

Cadmium Phytoextraction Potential of Poplar Clones (*Populus* spp.)

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Biomass production, leaf number and area, photosynthetic and dark respiration rates, leaf concentration of photosynthetic pigments, nitrate reductase activity, as well as cadmium concentrations in leaves, stem, and roots were measured in poplar clones PE 4/68, B-229, 665, and 45/51. Plants were grown hydroponically under controlled conditions and treated with two different cadmium (Cd) concentrations (10^{-5} and 10^{-7} M) in the same background solution (Hoagland's solution). The presence of Cd did not cause serious disturbance of growth and physiological parameters in the studied poplar clones. Cd concentrations in plant tissues reflected external concentrations. In treated plants, root contents increased from 38.57 to 511.51 ppm, leaf contents from 0.91 to 7.50, while stem contents ranged from 1.37 to 9.50 ppm.

Key words: Poplars, Phytoremediation, Cadmium