

## THE EFFECT OF STOCK PLANT SHADING ON RHIZOGENESIS IN STEM CUTTINGS OF *CORNUS ALBA* L. CULTIVARS

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### Abstract

The effect of shading of stock plants on rooting in *Cornus alba*, 'Elegantissima', 'Sibirica Variegata', and 'Spaethii' was studied. Stock plants were shaded to 50% and 94% of ambient light for 6 weeks prior to harvest of cuttings, and cuttings were treated or not with Rhizopon AA (0.2% IBA) or Ukorzeniacz AB (0.3% NAA). The experiment was terminated after 3 months. The rooting of cuttings was evaluated and the degree of rooting determined. The degree of rooting was evaluated on a 5-point scale describing the development of the root ball. All cuttings harvested from unshaded plants (control) rooted poorly scoring between 1.5 and 2 points. Rooting powders significantly improved the root ball development, to nearly 3 points in *Cornus alba* 'Spaethii', with Rhizopone AA being more effective than Ukorzeniacz AB and in two cultivars it enhanced rhizogenesis regardless the amount of light provided to stock plants. Shading positively affected rooting and the best rooting occurred when cuttings harvested from stock plants were shaded to 50% of ambient light and treated with Rhizopon AA what resulted in 100% of rooted cuttings with the degree of rooting scored 4.5 in 'Spaethii'. Enhanced rooting in cuttings from shaded stock plants was concomitant with decreases in the reducing sugar and sucrose contents and with increases in the total chlorophyll content.

**Key words:** chlorophyll, cuttings, dogwood, IAA, NAA, rooting

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