

Spraying of boric acid increases quality seeds in China aster

The demand of quality blooms of China aster variety Poornima on festive occasions is more due to its white colour since they are used with red roses. Although powderpuff type blooms are preferred for their attractive flowers, they are poor seed setters. Foliar spraying of boric acid (0.1%) given twice, first at one month after planting and the second after an interval of 15 days, is promising for higher seed yield (4.99g/plant, 553kg/ha).

CHINA aster (*Callistephus chinensis*) grown in 3,000 ha. As a cut flower, China aster is highly popular and generally admired for its colours, viz. rose-pink, white, violet, purple, red, light pink and lavender. Its commercial demand is more for white and rose, while light pink coloured and purple coloured ones are not as popular. The cut flowers last long in water. It is grown for bedding and potting. There are several types of asters which are mainly classified according to the form of flowers.

China aster is propagated by seeds. The seed rate is 2-3 kg/ha. Since the demand of China aster Poornima on festive occasions is more due to its white colour. Improvement in seed production technology is the seed of the day.

SEED PRODUCTION TECHNOLOGY

The seedlings are transplanted in evenings when they develop 3-4 leaves. First week of October is ideal time for planting. A spacing of 60 cm × 30 cm is good. Recommended package of practices is adopted.

The data of two years study indicates that foliar spraying of boric acid (0.1%) twice (first spray at one month after planting and second after 15 days) gives highest seed yield (553kg/ha) which was significantly higher compared to untreated control (distilled water) of 1.86 g/plant(201kg/ha). The higher seed yield/plant and seed yield/ha in treatments of boric acid (0.1%) could be attributed to higher average seed weight per head (0.38g) over the control (0.23 g).

The average number of filled seeds/head (on main and axillary shoots) was 57.50 in boric acid treatment compared to 18.75 in the control. The seed setting was also higher in boric acid spray treatment (36.25%) as

compared to the control (34.33%). Boron had a significant effect on improving the reproductive growth of powder puff type of China aster. The pollen viability improved in boric acid treatment to 88.38% compared to 8.97% in the control. There were no marked differences in number of seed heads/plant between the treatments during both the years. Higher seed weight per head and seed weight/plant might be due to better translocation of photosynthates from source to sink in foliar sprayed treatment of boric acid.

There was no marked effect on seed germination due to foliar spraying of boric acid. There were no significant differences in seed germination (after two months of storage under room conditions) obtained through foliar spraying of boric acid (62.5%) compared to the control(62%) plot.

This technique, besides being cost-effective, has good potential for improving seed yield of China aster in powder puff type where seed setting is a problem. This technology has a good scope for improved availability of seeds in larger quantity of powderpuff type

of China aster to farmers.

SUMMARY

The effect of boric acid on improving seed yield in powder puff type could be attributed to increased seed setting, improved pollen viability, increased average seed weight/head and number of filled seeds/head.

For further interaction, please write to:

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Poornima in blooming



Healthy aster seeds