

# FSTY 405. Assignment 1 — Site Quality

Name .....

Use the SiteTools software, and the information in <http://www.for.gov.bc.ca/hre/sitetool> and <http://www.for.gov.bc.ca/hre/sibec>.

1. From the *Questions Frequently Asked* in the SiteTools web site, indicate three important factors/mistakes that can adversely affect the accuracy of site index estimates.
2. Use SiteTools to plot, in the same graph, site height *vs* breast-height age curves for planted white spruce using both the recommended site index model and the growth intercept model. Use site indices 10, 15, 20, 25 and 30, and age from 0 to 60 years. Hint: set *Plotting to Curve groups* in the *Preferences* menu. Attach a printout.
3. Calculate the predicted heights of lodgepole pine at total age 27 in site 25, using all the equations available in SiteTools for that species. See the notes for each equation, and indicate which ones you would expect to be acceptable for the Northern Interior, and why.
4. Examine the sensitivity to height and age errors by estimating planted white spruce site indices for breast-height age  $26 \pm 1$  years, and site height  $10 \pm 0.5$  m. Use the recommended equation. Present your results in a table as deviations from the central value.
5. Find the SIBEC spruce site index estimate for BGC unit SBSdk1, site series 01. Explain how did you obtain it.
6. What is the *edatopic grid*?
7. In question 5, what does *SBSdk1* mean? What is a site series?
8. Given the site index from question 5, use the Species Conversions tables to estimate the site index for lodgepole pine. Explain how.