

The following short papers by Albert Bremer, Michael Byers, Nancy Gillian, Ron Fox and Bill Molter, Jon Prickerill, Mark Richey, and Fred Bauer were part of a **Plant Propagation Problems and What We Have Learned** panel moderated by Dale Deppe.

Drought Stress on Scion Wood

Albert Bremer

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Generally our budwood is cut from local nursery stock blocks. However, during the summer of 1991 our nursery obtained its budwood from central Illinois which was in the midst of a drought. This created a number of unforeseen problems.

Rootstocks which were to be budded grew very well that summer in Michigan and averaged 3/8 inches in diameter. The small drought-stressed sticks received from Illinois were immediately chip budded. When the small scion wood buds from the drought-stressed stock block were conventionally grafted, cambial contact between the graft surfaces was insufficient or non-existent. To overcome this problem, scion buds were placed on the rootstock graft area at an angle to permit at least minimal cambial contact. The buds were then completely covered with poly tape.

After six weeks buds appeared healthy. However, another inspection in December showed more than half of the buds dead. An attempt to rebud the unsuccessful grafts was planned for the spring. This rebudding would prove to be another mistake.

Dormant budwood unaffected by drought, was cut in January and placed in cold storage for use in the spring. Two major problems occur with spring rebudding. Live bud eyes have their understock tops removed to force new growth. Budded understock with dead buds and existing tops are then chip budded on the opposite side of the rootstock. A narrow poly tie which exposes the bud eye to open sunlight is used so growth can occur. This process is very time consuming and requires skilled labor at a time when other tasks in the nursery are far more important.

The second problem with spring rebudding is that all trees in the same row do not require grow straits, limbing, and staking at the same time. There are two groups of plants at different stages of growth. Many trees lose their central leaders, for they are tied too late in the season. The final result is a large number of trees rejected at harvest time.

Propagation of *Cotinus coggygia* 'Velvet Cloak'

Michael L. Byers

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Our first experience with propagating *Cotinus coggygia* 'Velvet Cloak' was in 1989. Cuttings were taken in late August, treated with 5,000 ppm IBA in talc, and stuck in a peat : perlite mix (1 : 1, v/v) with intermittent mist. Every cutting rotted within 14 days. In 1990 we collected cutting wood that was just completing a