

# New York State Flower Growers

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## Mist Starts Roses

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Mist makes it possible to start dormant rose plants in mid-summer. Last July all of the plants lived when started under mist; whereas, 20% of the plants that were not misted died or were very poor. Plants started under mist in July produced 33% more breaks and 100% more length and weight than plants not misted.

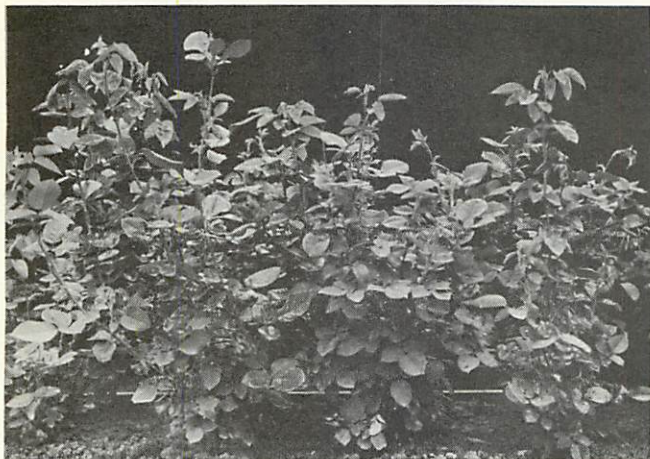
Dormant budded plants started in summer usually produce few breaks. High summer temperatures cause the shoots to grow before the roots are developed enough to supply them with water. The shoots start but dry for lack of water. Mist keeps the foliage wet at all times. It cools the leaves and reduces water loss to a minimum. Shoots which start under mist, continue to grow because roots are not necessary to supply the tops with water. The developing leaf area produces food which stimulates root growth. The roots are balanced with the top after about 6 weeks.

Forty-eight dormant plants, var. Better Times, were started in December, March and May; forty-eight dormant plants, var. Golden Rapture, were started in July. One-half of the plants were misted and the other half were started with normal hose watering. The plants were removed after two months and data recorded.

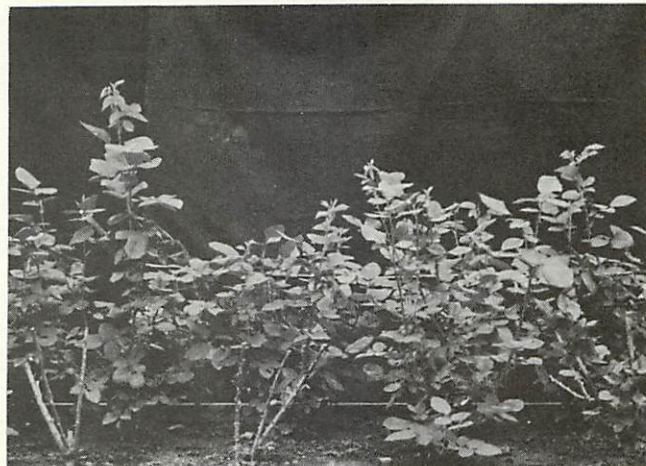
Mist was applied in these experiments as described in the N. Y. S. F. G. Bul. #103. The only change was the addition of another solenoid which stopped all drip and mist action immediately.

The soil was sterilized before each planting. Disease was not observed on any of the misted plants. Mildew was found on the non-misted plants started in July.

