

Using a Biomass and Nutrient Calculator

Scientists and forest managers often need to calculate the biomass of a stand of trees in a forest. The results can be used to determine the potential of the forest to be used to make forest products. They are also used to make carbon and nutrient budgets to evaluate environmental sustainability.

This biomass calculator was developed by Natural Resources Canada, part of the Canadian government. It gives a statistical estimate based on thousands of sample trees entered into a database.

Follow these steps to use the calculator.

1. Find the web page that has the calculator. Search for the key words “Canada biomass calculator or go to the link <http://bit.ly/2dKs4H6>
2. Scroll down until you see the Tree-level biomass calculator
3. In the first field select a species, such as black spruce.
4. In the second and third fields enter a diameter and height. For black spruce, enter a diameter of 25 cm and height of 20 m.
5. Click or tap on the Calculate button. This takes you to a results page. You will see the biomass reported for each part of the tree: bark, branches, foliage and wood in a graphic form.

Below that is a graph which repeats the biomass information and also displays an estimate of the nutrient content for each part. This includes the content of nitrogen, phosphorus, potassium, calcium and magnesium.

(Note that not every species has complete data for the nutrition information.)