

## To Log Or To Sugar?

**Background:** Many people who own forested land go through the process of deciding what to do with it. Some of the answers often sound more profitable than others, like timbering. However, often when considering options, people miss the economic value of leaving a woodlot standing.

When valuing a woodlot, there are four types of values that must be taken into account, direct use, indirect use, option, and existence value. *Direct use value* is the value taken directly from the forest, such as timber, food, firewood, and even recreation benefit. *Indirect use value* is the value that forests give indirectly to humans, such as carbon sequestration. *Option value* is the value taken for future direct and indirect use. *Existence value* is a non-use value, meaning it is the value of the existence of the forest and wildlife in it.

To find the total value of a forested lot, you must combine all four of these different types of values. However, direct use values are often much easier to put a dollar amount on than any other type of value. New research in environmental economics is working towards being able to monetize all four types of values.

### Resources and References:

Bishop, J. T. "Valuing Forests: A Review of Methods and Applications in Developing Countries." International Institute for Environment and Development. Retrieved 31 January 2019.

<https://pdfs.semanticscholar.org/5b95/1b1993b70b9b469be76ce6fb8aecb3dc6dc4.pdf>

### Activity:

#### Economic Valuing of a Wood Lot:

**Goal:** To get students thinking about all of the measurable values of a woodlot resource, the intrinsic benefits as well as the monetary ones.

**Note:** This activity pairs well with the "Maple Stand Evaluation" activity because students can use data they collected. If you are using collected data, to get the height of the tree, you can use a Biltmore stick or estimation.

#### Supplies:

- Print out of the worksheet
- Woodlot data (either collected yourself, or from written scenarios)

#### Procedure:

Have students work in groups or alone to fill out the worksheet. You can pair this worksheet with a discussion of different values of forested land as well as renewable resources within a forest community.



## References and Resources:

“Measuring Standing Trees” Ohioline: Ohio State University Extension. Retrieved 31 January 2019. <https://ohioline.osu.edu/factsheet/F-35-02>

“United States Maple Syrup Production” National Agricultural Statistics Service. Retrieved 31 January 2019. [https://www.nass.usda.gov/Statistics\\_by\\_State/Maryland/Publications/News\\_Releases/2018/Maple%20Syrup%202018.pdf](https://www.nass.usda.gov/Statistics_by_State/Maryland/Publications/News_Releases/2018/Maple%20Syrup%202018.pdf)

“How Much Sap Can One Tree Produce?” New York Pure Maple. Retrieved 31 January 2019. <https://www.nysmaple.com/how-much-sap-can-one-tree-produce/>

“West Virginia Timber Price Report – 2018” WV Division of Forestry. Retrieved 31 January 2019. <http://www.wvforestry.com/STUMPAGE%20REPORT%202018.pdf>

“West Virginia Division of Forestry: Region Map” WV Division of Forestry. Retrieved 31 January 2019. [http://www.wvforestry.com/DOF\\_Regions\\_2018\\_FieldOffices120618.pdf](http://www.wvforestry.com/DOF_Regions_2018_FieldOffices120618.pdf)