



AVRDC - The World Vegetable Center

# Fact Sheet

## Saving Seeds of Amaranth

### Production

Amaranth (*Amaranthus* spp.) is an important food crop in Africa and Asia, especially for subsistence farmers. It is a fast-growing crop that easily grows on a wide range of soils and climates. The plant prefers temperatures between 25 and 30 °C.

There are many *Amaranthus* spp. growing as weeds (for example, *A. spinosus*) around crop fields. For these reasons, local varieties are usually mixed populations.

Seed crops are often produced using transplants. Seedlings with desirable leaf and stem characteristics are transplanted about three weeks from sowing and spaced 45 cm apart in rows spaced 60–80 cm apart. Plants with a small apical inflorescence may be pinched four weeks after sowing to encourage production of secondary shoots.

### Isolation

Amaranth is mainly wind pollinated. A minimum isolation distance of 1000 m between varieties is recommended. Keep plantings free from related weeds to prevent cross-pollination.

### Selection

Plants may be rogued as young plants, removing types with undesirable or off-type color, size or leaf shape. Plants should be rogued again just before flowering, again

removing off-types. Once flowering begins, plants with off-type flowers should be quickly removed.

### Harvesting

A lightening or yellowing of foliage color is an indication that seeds are beginning to mature. Types with an apical inflorescence are usually harvested once. Types with several side shoots are harvested several times as the seeds mature. The harvested seed stalks are placed on a clean tarpaulin or into very fine mesh nylon bags and allowed to dry in the shade.

### Processing

Seeds are easily threshed by hand. The threshed seed is cleaned by winnowing.

### Storage

Dried seeds can be safely stored for at least three years. Place seeds in jars, manila envelopes, cloth or mesh bags, plastic containers, or foil envelopes. The best containers are air-tight, such as a sealed glass jar, metal can, or foil envelope. Protect seed from sunlight.

Store seeds in a cool (below 15 °C is ideal), dry location. Place the seeds in a refrigerator for long-term storage. For short-term storage, keep the seeds in a cool, shady and dry place.



Maturing seed stalks of amaranth

### References

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