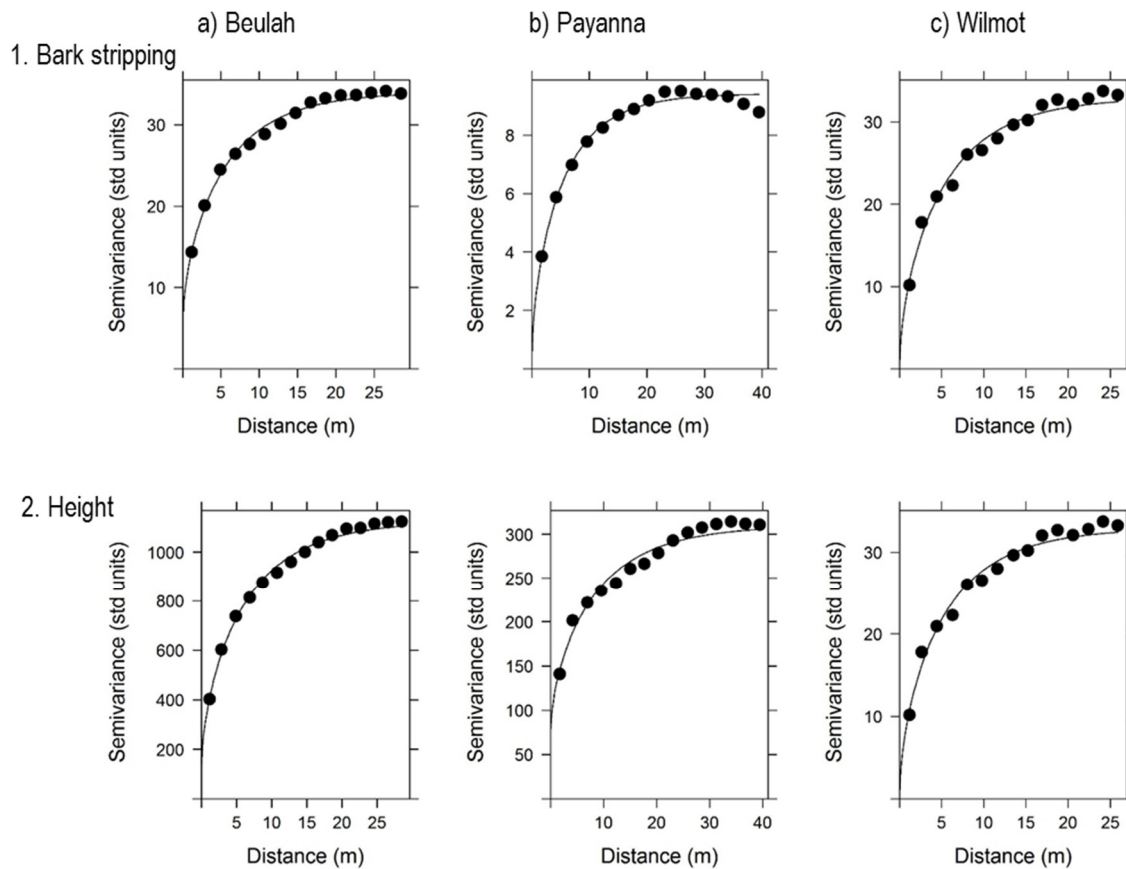**Supplementary Figure S1**: Heat maps of bark stripping scores from the three field sites based on assessments for year 5 (2016) at Beulah and Payanna, and for year 2 (2017) at Wilmot

Supplementary Figure S2: Semivariograms of the residuals generated from the spatial models showing small-scale spatial variation of bark stripping (above) and height (below) for (**a**) Beulah, (**b**) Payanna and (**c**) Wilmot after adjusting for random genetic, replicate and incomplete blocks within replicate effects using mixed models. If spatial dependence is present, semivariance will be small at short distances, will increase at intermediate distances, and will reach an asymptote at longer distances. Estimates are based on assessments for year 5 (2016) at Beulah and Payanna and at year 2 (2017) for Wilmot, except for the height variogram for Payanna that used year 4 height since only one height measurement was taken for this trial.