



## Effects of Sumagic on Camellia Bud Set

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### Problem and major objectives of proposed research:

Bud set of certain camellia varieties in containers are often sparse which is not desirable by the retail garden centers. Flowering plants obviously have more appeal than non-flowering plants. At a recent IPPS meeting we learned that some work with growth regulators was being done by Virginia Tech University and an increase in bud set of camellias was recorded at 90 ppm using Sumagic. Other literature reveals success in increasing bud set for rhododendrons and mountain laurel cultivars using this product. This test attempted to answer the questions:

1. What effect does Sumagic, a plant growth regulator (PGR), have at 3 different rates on bud set of 3 camellia cultivars and is there a window of time for optimum effectiveness of the PGR?
2. Does the application of Sumagic affect the growth, quality and marketability of the camellias?

### Methods and Materials:

Eight plants each of 3 cultivars of camellias were treated on 3 dates with 3 concentrations of Sumagic plant growth regulator. Concentrations of Sumagic applied to runoff were 90, 60, and 30 parts per million. About 1200 mls of treatment solutions were applied per 100 ft<sup>2</sup> area on 7/1, 7/17, and 7/31, 2002. Eight plants of each of the three cultivars were set aside with no PGR applied as a control treatment. The three camellias evaluated in the test are *Camellia japonica* 'Pink Perfection', 'Professor Sergeant' and *Camellia sasanqua* 'Leslie Ann'. Initial data was collected by CANR staff on each plant recording the height and growth index of each plant. Labeled instructions require that Sumagic be applied in an enclosed space. Camellias are being grown in a 47% shade house.

### Expected Evaluation Data:

All camellias will be evaluated as they bloom for the number of blooms. A quality rating will be conducted to determine any phytotoxic effects and to evaluate marketability of the plants. After the first flush of growth in spring 2003 additional growth data will be collected. A final report will be ready for reporting at CANR Field Day in 2003.