



# AMARANTH

*(Amaranthus spp.)*



Global  
Facilitation  
Unit  
for Underutilized  
Species

enabling deployment of underutilized species



**What is Amaranth** and where does it come from?

**Amaranthus**, collectively known as amaranth or pigweed, is a cosmopolitan genus of herbs. Approximately 60 species are presently recognized, with inflorescences and foliage ranging from purple and red to gold. Although several species are often considered weeds, people around the world value amaranths as leaf vegetables, cereals and ornamentals.

The word comes from the Greek *amarantos*, the 'one that does not wither' or the never-fading flower. And one of Aesop's Fables (6th century BC) compares the Rose to the Amaranth to illustrate the difference in fleeting and everlasting beauty.

## PROPERTIES

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Amaranth (just like quinoa) is a pseudocereal because of its flavor and cooking similarities to grains. It contains exceptionally complete protein for plant sources. It also provides a good source of dietary fiber and dietary minerals such as iron, magnesium, phosphorus, copper, and especially manganese.

### ❖ Food Preparation

The seeds are eaten as a cereal grain. They are ground into flour, popped like popcorn, cooked into a porridge, and made into a confectionery called *alegría*. The leaves can be cooked like spinach, and the seeds can be germinated into nutritious sprouts. While Amaranth is no longer a staple food, it is still grown and sold as a health food. Amaranth species are also cultivated and consumed as a leaf vegetable in many parts of the world. In Indonesia and Malaysia, leaf amaranth is called *bayam*, while in the Philippines it is known as *kulitis*. In India the leaf is added in preparation of a popular dal called *thotakura pappu*. In China the leaves and stems are used as a stir-fry vegetable. In Congo it is known as *lenga lenga* or *biteku tekú*. The leaves are also used in a Caribbean soup called *callaloo*. In East Africa amaranth leaf is known as *mchicha* – “a vegetable for all”. In Nigeria, it is known as *efo tete* or *arowo jeja* – “We have money left over for fish”. It is a very common vegetable, and it goes with all Nigerian carbohydrate dishes.



### ❖ Health

Several studies have shown that amaranth seed or oil may benefit those with hypertension and cardiovascular disease; regular consumption reduces blood pressure and cholesterol levels, while improving antioxidant status and some immune parameters. In traditional medicine Amaranth is especially recommended for people with a low red blood cell count.

### ❖ Other Uses

The flowers of the Hopi Red Dye amaranth were used by the Hopi Americans as the source of a deep red dye. The genus also contains several well-known ornamental plants. Amaranths are recorded as food plants for some Lepidoptera species and used as a catch plant for pest control.

## GROWING

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Because of its importance as a symbol of indigenous culture, and because it is very palatable, easy to cook, and its protein particularly well suited to human nutritional needs, interest in grain amaranth was revived in the 1970s. It was recovered in Mexico from wild varieties and is now commercially cultivated. The two species of grain amaranth most commonly grown are *Amaranthus cruentus* and *Amaranthus hypochondriacus*. The grain amaranths have large, colorful seed heads and can produce over 1000 pounds of grain per acre, though a portion of this grain yield may be lost in harvesting. The crop is drought-tolerant, provided there is sufficient moisture during the early growing period. Frost plays an important role in the harvest of the crop. Since amaranth is an annual crop native to the southern latitudes of North America, it does not mature completely where the growing season is short. A frost is necessary to terminate the crop's growth so that the plant material will be dry enough to harvest.

## HARVESTING

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The best time to harvest amaranth commercially is in dry weather three to seven days after the first frost. Most presently available varieties maintain too high a moisture content to be harvested mechanically before a killing frost.

## PROCESSING

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Amaranth is cleaned with screens, by winnowing, with a fan or other blowing device. After harvesting, it is important to further dry the crop to ensure it won't mold in storage. It can be left on trays in the hot sun or placed near an indoor heat source. Unlike beans or true grains, amaranth has no hulls to remove.





## **Contribution to social development**

The greatest problem facing the development of amaranth as a crop is finding markets for the grain. The crop has only been grown commercially during the 1980s, and the markets are still very small. However farmers that grow amaranth have marketed their crop in a number of ways. Some sell small bags of the whole grain or flour by mail-order. Many of these purchasers are allergic to wheat products. Other growers sell to local or regional health food stores or restaurants. There are also a few middlemen who buy grain from the farmers and market it to the larger health food companies that have developed grain amaranth products.

**The exhibits on show** are just few of many commercial products made from Amaranth:

- Organic amaranth flour
- Instantaneous organic amaranth flour
- Popped amaranth chocolate with honey
- Amaranth breakfast cereal

## SOME PRODUCERS / RETAILERS / DISTRIBUTORS

- ❖ Empresa Agroindustrial Solo Ecologicos Sac  
[www.soloecologicos.com](http://www.soloecologicos.com)
- ❖ Irupana Andean Organic Food SA - [www.irupana.com](http://www.irupana.com)
- ❖ Health Valley Natural Foods - [www.healthvalley.com](http://www.healthvalley.com)
- ❖ Nu-World Amaranth - [www.nuworldamaranth.com](http://www.nuworldamaranth.com)



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