



VEGETABLE AMARANTH



FAMILY

Amaranthaceae

BOTANICAL NAME

Amaranthus spp.

CULTIVARS

A. tricolor, *A. mangostanus*,
A. hybridus, *A. dubius*, *A.*
blitum, *A. cruentus*

COMMON NAMES

Hanekam, Thepe, Imbuya,
Vowa, Aleefu, Fotete, Efo
Tete, Amaranto, Callaloo

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CULTIVATION

PERIOD

Spring (after last frost) to summer

PROPAGATION

They can be direct seeded or transplanted. A fine, firm seedbed is preferred for direct seeding. Seeds should be planted no more than 1.25 cm. (0.5 in) deep. A rate of 272 kg/ha (242.3 lb/A) of seed is considered suitable. Seeds should be watered twice daily until the seedlings emerge. Vegetable amaranth can be grown easily in home gardens. They can also be grown as microgreens.

GROWING CONDITIONS

Soils: Adapt to various soil types. Do best in fertile and well-drained soils. Soil pH: 6.4. Temperature: Seeds need soil temperatures between 18°C to 25°C (64-75°F) to germinate and above 25°C in air temperature for optimum growth. Relative humidity: Hot or hot dry weather is preferred. Water Requirement: Drought-tolerant and cannot withstand water logging. Severe drought induces early flowering and reduces leaf production.

CARING FOR THE GROWING PLANT

Water and control weeds and insects. High levels of nitrogen are essential for the growth of the leaves after harvesting.

DAYS TO MATURITY

About 30 to 55 days from sowing when they reach a height of 0.6 m. (2 ft.)

AREAS COMMONLY CULTIVATED

Lowlands of Africa and Asia, and the Caribbean.

PLANT DESCRIPTION

Amaranths are fast growing herbaceous annual plants with upright growth habit. They are grown as leafy vegetables (e.g. cultivars listed above), pseudocereals and ornamental plants. They grow in tropical and temperate climates.

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HARVEST / YIELD POTENTIAL

When managed correctly, it should be possible to harvest leaves or branches every two weeks. Harvest by picking individual leaves the size of the palm of your hand or breaking off leaves around the terminal growth tips of the stem. Keep leaves in a vented bag and sell on the day of harvest or stored in the refrigerator. Sometimes whole plant (young) is sold in bunches. Harvested microgreens can be packaged in 1 lb. clear clamshells and sold on the day of harvest or refrigerated for sale later.

GROWING STEPS

Buy seeds from a reliable source and start seedlings indoors or in a greenhouse if you want to use seedlings to begin your garden. Prepare your site or containers. Plant when conditions are optimum. Water as needed. Feed with fertilizer when plants are grown. Control weeds, diseases and insects. Harvest when mature.

POTENTIAL PESTS AND DISEASES

PESTS

Snout beetles (Curculionoidea), moth larvae, fleas, stink bugs (Pentatomidae), and blowflies (Calliphoridae). Tarnished plant bug and amaranth weevil are potentially significant pests. If available, use insecticides (synthetic or organic) labeled for vegetable amaranth.

DISEASES

Pythium aphanidermatum and *Rhizoctonia* can be a serious problem in seedbeds. If available, use fungicides (synthetic or organic) labeled for vegetable amaranth.

CULINARY USES

It can be used in stir fries, balls and patties, stews, and cooked as a substitute for spinach.

NUTRITIONAL BENEFITS

Vitamin A, B₂, B₃, B₅, B₆, B₉, C, and K. It also contains Ca, Fe, Mg, K, P, Cu, Na, Zn, and Mn. It also has 2 mg. and 145 mg. of omega-3 and omega-6 fatty acids respectively.

REPORTED HEALTH BENEFITS

Improves electrolyte balance, digestion and vision. Helps in weight management, reduces bad cholesterol and blood pressure. Helps manage anemia and has cancer fighting ingredients. Juice extract can manage diarrhea and is used in cosmetics.

REFERENCES

Ebert, A. W., Wu T. H. and Wang S. T. 2011. Vegetable Amaranth (*Amaranthus* L.). International Cooperators' guide Publication No. 11-754 AVRDC – The World Vegetable Center.

Department of Agriculture, Forestry and Fisheries. 2010. Amaranthus production guideline. Republic of South Africa.