

## Cutting Propagation of Little-Leaf Mountain Mahogany<sup>©</sup>

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Superior selections of little-leaf mountain mahogany (*Cercocarpus ledifolius* var. *intricatus*) (CLI) have potential for use in water-conserving landscapes in the Intermountain region of the USA. The potential for propagating CLI by cuttings was determined by selecting specimens from a range of sources and growing conditions at different seasons and with different rooting conditions in a series of individual experiments. Exogenous auxin treatments at high (4000/2000 ppm indolebutyric acid/naphthaleneacetic acid as Dip-N-Grow<sup>®</sup>) and low (2000/1000 ppm of the same material) were also tested. Selection CLI-1 (wild source, Ephraim, Utah, Jan. 2010) rooted at 0, 33, and 42% with zero, low, and high auxin treatments. Selections CLI-2 and CLI-3 (wild source, Mt. Charleston, Nevada, May, 2010) had results of 0, 0, and 8% and 15, 28, and 52% rooting for the respective auxin treatments and selections. Selection CLI-4 (landscape source, Logan, Utah, July, 2010) had 8, 96, and 100% rooting for similar auxin treatments. Finally selections CLI-5 and CLI-6 (landscape source, Logan, Utah) and CLI-3 (container-grown stock plants) stuck in July, 2012 had 6, 2, and 85% rooting with the low rate of auxin, respectively. Overall, two selections had greater than 90% rooting while one had approximately 40% and three others less than 10%. For the three selections that did root, supplemental auxin increased the percentage of rooted cuttings from 0-15% for untreated controls to 42-100% for treated. In contrast, the three selections with poor rooting had little response to exogenous auxin at the levels used. Propagation of CLI by cuttings is feasible, though variable. The variability may be due to accession genetic differences, stock plant growing conditions, or rooting conditions.

