Rooting of 'Illinois Everbearing' Mulberry Cuttings

Jeff McCormack, Ph.D.

'Illinois Everbearing' mulberry (*Morus alba* x *Morus rubra*) is more difficult to propagate from stem cuttings than are some other mulberry cultivars. This is a preliminary report on conditions required for successful rooting of this variety.

Stem cuttings were taken from a single tree on July 30 and rooted in either vermiculite or a well-drained commercial potting soil. Leaves were removed from the lower half of the cuttings. Prior to placement in the rooting medium, the basal end of each cutting was dipped in 'Rootone 10' or 'Rootone F'. Cuttings were then grown under greenhouse conditions for 43 days while receiving intermittent misting. The rooting medium was fertilized once a week with Peter's soluble fertilizer (20-19-18 or 15-11-29). At the end of 43 days, measurements of cutting length, cutting diameter, and root length were taken. Only the longer root was measured for each cutting. Results are shown in Table 1 below:

Table 1: Effect of rooting medium on rooting success

Rooting medium	Number of cuttings	% Rooted	Average root length
Soil + 'Rootone F'	16	6	1.7
Soil + 'Rootone 10'	8	0	---
Vermiculite + 'Rootone F'	16	50	8.3
Vermiculite + 'Rootone 10'	24	21	5.9

The results show that rooting was dramatically better in vermiculite than soil, and that 'Rootone F' enhanced rooting better than 'Rootone 10'. It seems that the fungicide present in 'Rootone F' is important for successful rooting under the test conditions. Rooting was also better in coarse vermiculite than fine vermiculite. Thus, ample aeration and low nutrient levels around the basal end of the cutting are important for root development and inhibition of fungi.

The rooting success of cuttings over 7.5 cm long was compared with cuttings less than 7.5 cm long: Results are shown in Table 2 below:

Table 2: Effect of cutting length on rooting success

Length of cutting	Number of cuttings	Average cutting diameter	Average length of longest root
Greater than 7.5 cm	6	28 mm	12.1 cm
Less than 7.5 cm	8	48 mm	3.1 cm

The results suggest that the length of the cutting may affect successful rooting, but there is no obvious relationship between diameter of cutting and rooting ability. These relationships need to be investigated further using larger sample sizes.

* Note: This article was first published in Pomona: Quarterly of the North American Fruit Explorers, Winter 1985 edition, volume 18, number 1. This version contains some minor editing changes.