

China Aster Production



955 Benton Ave., Winslow, ME 04901 • Phone: 1-877-564-6697 • Fax: 1-800-738-6314 Email: service@johnnyseeds.com • Web Site: Johnnyseeds.com

CHINA ASTER (Callistephus chinensis)

Also known as summer aster, China asters are a popular and beautiful cut flower. Plants typically grow 12-36" in height and produce a dozen or more blooms per plant, depending on the cultivar. China asters can be grown in the greenhouse or the field. It is possible to grow them year-round in a heated greenhouse or in moderate climates. This annual should not be confused with the perennial asters (September aster, New England aster, and New York aster). China aster is relatively easy to grow except for its susceptibility to aster yellows, which is a disease transmitted by leaf hoppers.

SITE REQUIREMENTS

Choose a sunny plot with fertile, well-drained soil having a pH of 5.5–7.5.

CULTURE

Transplanting is recommended. Sow plants 1/8" deep in flats indoors 6–8 weeks before danger of last frost. Keep the soil consistently moist during germination; water gently with a fine nozzle or mister. For best germination, maintain a consistent soil temperature of 70–72°F/21–22°C. Seeds should germinate in 10–14 days.

Once germinated, the ideal temperature range is 70°F/21°C during the day and 60–62°F/16–17°C during the night. After the first true leaves appear, transplant into cell packs or 3–4" pots. Do not allow the plants to become root bound.

Plants exposed to long days (14 hours of daylight or more) during the first 4–5 weeks of growth will produce flowers more quickly, and on longer stems, than those that are not exposed to long days. Therefore, if growing indoors, you may wish to supplement with artificial light.

Harden-off transplants by gradually introducing them to outdoor conditions after danger of frost has passed. Transplant into the field with a spacing of 6–12" between plants. Planting on black or IRT (Infrared Transmitting) plastic film mulch will aid in warming the soil and weed suppression.

If direct seeding, sow 1/8" deep after the last frost when the soil temperature is 65-70°F (18-21°C). Thin to 6–12".



China aster supported by Hortonova trellis at Johnny's research farm in Albion, Maine.

To help prevent damage from leaf hoppers, cover plants with row cover. Monitor the plants and remove the covers just before flowers bloom.

Plants typically require support to prevent them from toppling over as they get large. Install a horizontal trellis, such as <u>Hortonova</u>, shortly after transplanting, before plants begin to elongate and branch. Two layers of trellis are recommended, one placed at 2" below the top growth of the transplants and a second trellis 12-14" above the first.

Pinching blooms is unnecessary.

HARVEST

Flowers are usually ready to harvest in 110–120 days from seeding. Harvest flowers when the outside ray florets begin to open. If daytime temperatures are warm, harvest early in the morning or in the evening when temperatures are lower. Immediately place the stems in water with a floral preservative. The vase life is typically 7–10 days. Asters store best at 33–35°F.

China aster is not commonly used for dried flowers, however, if you would like to try using it as a dried flower, harvest when flowers are fully open but before the flower sets seeds. Harvest in the morning while temperatures are still cool but after the morning dew has dried. Allow the leaves to remain on the stems and hang small bunches of flowers upside down to dry, choosing a dry, dark, and well-ventilated room for drying the flowers.

DISEASES

The most common disease issue with asters is aster yellows. Aster yellows is caused by bacteria that are transmitted by leafhoppers. The disease causes a yellowing of the plant and flowers as well as distorted, malformed flowers, weak stems, and increased branching. The best means of control is row cover to prevent leafhopper contact with the plants, but take care to remove the cover once the plants begin to flower. Your local agricultural extension office can help you determine if yellow asters is prevalent in your area.

Other, somewhat less common, diseases that can inflict China aster include:

Aster wilt: a fungal infection, aster wilt causes the plant to suddenly wilt and the stem to rot at the soil line. Wilt-resistant cultivars are now available. Aster spotted wilt: spread by thrips, aster spotted wilt causes streaks on the stems or circular patches on the leaves, as well as increased branching. Root rot and root rust: caused by fungus, these diseases cause rust-colored spotsand can result in loss of flower quality and yield.

In all cases of disease, infected plants should be discarded.

PESTS

Leafhoppers, thrips, aphids, and Japanese beetles are the primary pests affecting China aster. They can all cause significant damage. Use of row covers and crop rotation are the recommended means of control. Asters are sensitive to some pesticides; if you plan to spray with a pesticide, test spray a few plants first to make sure the pesticide is not toxic to the plant.



View from above: China aster supported by Hortonova trellis.

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