

Evaluating Hybrid Poplar Clones Developed by the Univ. of Minnesota's Natural Resource Research Institute in Michigan's Upper Peninsula: Year-7 Results.

*Paul Bloese¹, Raymond Miller, and Daniel Keathley
Michigan State University

Over 110 hybrid poplar clones (representing four taxa) developed by the University of Minnesota's Natural Resource Research Institute were established at two sites in Michigan's Upper Peninsula. One set of clones was established in a single planting at Escanaba, MI and a second set was planted at Escanaba and Skandia, MI. Height and DBH were measured annually after a three year establishment period. Incidence of *Septoria* leaf spot, *Melampsora* rust, and *Marssonina* leaf spot were also scored in Years 3-7. Differences among clones were significant in each of the five years of measurement for both height and DBH. Broad-sense heritability estimates (H^2) tended to increase over the measurement period, and ranged from 0.22 for height to 0.48 for DBH in Year-7. The magnitude of H^2 estimates warrants continued selection and breeding efforts. However, the selection process will have to account for genotype x site interactions which were significant for each year of measurement, and were approximately equal to clone effects in Year-7. *Melampsora* infection rates in both clone sets were relatively low and did not produce significant variation among the clones or taxa. There were significant differences among clones and taxa in Year-7 for both *Septoria* and *Marssonina* leaf spot, however a group of clones with significantly lower rates of both *Septoria* and *Marssonina* infection could not be identified. Spearman rank-order correlations indicated that *Septoria* was significantly but weakly negative correlated with growth traits at Escanaba, and uncorrelated with growth traits at Skandia.

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¹MSU Dept. of Forestry, 480 Wilson Road Room 126, MI 48824 bloese@msu.edu
517-353-2036