Science 10

INVASIVE SPECIES MANAGEMENT

Rediscovering Natural Methods

Invasive Species are typically controlled in one or more of five ways. These methods include:

- Prevention

- Chemical Control

- Mechanical control

- Biological Control

- Manual Control

PREVENTION

Prevention focuses on stopping invasive species ______ they get into the natural ecosystem. Typically managed as part of a ______ program. The government may recommend not planting or regulate with laws preventing the import of species it deems too risky.

Mechanical Management

Includes methods such as mowing where the invasive plant species is cut down. The drawback of this method is that plants must be cut down before they ______ and sometimes must be cut down multiple times.

Manual Management

Is a method that includes hand pulling and digging. This is a good method for _______areas, where chemical or biological methods would be risky. The drawback is that this method is very ______ intensive. This method is SLOW.

Chemical Management

This is what most people think of when talking about invasive species management. This method would include pesticides, herbicides, or other ______ that kill invasive species. The advantage of this method is that it is ______ to deploy. However, this method can have negative impacts on surrounding ______ plants. Many chemical agents are also toxic to animal species and humans.

Biological Management

Would include importing ______ that feed on the invasive species but, hopefully, not the native plant species.

Example: Leafy Spurge beetle

Cultural Methods

Cultural methods use ______, irrigation, or fertilization to encourage the establishment of a ______ ground or crop cover to resist invasive plants.

Rediscovering Ways

Natural Methods

A good example of this method is ______ ecosystem specific grazing practices. This is a method in which animal species are introduced in a ______ way to graze on land in a way that fits with how the ecosystem originally functioned before interference.

Example: Bringing in Sheep to graze on the North-East Swale near Saskatoon, this helps by removing invasive species through grazing and helps re-vegetate natural ground cover, such as native short-grass prairie. (See Sheep on Swale Video on Weebly)

Traditional Indigenous Methods

Controlled ______ is a method that imitates natural burning processes for areas that developed to burn regularly. Indigenous groups have been using these methods for a ______ time and it is a method that has gotten much attention from researchers in the last decade.

Controlled burning removes invasive species and aids in the ______ of a biologically diverse ecosystem. As the native plants have developed with ______ and have adapted to semi-regular burns.

Example: Burning Invasive Species infested areas and old growth areas to help in reestablishing native prairie ecology and preventing major forest fires, which are increasingly common with climate change. (See Firekeeper Article on Weebly)