

Monarda didyma ***Panorama Mix***

Bee Balm

Culture guide

Uses:

Perennial for border and bedding, medicinal plant, attractive for bees, cut flower production

Exposure:

Sun - Partial shade

Garden height:

35" / 90 cm

Crop time:

10-12 months

Sow time:

March-May for green pots and cut flower production; June-August for flowering in pots the following year

Sowing method:

1-3 seeds per plug, can be sown directly into final pots

Germination:

Germinates in 14-20 days at 68-72 °F (20-22 °C).

Cover seed lightly with vermiculite after sowing.

Growing On:

Transplant plugs after 5 weeks. Grow on at 55-65 °F

(13-18 °C) in a well-drained, humus medium.

Vernalization is required for flower initiation.

After vernalization, begin forcing plants at 60-65 °F

(15-18 °C) for 12 weeks under long days.

Media:

Use a well-drained, growing substrate with 15-30 % clay, 0-20 % parts (e.g. bark, perlite, sand), 1,5-3 kg/m³ complete balanced fertilizer, 0-3 kg/m³ slow release fertilizer (3-9 months), iron-chelate, micronutrients, pH: 5.5-7.0. Field: loamy sandy to sandy loamy soils, with a good drainage. Standard fertilization: 80-100 g/m² of a slow release fertilizer.

Temperature:

Grow at 12-18 °C during day time and at 10-13 °C during night or outdoors. In winter indoors frost free at 3-5 °C or outdoors. In spring the plants start to grow for 10 weeks at 15-18 °C and long day. Cold temperatures at 8-13 °C will increase the cultivation time. A chilling period for flower initiation is required. Cultivation at warm temperatures will require high light levels.

At low light levels cold temperatures are required for a good plant and stem quality.

Fertilization:

High fertilization levels are required. Fertilize the crop weekly with 150-200 ppm nitrogen (at 3 kg/m³ slow release fertilizer in substrate), using a complete balanced fertilizer. Avoid high ammonium levels. Don't fertilize after mid September. In spring fertilize with 100-150 ppm nitrogen of a potassium balanced fertilizer (N: K₂O-ratio: 1:1,5). Prevent magnesium deficiency by applying magnesium sulphate (0,05 %) 1-2 times and in case of iron deficiency apply iron-chelate for 1-2 times. Field: If necessary according to analysis, improve the soil with 80-100 g/m² of a slow release fertilizer per year, applied in several portions.