



Trees, Lumber, & Sustainability

What is sustainability?

Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment.

Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.

Sustainability is important to making sure that we have and will continue to have, the water, materials, and resources to protect human health and our environment.

Problem to Solve: Sustainable Logging

Trees can be thought of as a crop like any other plant we grow to harvest. If managed properly, plants are a sustainable, renewable resource.

Here is one scenario to help you understand and explain sustainability:

You decide to go into the logging business and buy land to plant, grow and harvest pine trees. Pine is a valuable wood resource used for a variety of building materials and wood products. We'll keep the numbers simple to help you demonstrate your sustainable solution in a clear way.

Facts:

- You purchased 5 acres of land
- You purchased 1000 Pine seedlings
- Each acre supports 1000 seedlings
- Seedlings take 5 years to grow to maturity for harvest
- You borrowed enough money for your business to survive with no income from your farm for 5 years. You also have an agreement with the bank that you can borrow the money to purchase 1000 more seedlings each year for the next 4 years.

Based on the facts above, fully describe how you will create a sustainable pine tree logging operation in your Science Journal. If needed, use the drawing on the back to help illustrate your sustainable plan. In addition, list three factors that could negatively impact your plan over time.

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Initial Year

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Start of Year 2

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Start of Year 3

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Start of Year 4

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Start of Year 5