EFFECTS OF MAGNETIC FIELD EXPOSURE ON SEED AND VEGETATIVE CUTTING PROPAGATION OF SELECT WOODY SPECIES

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ABSTRACT

A study was conducted to determine the effects of a 1.3 mT magnetic field on germination of pin and northern red oak acorns and on IBA-banded and etiolated vegetative cuttings of apple, Chinese chestnut, and black walnut.

Magnetic field exposure for up to 90 min did not enhance shoot emergence from pin oak acorns. However, northern red oak acorns exposed to a magnetic field for 90 min were more likely to have shoot emergence and emerged earlier than untreated acorns.

Black walnut rooting success was enhanced with IBA-banding and etiolation of shoots, making it a useful technique for clonal black walnut rootstock production. Magnetic field exposure did not enhance rooting success of cuttings for any species, but exposure for 60 or 90 min resulted in greatest root dry weight for rooted cuttings of all species.