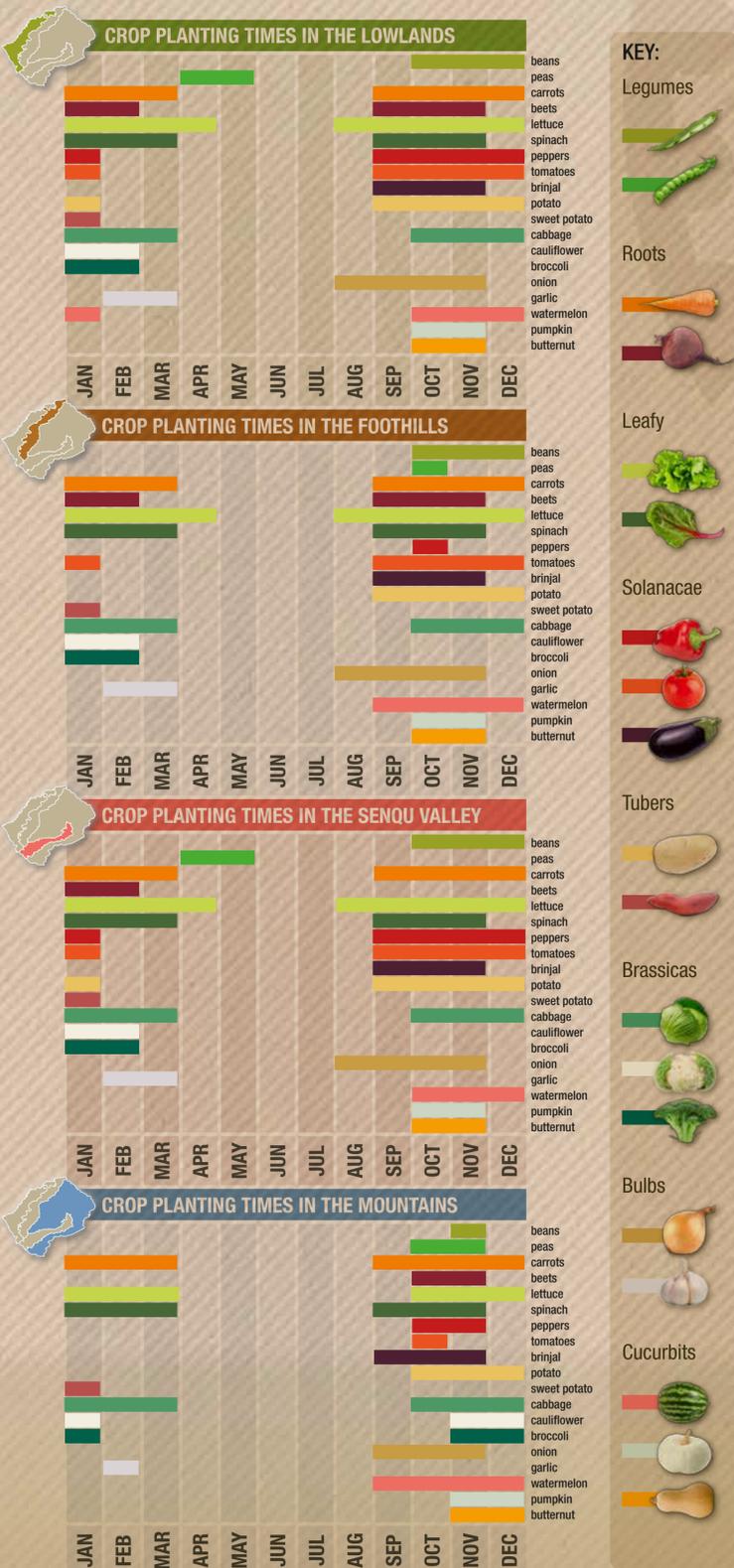
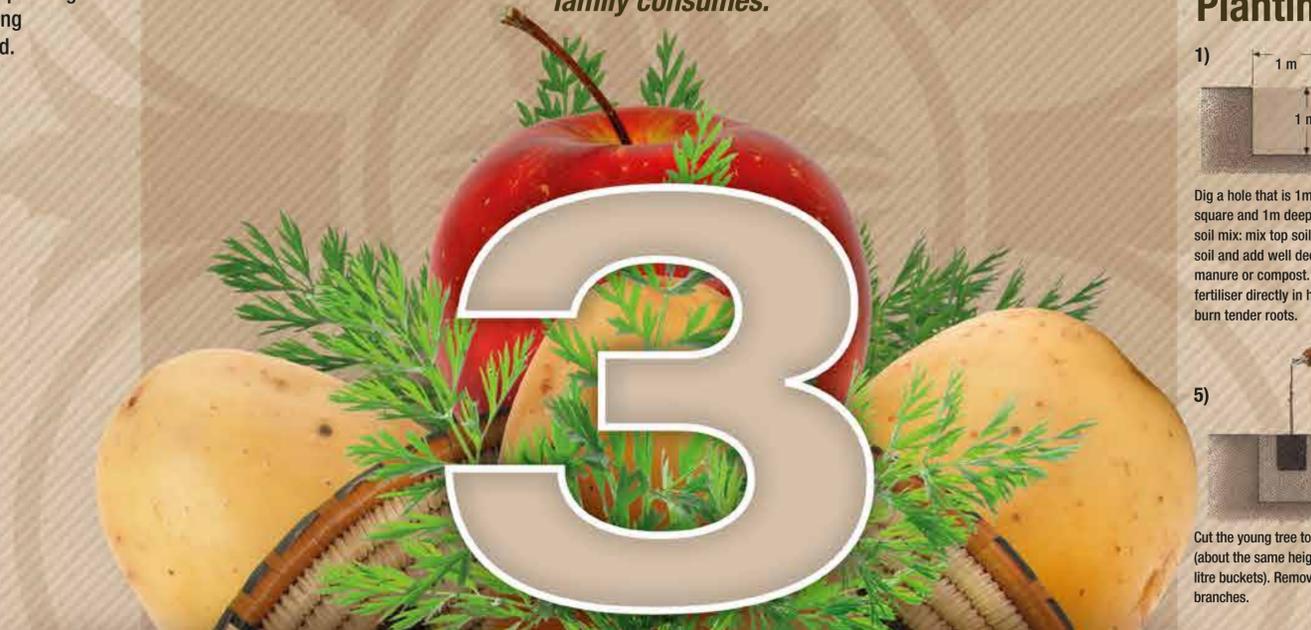


