

Amaranth

(Thepe-Tswana, Imbuya-Xhoza, Utyutu-Zulu)



Amaranth, a common weed and an ancient crop

Amaranth is a very nutritious leafy vegetable which can be harvested from wild growing or cultivated plants. It is also referred to as morogo (Tswana for vegetables). The plant is adaptable and grows easily under various weather and soil conditions. Various types occur but the green types are less bitter than the reddish ones. Amaranth bears edible, protein rich seeds. Flour ground from these seeds mixes well with cereal flours and increases the protein content.

Soil requirements and climate

- ❖ Although the plants can tolerate drier conditions than most other vegetables, leaf production will increase with higher rainfall. The crop can be harvested in 2 ways. The whole plant can be cut off at a young stage or it can be left to grow to maturity and leaves can be harvested at regular intervals.
- ❖ Amaranth can be cultivated on marginal soils but will produce a better crop in deeper soils. Lower temperatures and shorter days will induce flowering with a subsequent reduction in leaf yield. Leaf production can be sustained by the removal of flowers. Growth ceases at temperatures of below 18 °C.

Planting

Planting can commence as soon as the minimum temperature stays above 16 °C and can continue during the summer months up to 2 months prior to the onset of frost.

There are 3 ways to plant amaranth:

- ❖ Seeds are sown direct into the soil. Loosen the soil as deep as possible and prepare a fine and firm seedbed. The seeds are very small and should be mixed with sand and broadcast in the seedbed to ensure even distribution. After broadcasting, lightly cover the seeds with soil, using a rake.
- ❖ Seeds are sown shallowly in rows. These rows should be 1,5 m apart. Cover lightly using a rake. The seeds must be watered twice daily until the seedlings emerge.

- ❖ Seeds can be planted in seed trays. Transplant them after approximately 4 weeks when the plants should be about 15 cm tall. Transplant into rows 1,5 m apart and with a spacing of 30 cm in the row.

When transplanting seedlings pour water into the furrow or hole into which the plant is to be planted. Wait a few moments for some of the water to seep into the soil. Plant the small plant with its roots in the mud-water mixture and cover the hole.

Never place fertiliser and a plant in the same hole, rather place it approximately 10 cm away from the plant stem in a separate furrow or hole.

Fertilising

Plants can be fertilised by using cow manure at 6 tons/ha as well as commercial fertilisers with a high nitrogen content. Nitrogen is essential for the regrowth of leaves after harvesting. To promote better regrowth a top dressing of LAN (28) (limestone ammonium nitrate) can be given at monthly intervals. If the plants are treated correctly you should be able to harvest leaves every 2 weeks.

Pest control

Weeding is essential until the plants are well established. Insects cannot be controlled chemically because the crop is harvested regularly and it could result in people getting poisoned. Diseases have not been recorded yet.

Harvesting

The plants are harvested only by hand. Young plants can be pulled up or cut 6 to 8 weeks after sowing when they are 200 mm tall. This is done in the case where seeds were broadcasted.

When the plants are harvested at regular intervals start picking the leaves 8 weeks after sowing or 4 weeks after transplanting. Small quantities of leaves can be harvested on a daily basis. In the case of large quantities, intervals of 2 weeks are recommended.

Leaves can be harvested in 2 ways:

- ❖ Pick them one by one when they are the size of the palm of your hand.
- ❖ Break off the leaves around the terminal growth tips of the stems. This is done by pulling one hand up towards the growth tip and breaking off the leaves with the other hand.

Marketing

The leaves can be sold on the informal markets. They must be sold and cooked on the same day they were harvested.

Preparing a dish of morogo

- ❖ Cook the leaves in boiling water
- ❖ Add tomatoes and onions or potatoes and onions
- ❖ Flavour the dish with salt and pepper.



***For further information contact the Division Crop Production at the North West Agricultural Development Institute, Potchefstroom
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Compiled by the National Department of Agriculture and the North West Agricultural Development Institute

Printed and published in the Republic of South Africa by the Department of Agriculture and obtainable from the Resource Centre, Directorate Communication, Private Bag X144, Pretoria 0001