MICROCOPPICE: A NEW STRATEGY FOR RED OAK CLONAL PROPAGATION

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Abstract: The great demand for red oak (*Quercus rubra* L.) has forced plant propagators to consider viable methods of mass clonal propagation for the species. A process called 'microcoppicing' is presently being developed to help meet such needs. The advantage of this technique is that it proposes to work with oak's natural growth characteristics. The 'microcoppice' hypothesis capitalizes on the well-known ability of oak to form epicormic shoots. This concept should be capable of providing a large number of plants without being overly hampered by oak's episodic growth tendencies. This theory is being developed by utilizing seedlings, stump sprouts, and grafted scions from mature plants. Plant material will be disinfected, cultured on an agar-based media, and rooted *in vitro*. The plants will then be put through an *in vitro* coppicing phase, thus producing a multiplication effect. The derived microshoots will then be rooted *ex vitro*. After acclimation, it is believed that the plants could again go though a coppicing series for further multiplication. This process should be capable of producing a large quantity of plants from mature stock, a goal that has eluded plant propagators working with oak species.

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