

it. If you moisten it to the point where water drains out freely, it is too wet.

MR. SHAMMARELLO: Thank you for showing your slide and for helping me discuss this subject, Mr. Gray.

(Editor's note). The following paper was not given at the meetings but has been submitted for publication in this section.

## AN EFFICIENT NATURAL ELECTRONIC LEAF

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Last year at the annual meeting of the Plant Propagator's Society I mentioned the use of insect wings as a leaf for intermittent mist control. At that time I was rather hesitant to recommend its general use as it had only one season's trial. It was obvious that some improvements must be made to make it more efficient. To give the leaf a better proving ground, a permanent mist bed, 18' by 6' was constructed and a sectional wooden frame covered with polyethylene plastic was used for a cover. Burlap was used for shading. The nozzles used were the Florida 550A type, set a foot above the sand medium and about 40" apart. Water pressure was maintained between 40 and 60 pounds. Ventilation was given daily by raising the ends of the frames.

Materials used in the construction of the leaf included a piece of plastic 2½" in diameter by ⅜" thick, 2 flashlight battery carbons, waterproof glue and 2 bumble beewings, which were joined by their outer tips with a spot of glue. In addition, sufficient covered cable for leads to the control box and a metal rod to support the leaf in the medium were required. Holes, one inch apart were drilled in the plastic and the carbons inserted, exposing about ¾" on the upper side with the metal tips on the underside. The leads to the control box were soldered to these and covered with waterproof glue. Holes were drilled in the upper ends of the carbons and small tips of carbon were made to fit in them. The wing was placed under the edge of these tips suspending it between the two carbons.

The leaf was placed in the mist frame on June 17th and was kept in operation until October 24th. After the preliminary moving about to find the best location, the leaf was not disturbed during this 4 month period and worked efficiently at all times. It was finally located about 2' from the first nozzle. One observation I would like to pass on was the tendency of the leaf to show polarity around the carbons. One lead was free of deposits, suggesting that by alternating the hook up to one might practically eliminate deposits forming. As a matter of interest, from 3000 cuttings which included 125 species and varieties of woody plants, an overall average of 76% rooting was obtained.

PRESIDENT VANDERBROOK: I would like to extend my thanks to Chairman Bill Flemer and Bill Cole, as well as to the members of this panel. It was certainly an interesting afternoon. We now stand adjourned but will meet in the morning at 9:00 o'clock sharp.

The session recessed at 5:30 o'clock.