CROP PLANTING CALENDAR

Different crops have different planting times in different areas of Lesotho. Correct planting times will improve our yields. Beware that Climate Change often delays the planting period of some vegetables, thus the use of short season cultivars is recommended.



Planting different varieties of vegetables in the right periods of the year and taking due care of fruit trees will allow us to diversify the food our family consumes.



DIVERSIFY CROPS

INCREASING THE VARIETY YOU GET FROM YOUR HOMESTEAD GARDEN

Different groups of vegetables:

Leafy	Legumes	Brassicas	Roots	Bulbs	Solanaceae	Cucurbits	Tubers
spinach, lettuce, swiss chard, radish, rape, etc.	beans, peas, etc.	cabbage, cauliflower, broccoli, etc.	carrot, beetroot, turnip, etc.	onion, garlic, etc.	peppers, tomato, chilli, eggplant, etc.	pumpkin, butternut, cucumber, etc.	potato, sweet potato, etc.

FRUIT TREE GROWING & CARE

Planting fruit trees:

- 1) Dig a hole that is 1m x 1m square and 1m deep. Prepare a soil mix: mix top soil with sub soil and add well decomposed manure or compost. Do not put fertiliser directly in hole or it may burn tender roots.
- 2) Prune off roots that are dry, broken, discoloured or too long.
- 3) Place the tree in the hole to the same depth at which it grew in the nursery (use the soil mix you prepared to fill the bottom of the hole). The wound from grafting should be above soil level and face away from prevailing winds (to prevent tree breakage).
- 4) Fill the hole with the soil mix prepared earlier. Then firm the soil around the tree. Add organic mulch on top of the soil-filled hole.
- 5) Cut the young tree to about 60cm (about the same height as 2 x 20 litre buckets). Remove all the side branches.
- 6) Make a watering basin about the same size as the planting hole (1m in diameter). Water tree with about 2 x 20 litre bucket.
- 7) Re-check planting depth. If trees have settled too deep, gently lift them by their lower trunk until they are raised to proper height.
- 8) Spacing: fruit trees should be planted 3m apart to ensure enough nutrients and light for good fruit development.