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Mist Plot



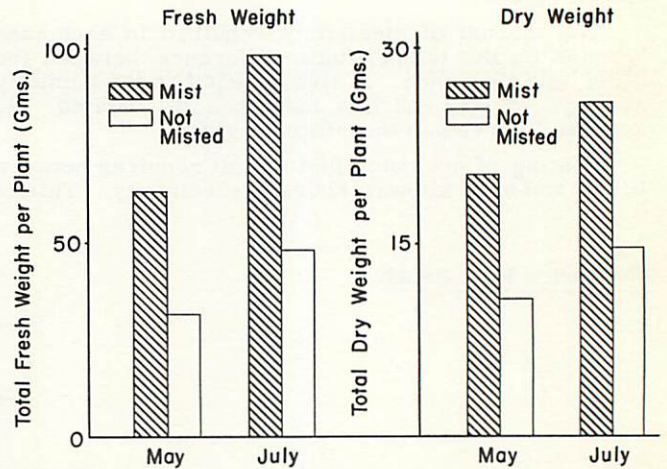
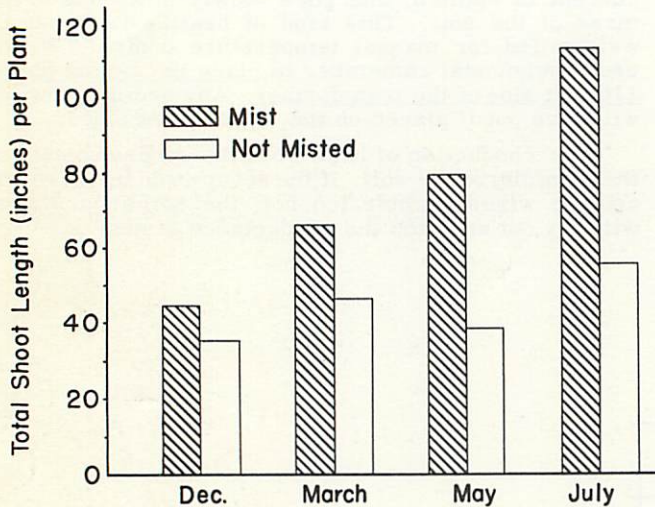
Check Plot

Pictures taken in September--two months after starting.

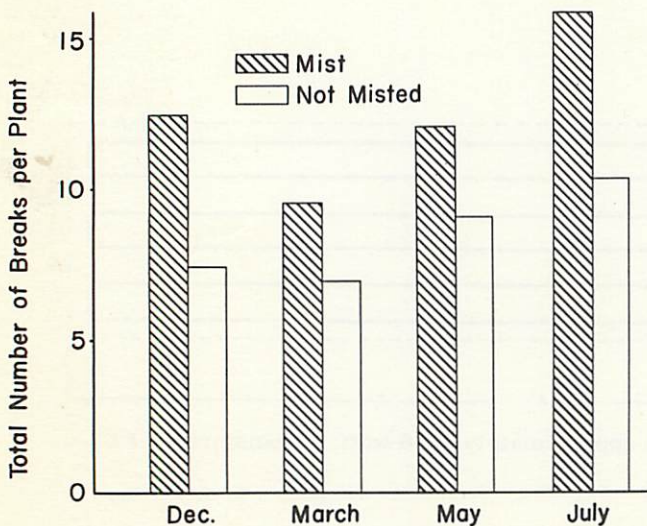
Leaching of the nutrients from the soil was excessive when mist was applied. A complete fertilizer was added weekly, but soil tests always showed that the nutrient levels were low. Changing the placement of nozzles and providing new timer controls to reduce the time the water is applied reduces leaching to a minimum.

In addition to increases in growth, more plants lived when misted. All of the plants made normal growth under mist in July; whereas, of the plants not misted three died and two were very poor at the time of removal.

Starting roses under mist in the summer months allows the old plants to remain in the bench during the profitable spring season. Plants started under mist during the summer produce more growth than plants started in the winter without mist.



Growth was always greater when the plants were misted. Figures 1 & 2 show that the misted plants in all plantings produced more breaks and longer shoots than plants not misted. The fresh and dry weights of the misted plants planted in May and July were about twice as great as from the non-misted plants (Fig. 3). The greatest increase due to mist was on the July planting. This was due to the higher light intensity enabling the plant to produce more food. The greatest amount of drying and injury in any planting occurred on the non-mist plants started in July.



Anyone wishing information on a mist setup and equipment, may write to:

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Your Editor,

*Richard C. Anderson*