



The Value of Slash Trees and Snags in Forest Ecosystems

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Introduction

Maintaining healthy forest ecosystems is important for sustainable woody biomass (slash) harvest, which is used for biofuel. To manage for sustainable slash harvest, the value of a snag and slash trees need to be considered. The biofuel agency Northwest Advanced Renewable Alliance's (NARA), sustainability team researches the affects of slash removal in forests in order to determine the best management methods for sustainable biofuel production¹.



Students split into groups and receive their ecosystem scenario

The following lesson based on this concept is targeted towards grades 6th through 8th:

Methods

1. Introduce forest ecosystems and their components, biofuel, snag trees, and slash trees.
2. Engage the students in discussion through question and answer.
3. Explain the activity to the students, separate them into groups, and monitor the progress.
4. Let the 5 groups present their results.

4. Compare and contrast the results as a class using a Venn diagram posting the ecosystem pictures on the board.
5. Last pass out challenge questions for the students to answer based on the lesson.

Activity Instructions

Determine in groups how the assigned forest ecosystem scenario affects different components of the ecosystem (wildlife, vegetation, soil etc.). Separate the photos representing ecosystem components on the pages labeled challenges, benefits, or both.

- Group 1 – Scenario-Removal of slash from a forest ecosystem
- Group 2 – Scenario-Leaving slash in the forest ecosystem
- Group 3 – Scenario-Burning the slash in the forest ecosystem
- Group 4 – Scenario-Forest fire in the forest ecosystem
- Group 5 – Scenario-Forest ecosystem becomes a snag forest



Students creating Venn diagram visual

Conclusions

This lesson informed the students about the value of snags and slash trees and how they can affect forest ecosystems. The students can also identify many of the components within forest ecosystems and how they are affected in different scenarios. Through this lesson students can understand the importance of forest ecosystems for biofuel production.



Students sorting ecosystem component photos

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References

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