Deciduous trees and vines can be planted any time during their dormant season (the time between leaf fall in autumn and swelling of buds in spring). Planting trees in summer is not recommended as the heat puts stress on the new trees and they will need constant watering.

Watering and feeding fruit trees:

For young trees with small root system, 2 x 20 litre buckets of water per tree every 2 to 3 weeks. Young trees can be fertilised throughout the growing season with organic fertilisers.

For fruit bearing trees (3 years+), water application is especially needed during blossoming and fruit maturation. Add 3 x 20 litre buckets per tree every 2 weeks. Fruit bearing trees should only be fertilised during spring and after fruit harvest.

Or use drip irrigation: make 4 tiny holes at bottom of empty containers; partially bury the empty container into ground, 5 to 15cm, next to tree roots. Fill the containers with water once a week or as needed.

Pest and disease control

Information on pest and disease control affecting fruit trees and how to treat them is available on the back of this Poster.

Pruning fruit trees:

cut the main tip off 65cm from the ground

leave the main outward-facing branches

aim for a 'triangular' shaped fruit tree with a central leader

aim for a 'vase' shaped fruit tree

General fruit tree pruning instructions: Prune in winter, when trees are dormant.

Prune out all branches originating from the base of the tree (suckers) or tender straight twigs originating inside the tree canopy (water sprouts).

Methods of pruning stone fruit trees (e.g. peaches) and pome fruit trees (e.g. apples) are different. Stone fruit trees should form a vase shape allowing light and air circulation.

Pome fruit trees should maintain a central leader or triangular shape (taller than stone fruit trees).



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1. PRUNING FRUIT TREES

Pruning is the selective removal of parts of plants to promote patterns of growth.

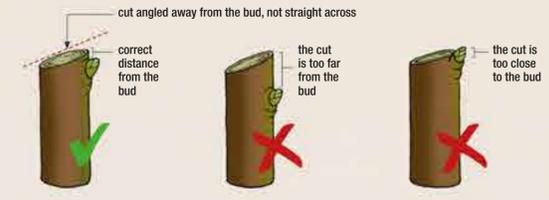
Reasons for pruning

- To control the shape and size of the tree
- To improve light reaching all parts of the tree
- To encourage and maintain abundant growth
- To maintain the health of the tree by removing dead and diseased branches
- To improve fruit growth
- The pruning of branches on fruit trees creates a strong structure that can:
 - With-stand wind without breaking.
 - Carry heavy crops of fruit.
 - Be harvested easily, as the tree is not too large.
- Pruning also increases light and air circulation between the branches of the tree to reduce diseases and help fruit to form and ripen.

When to prune

- Prune in winter when trees are dormant, to prevent damage from frost (from end July to end August).
- Prune lightly in summer only to remove damaged, diseased branches, water sprouts (young, tender branches growing on the inside of the tree) and suckers (branches growing from lower part of the tree next to soil surface).
- The desired height should be kept to enable easy management of the tree such as spraying and harvesting.
- Always prune on dry days, to reduce the chance of getting diseases on the open wounds.

