

Master Steward

Name: _____



Downy Brome or "Cheatgrass"

Summary

Cheatgrass, a type of grass not native to Wyoming, has become a big problem in Wyoming. In the springtime, it can provide forage for cattle and sheep, but it also competes with native grasses and crops such as wheat. By summer time, it dries up and becomes a fire hazard. It also causes problems with the farmers' animals that might be bothered by the cheatgrass seed poking into their skin or getting into their ears. It is a big problem to manage because of the fire hazard, and it grows so easily in many areas.

List the components of the ecosystem described in the summary on this graphic.

Plants

Physical Attributes

Animals

Humans

Management Options

- ◇ **Jill had decided to use a herbicide to get rid of the cheatgrass.** She thought carefully about the decision, and Jill has decided to get rid of the cheatgrass because it is competing with the grasses that the cattle and sheep eat. This herbicide can be expensive, but the areas will have much less cheatgrass for the next three years.
- ◇ **Jason decided to call his neighbors to organize them and make a management plan together.** Together, they have decided to mow the cheatgrass in the spring and reseed with native grasses in order to be sure that both the livestock and wildlife that graze in the fields will have enough food.
- ◇ **Susan is a rancher and doesn't mind the cheatgrass at all.** She doesn't want to apply a herbicide or spend money on another management option. She likes that she can save money by using the cheatgrass as a source of food for her cattle in early spring.



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What is the problem in this summary?

What impact does it have on the ecosystem?

Whose potential management option are you selecting: Jill, Jason, or Susan?

How does your choice change the ecosystem described in the summary (positive and negative)?

How does it show good stewardship of the agricultural resources?



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Scoring

For a student to score “proficient” on this assessment, the following criteria should be met:

- ◇ The student should correctly identify the components of the ecosystem used in the Master Steward agricultural challenge.
- ◇ The student should explain how their solution shows good stewardship.
- ◇ The student correctly identifies the problem in the summary.
- ◇ The student should name a possible impact.
- ◇ The student should select a possible solution.



