

## **Boron foliar spray increases crop yield**

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Foliar application of boron is also known to enhance crop growth, number of fruits, fruit size and yield of many crops. This technology was tested in some farmers' fields in Bangalore on ash gourd, Pumpkin, and bitter melon. In addition to boric acid, urea was dissolved in the spray solution at 0.5 per cent to enhance absorption of applied boron.

### **Better yield**

A progressive farmer Mr. Umesh of Gopalpur, Hesaraghatta obtained 28-36 per cent increased production at an expense of Rs. 50/ha on boric acid and urea in each crop. Another farmer Mr. Bhadradev Kumar of Muthkur region also adopted foliar application of 25 ppm boric acid along with one per cent urea 25 days after planting to flowering (45 days). He obtained an average increase of two fruits per vine from one and five ash gourds from three in a vine. Against an estimated yield of 56 tonnes from a hectare Mr. Kumar got 49 tonnes per hectare by adopting this technology. In 'Arka Bahar' bottle gourd variety grown at the Indian Institute of Horticulture farm (IIHR) farm, the number of fruits increased from two to three per vine. The weight of the fruit increased to 950gms from 880gms leading to an increase of 50 per cent of bottle gourd fruits.

### **Improved health**

This substantial increase in production is attributed to an increased fruit set caused by improved health of the pollen. A favourable boron status of the cucurbit vine caused: (i) proper growth of pollen tube after fertilization leading to an enhanced fertilization of eggs in the ovary leading ultimately to enhanced fruit set in each vine; and (ii) substantial growth or enlargement of the fruit since every fertilized egg in the ovary releases growth hormones responsible for fruit enlargement leading to a significant increase in its weight. Owing to these twin factors, the farmers were able to get a better yield.

### **Contact**

The farmers Mr. Umesh of Gopalapura can be reached at -9739261883 and Mr. Bhadradev Kumar of Muthkur at 09482307788.  
(Dr. S. C. Kotur, former Principal Scientist (retired), IIHR, mobile: 9449086595.)