

Amaranth Growing Guide

A versatile, warm-season crop that is both an edible and an ornamental, amaranth can be an ideal choice for school and youth gardens. There are about 75 species of amaranth (genus *Amaranthus*) and countless varieties. Some are primarily grown for their leafy greens, some for their nutritious seeds, and some for their colorful flower plumes.



The leafy greens are easy to grow and harvest. They can be picked when young and tender and enjoyed raw in salads. The older leaves can be cooked and used in dishes where you'd use cooked spinach, beet greens, or chard. Growing amaranth to maturity to harvest the seeds requires a long growing season and some effort to harvest. That said, they are easily cooked into a variety of dishes and offer abundant opportunities to teach about this ancient grain's rich culinary and cultural history.

Amaranth Facts

- Valued as an important food crop since ancient times, amaranth is high in protein, minerals, and vitamins and has been dubbed a "superfood." Commonly found in the health food aisle of supermarkets, amaranth seeds are usually sold as a grain, ground into flour, or used in products such as breakfast cereals. Amaranth contains no gluten.
- Amaranth is classified as a pseudo-grain. Although it is cooked and consumed much like true grains (e.g., wheat, rice, corn), it is not a member of the grass family and thus isn't classified as a true grain.
- Amaranth seeds contain up to 20% protein and are an important source of lysine, an amino acid. Amino acids are the building blocks of protein. Most true grains contain only small amounts of lysine, and corn has none.
- Amaranth has been grown for thousands of years in Mexico, Central America, India, Africa, and China. The seeds were harvested by Aztec and Inca tribes in Mexico and Central America and used as food and in religious ceremonies.
- Amaranth seeds can be heated until they pop, much like corn kernels. In Mexico, the popped seeds are part of a sweet, tasty snack called *alegría*. *Alegría* is Spanish for happiness.
- Callaloo is a popular Caribbean stew that is often made with amaranth greens, notably in Jamaican and Brazilian preparations of the dish. Callaloo originated in West Africa and was recreated by enslaved Africans using locally available ingredients. The term callaloo also refers to a few species of amaranth that are commonly used in the stew.
- Amaranth seeds are tiny — less than 1/16" in diameter — and a single plant can produce up to 100,000 seeds.

How to Grow

You can grow amaranth greens just about anywhere. If you plan to eat them fresh, such as in salads, harvest the leaves when they're tiny (as microgreens) or when they're a bit larger but still tender. If you wait until the leaves grow even larger, they'll get somewhat tougher and more bitter and are best cooked before eating.

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Growing amaranth plants to maturity (for their seeds) requires a long, warm growing season, with harvest occurring 100 to 120 days after sowing.

Choosing varieties

Although all commonly available types of amaranth are edible, it's best to choose varieties bred or selected for specific purposes — either for eating the greens, or eating the mature seeds, or for their ornamental flowers.

- Amaranths grown for their greens are sometimes called vegetable amaranths and include red leaf vegetable amaranth (*Amaranthus tricolor*).
- Look for “grain amaranths” if you're looking for varieties to grow for their seeds.
- Amaranths grown for their ornamental flowers include those with drooping tassels of blooms, such as *Amaranthus caudatus* (common name love-lies-bleeding), and those with upright flower spikes, such as *A. cruentus* 'Red Spike' and 'Hot Biscuits'.

Selecting a site

Amaranth grows best in full sun, especially if you are growing them to maturity for the seeds or to enjoy the flowers. However, if you'll be harvesting the greens, they'll tolerate a location with light shade. Amaranth likes well-drained soil. Amend soil with compost prior to planting to help it retain moisture and to provide nutrients.

Sowing seeds

Although the seeds germinate relatively quickly (7-10 days), the seedlings grow slowly, especially during the first month. If sowing directly in the ground or in raised beds, plant the seeds in rows so you can more easily distinguish the crop plants from the weed seedlings. Note that redroot pigweed, a common garden weed, is a type of amaranth, so the seedlings may look similar to the variety you're growing.

Amaranth is a warm-season crop and won't tolerate frost. Sow seeds outdoors after the last spring frost date, when the weather and soil have warmed. Cover the tiny seeds with the lightest scattering of soil and keep soil moist to aid germination.

You can also start seedlings indoors six to eight weeks before your average last frost date.

Care

When the plants are a few inches tall, thin the seedlings to about 3" apart if you're growing the plants for the greens. You can eat the harvested sprouts! If you're growing them to maturity, thin plants so they're spaced 8-10" apart.

Keep the soils consistently moist until the plants are well-established, when they will tolerate somewhat drier soils. The plants require little or no supplemental fertilizers.

Harvest

Harvest the leaves any time, similar to the way you'd harvest spinach, enjoying the young leaves fresh and cooking the older ones.

To harvest the grain, keep an eye on the flowers as they mature and begin to turn brown. Every few days, lightly brush the flower heads to see if any grain falls. Once you see more than a few grains fall, cut off the entire flower heads. Place them in a paper bag or pillowcase and shake out the seeds. Collect the seeds and remove any debris by winnowing — pour the seeds from one bowl into another in front of a fan. The tiny seeds will fall into the bowl, while the chaff (bits of dried flowers, insects, etc.) will blow away.

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Tips

- Like other tiny seeds, amaranth germinates best in a well-prepared seedbed that has been cleared of rocks and raked smooth.
- Amaranth plants can grow quite large. Most will grow 4 to 6' tall, but some varieties grown in rich soil can reach 8' in height! Plan your garden accordingly so the plants don't unintentionally shade their neighbors.
- Unless you're planting a large patch, expect your harvest of grains to be modest — perhaps an ounce or two per plant.

Enjoying Your Harvest

Use amaranth leaves as you would spinach or other greens.

Amaranth seeds are a fast-cooking "grain." Simply add them to boiling water and cook for about 20 minutes. enjoy them as an accompaniment to savory dishes or create a sweet treat by mixing in some fruit, honey, cinnamon, and/or milk.

The Native Seeds SEARCH website has a recipe for making [Fruit and Nut Alegría Bars](#) (sometimes called Mexican candy) with popped amaranth.

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