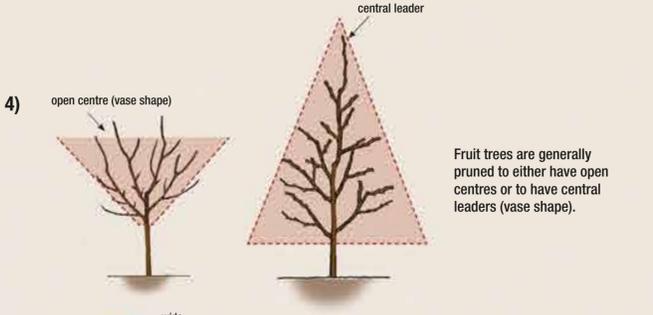
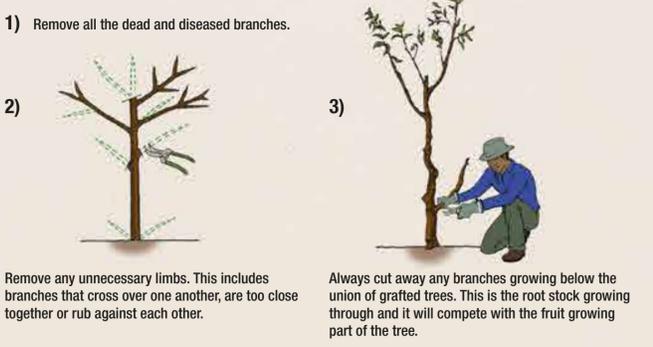
How to prune



When making cuts, don't leave a stub: cut close to the trunk or branch. Always use sharp tools for clean cuts. Dip tools in diluted household bleach in between each cut.

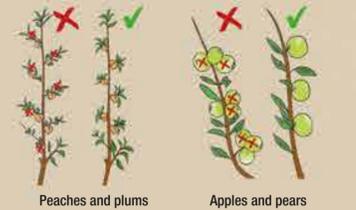
Make pruning cuts just above an outward facing bud. In the spring, this bud will grow away from the centre of the tree, opening it up.

Steps in pruning fruit trees



2. THINNING FRUIT TREES

In stone fruits (peaches, plums, apricots), pome fruits (apples and pears) and citrus (oranges, lemons, naartjies), a very heavy crop of fruit in one year can be followed by very few or none the next year. Branches can also become too heavy and break if they bear too many fruits. It is thus a good idea to thin fruit on an overcrowded tree. This also ensures fewer, but larger fruits, rather than many small fruits.



Start thinning fruits 6-8 weeks after flowering when the fruits are the size of marbles, or small pebbles.

When thinning fruit trees, you should leave about 7-8 fruits per metre of branch, or about 4 fruits per arm's length.

3. EFFECTIVE FRUIT TREE WATERING AND FEEDING

- Water abundantly and less frequently for deep rooted trees.
- Water less abundantly but more frequently for shallow rooted trees.
- Build a watering basin to cover the root area and direct water towards the roots.
- Use drip irrigation.
- Use a mulch to conserve moisture.
- You can use a layer of organic material such as compost, sawdust, bark, wood chips, straw OR it can be inorganic such as black plastic or stone.
- Organic mulch should not be in contact with tree trunks as constant moisture against the trunk promotes diseases.
- Mulch cools the soil in hot weather and prevents freezing in cold seasons.
- Mulch prevents weeds and soil compaction.
- It improves soil texture when it decomposes.
- Fertilise well using manure or compost, or with chemical fertilisers.



10 to 20 litres of well decomposed manure or compost should be added for young trees.



Additional fertilisation with chemical fertiliser can be done if the compost was of poor quality: 4 cups NPK fertiliser per mature tree and 2 cups per young tree.

My name is _____ and I am committed to increasing the variety of crops in my homestead garden!
 'Moho, re ka hola talala'

3

DIVERSIFY CROPS

INCREASING THE VARIETY YOU GET FROM YOUR HOMESTEAD GARDEN

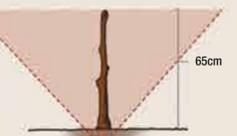
Planting different varieties of vegetables in the right periods of the year and taking due care of fruit trees will allow us to diversify the food our family consumes.

Pruning stone fruit trees

To prune, it is also important to know how a tree fruits:

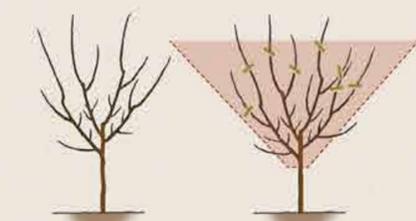


1. At planting:



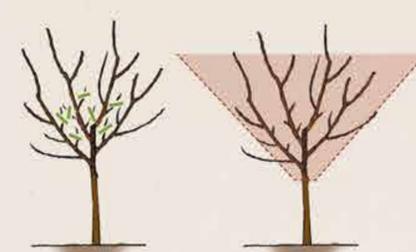
Prune the tree roots and also prune the tree itself to about knee height (65cm). This will force the tree to branch out rather than grow straight up.

