



Small Farm Field Day

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PLANT MICRO PROPAGATION USING HOUSEHOLD PRODUCTS

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OBJECTIVE — The focus of this demonstration is to inform small farmers of a new technological advance in agriculture, provide an overview of the micropropagation procedure and to seek individuals who may want additional training from this demonstration.

OPPORTUNITY — New developments are sought to provide North Carolina tobacco farmers with alternative farming practices that have low costs and produce high revenue. Micro propagation is a new development and resourceful alternative to the conventional method for growing plants. The general idea of a kitchen crop is to produce a vast number of plants through micro propagation.

Micro propagation is an important alternative to more conventional methods of plant propagation. It involves production of plants from very small plant parts, grown aseptically in a container where the environment and nutrition can be controlled. The resultant plants are disease free and genetically identical to parent plants.

METHOD — University and industry research labs use high tech equipment to achieve plant production through micro propagation. Farmers and home gardeners can substitute the high tech equipment with ordinary household items to achieve similar results.

Materials needed for this project can be purchased at a local gardening-supply store or pharmacy.

The major steps for completing this procedure include: preparing the growth media, sterilizing instruments and plant material, transferring plant material to the media, dividing plants as growth occurs and transferring plants to a potting soil mix .

Kitchen crops are especially important for plants that may be difficult to grow, have limited amount of seed or for producing disease-free transplants for the field.

DISCUSSION — Kitchen cropping can be done during the fall and winter months so it does not interfere with traditional spring and summer growing seasons. The important concepts to remember are that some plants are difficult to micro propagate and that sterile conditions allow for better results when completing the procedure.

Micro propagation is part of the technological advancement in agriculture. The kitchen crop procedure is simple and can be done with low input costs. This can provide additional revenue and still allow farmers to produce other cash crops during traditional growing seasons.