

2017 Manitoba Envirothon Provincial Oral Competition Question

There is growing support for the viewpoint that grazing cattle is a land use practice that is detrimental to native grasslands. Your team has been contracted by the Manitoba Sustainable Grazing Committee (MSGC), an organization with representatives from the beef industry, academia, government, and environmental non-government organizations. They are passionate about grassland conservation and beef production and they want your team to develop a public education campaign that will be used to support their efforts to build understanding about cattle grazing as a sustainable land use for native grasslands. They also want this campaign to promote the idea that a balanced diet containing beef is actually a way that the public can support the health and function of native grasslands. The MSGC values balanced and evidence-based communications, so your team needs to do some research before you can communicate the Committee's positions effectively through the public education campaign.

The following steps will help your team research the topic and prepare the two-year MGSC education campaign. Your team will present your work to the Committee at their upcoming meeting at the International Peace Garden on May 27.

1. In your research you have discovered that native grasslands are endangered worldwide and that many endangered species depend on grasslands. Highlight your research related to these points by answering the following:

- a. One key threat to grasslands is land conversion for growing annual crops. Use your knowledge about soils and land use to explain five of the agricultural land capability limitations that make parts of Manitoba's grasslands less suitable for growing annual crops and more suitable for grazing.
- b. Explain two other significant threats to native grasslands in Manitoba.
- c. List up to five nationally listed Species at Risk – two plants and three animals – that have been found in Manitoba grasslands.

2. You have also discovered that native grasslands provide many ecological goods and services (EG&S), supported by ecological processes. Highlight your work related to this issue by:

- a. Listing five ecological goods and services that can be provided by native grasslands in Manitoba.
- b. Select one good or service related to water conservation and explain how it is supported by the ecological processes found in Manitoba's grasslands.
- c. Explaining why native grasslands are dependent on disturbances, especially from use by large herbivores.
- d. Briefly describing a research study (purpose, methods, results, conclusions) that supports why non-use or "idling" of native grasslands by not grazing them reduces the quality of their ecological processes.
- e. Briefly describing a research study (purpose, methods, results, conclusions) that investigates one or more grazing practices that can be used, or are being used by beef producers to support ecological processes and what grazing practices should be avoided.

3. Using what you have learned in your background research for questions #1 and #2 consider what key messages the public should know about cattle grazing as a beneficial management practice for native grasslands. Be sure the public education plan you design for MSGC delivers the following:

- a. Three carefully worded messages that your campaign will deliver to the public about cattle grazing as a land use for native grasslands.
- b. A message to the public about what they can do to support land use practices that are compatible with native grasslands.
- c. An explanation of why your team is recommending these messages to the Committee. For example, describe how these messages support the Committee's position that cattle grazing on native grasslands can be beneficial.
- d. List at least 5 ways in which you recommend the Committee deliver these messages to the public. Explain why you chose those 5 methods.