2. In the first winter:



Some laterals will have grown on the main branches. Leave 2-3 laterals on each branch; the first lateral should be about 40cm from the main branch and the second further along.

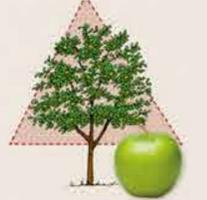
3. From the second winter onwards:



- Trim the tops of the main branches. If you cut them further back than the previous year's growth, it will delay fruiting.
- Shorten the laterals. Cut them 1cm above a flowering bud or cut them back to the joint between the old and new wood.
- Shorten the side branches coming off the laterals. Again leave 2-3 side branches on each lateral.
- Continue with these maintenance pruning practices every winter during the life of the fruit tree.

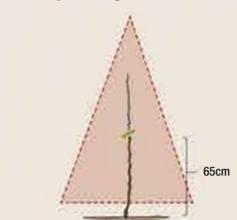
Pruning pome fruit trees

These trees start fruiting around their fifth season in the ground. Fruit is picked green and ripens off the tree.



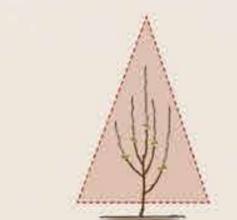
Generally a leader system of pruning has been preferred. Fruit grows on small side branches coming off the laterals and these side branches will bear fruit for many years.

1. At planting:



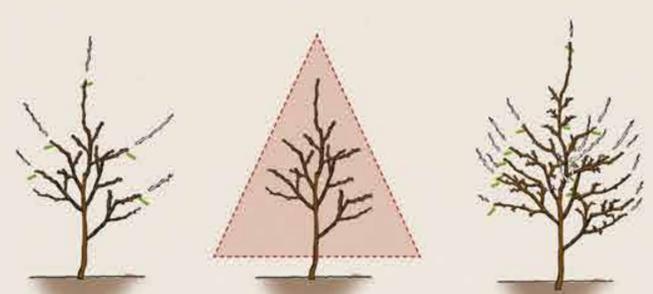
Cut the planted tree back to knee height (65cm).

2. In the first winter:



Trim the main branches, leaving one central branch. Leave 2-3 laterals on each main branch.

3. From the second winter onwards:



Trim the main branches and laterals and leave 2-3 branches coming off each lateral.

4. PEST AND DISEASE CONTROL

The organic remedies for vegetables can also be effectively used for control of pests and diseases in fruit trees. A good balance of intercropped plants will assist in pest control.

Control tips for common fruit tree diseases and pests

PEACHES			
TIME	MOST COMMON PESTS AND DISEASES	CONTROL	
Bud swell	Peach leaf curl, mildew	Milk spray for mildew	
After flowering	Bollworm, aphids	Pepper/garlic spray	
Mid December	Rust, mildew	Milk spray	
Before ripening	Fruit fly	Pepper/garlic spray	
Autumn (leaf fall)	Mildew, leaf curl	Organic milk spray	
Dormant season	Scale	Vegetable oil spray	
APPLES			
TIME	MOST COMMON PESTS AND DISEASES	CONTROL	
At flowering	Mildew	Milk spray or lime sulphur	
Late November	Codling moth	Pepper/ garlic spray	
Mid December	Codling moth, aphids bollworm	Pepper/ garlic spray	
End January	Codling moth, fruit fly	Pepper/ garlic spray for soft bodied insects	
Mid January	Fruit fly, codling moth	Pepper/ garlic spray for soft bodied insects	
Dormant season	Scale	Vegetable oil spray or lime sulphur	

Instructions on how to prepare organic remedies against pests and diseases in vegetables and fruit trees are available on the reverse of poster 2.