



# Matsumoto Series

## Callistephus chinensis

[www.highsun.com.au](http://www.highsun.com.au) Ph: 1300 137 584 Fax: 1800 644 015

Available as Plugs & Seed

- Asters have always been particularly suited to warm summer conditions.
- Matsumoto has the vigour and stem strength for easy crop culture in wide ranging conditions.
- Matsumoto is our most popular and reliable variety,

- growing up to 75cm (2.5 feet) high
- Stems are strong and sturdy.
- Medium 5cm flowers in a wide colour range, each with a distinct yellow eye.
- Excellent branching and uniform flowering allows the whole plant to be harvested

- at one time.
- Stems are strong and sturdy.
- Matsumoto Series has shown better heat and wilt tolerance than other varieties.



apricot

also available as a mix



blue



blue tipped white



blush



lavender



light blue



pink



pink tipped white



rose



salmon



scarlet



white



yellow



# Aster Matsumoto

## Cultural Notes

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**Common Name:**

Annual Aster, Japanese Aster.

**Family Name:**

Asteraceae.

**Genus:**

Callistephus.

**Species:**

chinensis.

**Country of Origin:**

Japan.

**Plant Type:**

Annual.

**Transplant Date:**

**Field:** September - November

**Field cool areas:** October - December

**Glasshouse:** Spring, Autumn, Winter. (Plants can be grown year round).

**Flower Date:**

**Field:** December - March.

**Field cool areas:** December - February.

**Glasshouse:** Spring transplant = Nov - Jan. Autumn transplant = July - October. Winter transplant = October - November.

**Harvest:**

Harvest terminal when 3 flowers per stem have developed colour or outside ray florets begin to open. Treat stem with ethylene inhibiting agent like STS. For dried flowers harvest when flowers are fully open.

**Use:**

Cut flowers for fresh and dried arrangements.

**Field Production:**

Transplant into the field in mid November through to December. Warm areas would benefit from an earlier transplant with flowering in November, and cooler areas transplant in October for harvest in December through to January. Bud formation is initiated under longday lengths (16 hours +) and with temperatures over 15-21 °C. Final development of flowers will come under shorter day lengths.

**Glasshouse Production:**

In Glasshouse, plants may be grown year round, with up to three crops being achieved each year. Timing for summer flowering is similar to field growing, with transplanting in September and harvest during the warmer months. For winter and autumn harvests, lighting is important and must be maintained with the use of incandescent lights during the darker months. Plants require at least four hours each evening after sunset from March to November to maintain a day length of 16 hours. Transplanting in Autumn will crop in 4 to 5 months. Temperatures should not go below a minimum of 10 °C. Changes from this daily routine may result in premature flowering and abnormalities. The warmer temperatures as Spring arrives, with the corresponding reduction in the use of lights, will finish the crop appropriately.

**Crop Time:**

Matsumoto blooms in about 9 weeks after transplant. Grown outdoors the main harvest period is from December to March. For production outside this period artificial lights are required to ensure sufficient stem length and flower quality.

**Growing Conditions:**

To escape the abnormal petals caused by short daylight, the warmer temperature at night than greater 10 °C (50 °F), ideally 15 °C (60 °F) is required. Bud formation begins under long-day (16 hours) at temperature over 10 °C (50 °F) with final development under short-day conditions. After buds come out, control water and ventilate the field/area to make the stems harder. Disbud 1st centre flower to promote lateral shoots flowering at the same time, otherwise upto 3 weeks until all flowers open.

**Optimum Growing Temperature:**

15 - 25 °C (60 - 75 °F).

**Soil Conditions:**

Soils must be free of pathogens. Prepare a field/area which should be sterilised and rich with plenty of organic matter and the field/area where Asters were not previously grown. Sakata's Asters are bred to be tolerant against Stem Rot (Fusarium) and can be grown in the same field every other year. Never grow in the same bed two years in succession.

**Transplant:**

When seedlings are at stage of 6 - 8 true leaves, this is the best time to plant. Root bound seedlings will often flower prematurely on short stunted stems.

**Plant Density:**

Plant carefully into production bed spacing 10 x 12.5 cm (4 x 5"), 80 plants per m<sup>2</sup>, avoid planting too deep. Keep at 15 - 20 °C (60 - 70 °F) and water not letting it become dry.

**Height/Support:**

Approximately 75cm tall depending on transplanting time and colour. Asters stretch appreciably if grown under shade cloth. There is no requirement to pinch as Matsumoto have an excellent natural branching habit. Use one tier of support.

**Fertiliser:**

Fertilise with alternate applications of calcium nitrate and potassium nitrate to supply 125 - 150 ppm N. Decrease nitrogen and increase potassium-containing fertilisers when flower buds appear.

**Lighting:**

Crop timing is affected by the ratio of long days (LD) to short days (SD). Increasing LD treatments will increase stem length, but lengthen time to harvest. LD consists of 16 hours of light. Cyclic lighting of 7½ min per ½ hr is commonly used.

**Environmental Factors:**

Natural flowering usually takes place after the longest day. Asters need long days for stem elongation and bud initiation. In principal minimum day length is 16 hours and temperature is 15-21 °C. If temperatures are higher and light intensity stronger, shorter day lengths are possible (eg Qld and WA). After buds are initiated, flowering is hastened by short days. To grow out of season expose seedlings to long days for about two months or until flower buds are visible. Start treatment one week after transplant. After flower buds appear lighting can be stopped. Flowers are ready for harvest about 3 weeks later.

**Pest/Diseases:**

Common diseases of Asters include Petal blight (Botrytis); damping off (Pythium; Rhizoctonia); Tomoto Spotted Wilt virus, Aster wilt (Fusarium, Verticillium: Use crop rotation or fumigation). Caterpillars, leaf hoppers can infect the crop with virus like organisms. Throughout growing, appropriate prevention from Cut Worm or Mite is critical. Never grow in same bed 2 years in succession to prevent Fusarium.

**General Comments:**

pH 5.5-6.5. Water in well immediately after transplanting. Asters are frost tender so outdoor transplants must take place after all danger of frost has passed. Nitrogen is important in the early stages of growth but reduce after buds become visible and increase Potassium for better stem strength, flower quality and flower colour.