

8:30–10:00 NEARY, DANIEL G., JERRY L. MICHAEL, GARY W. LENZ, GLENN D. MROZ, and MARTIN F. JURGENSEN. USDA Forest Service, Gainesville, FL, USDA Forest Service, Auburn, AL, and Michigan Technological University, Houghton, MI. **Fate of picloram and hexazinone in a cutover northern forest after treatment with herbicides for site preparation.**

Two cutover northern hardwood stands in Baraga County, Michigan, were aerially sprayed with the herbicides hexazinone, picloram, and 2,4-D to eliminate hardwood stump sprouts prior to conversion to red pine (*Pinus resinosa* L.). Movement of two of these highly soluble herbicides (hexazinone and picloram) in an entic haplorthod soil was measured using tension lysimeters and streamflow sampling. Soil solution collected from a depth of 1 m prior to herbicide application did not contain any residues. Two weeks after application residue concentrations were 77.9 and 26 $\mu\text{g/L}$ for hexazinone and picloram, respectively. Picloram residues in soil solution declined in concentration and, three months after application, were not detectable. Hexazinone concentrations peaked one month after application (101.9 $\mu\text{g/L}$) and then declined below detection limits by three months. Only trace levels (0.5 $\mu\text{g/L}$) of hexazinone and picloram were detected in an adjacent stream three days after herbicide application.