

Pillar Orange and Pillar Red: Ornamental Amaranth

ISURF is pleased to announce that two varieties of ornamental amaranth, “Pillar Orange” and “Pillar Red”, are released for licensing.

These varieties may be used as tall specimen plants (170 cm) as well as cut flowers. As a cut-flower ornamental amaranth they do not shed seeds and are therefore cleaner than existing ornamental amaranths.

The lack of seed shedding is due to the use of a rare trait: non-shattering seed-holding cases that lack an abscission zone at their equators and therefore remain closed, holding the seeds inside. The inflorescence is denser than standard ornamental amaranths. The density makes the inflorescence sturdier than other amaranths and tends to discourage insect hiding in the inflorescence by comparison with existing commercial amaranths. The seeds are white and non-dormant, so it seldom volunteers as a weed in the following growth season.

The flower colors were compared with a Royal Horticultural Society chart, and “Pillar Orange” matched best with the GREYED-ORANGE Group N172 B. “Pillar Red” red matched best with RED Group 53A. The colors are expected to be more intense if grown in a cooler climate due to the pigment intensifying effects of cool temperatures and bright light. The orange variety is especially well suited to harvest season decorative color schemes.

The plants are 170 cm tall with an inflorescence 75 cm long in the Ames, Iowa field nursery location. If the central inflorescence is removed, smaller, 45 cm long secondary inflorescences emerge as side shoots that are of a length well suited to routine use by florists. These observations are based on rows three feet apart and plants 4 inches apart in the rows. It seems reasonable that closer spacing would dwarf the plants. Wider spacing encourages small side branches, as can be seen on the row-end plant in the 2022 plant image posted below.

The flowers are mature from late August to mid-October from direct field seeding during the first week of June. Due to the sturdiness of the inflorescence and plants, the harvest season extends about four to six weeks. The performance of transplants started early in the greenhouse and taken to the field was not tested. Experience with amaranths grown in winter short-day length greenhouse environments suggests that plants would mature about three months after planting and grow approximately 30 cm tall.

These two ornamental varieties are from Iowa State University plant breeding based on two amaranth varieties provided by others. David D. Baltensperger and others released the grain variety 'Plainsman'; Peter Kulakow donated an accession of 'Elephant Head'. The new varieties are derived from their work.



2022-09-12 field planting in Ames, Iowa



2006 display at the Molecular Biology Building on the ISU campus featuring Pillar Red and Pillar Orange









