Should native plants be used in landscaping? (Discussion Clip)

Active Listening Questions:
- What are some of the challenges to using native plants in gardening?
- What qualifies as a native plant?

**WHAT:** Following Dr. Reichard's 1994 lecture on invasive plants, "What makes a species a successful invader?" a group of other scientists and other professionals from similar fields discuss the difficulties in trying to encourage ecologically conscious planting. They consider examples of successful promotion of the use of native plants in gardens and restoration and challenges to planting natives mindfully as well as challenges to determining which plants are native and risks associated with the promotion of native plants.

**HOW:** Scientific questions sometimes directly overlap with public actions. In this discussion, scientists are debating what types of planting practices are most likely to help preserve native ecosystems while still meeting public needs and interests, such as the desire for aesthetically-pleasing gardens or effective restoration species.

**WHY:** Discussion and critique of scientific ideas form an important part of the scientific process. By opening their ideas and methods to critique, scientists like Dr. Reichard are able to develop hypotheses and action plans that offer a complex understanding of challenges and opportunities related to their studies.

**SO WHAT:** Introduced plants can become invasive in local ecosystems, outcompeting local species\(^1\). As shown in the associated chart, many of these introductions originate from gardens or other landscape planting. Studies such as Dr. Reichard’s and discussions like the one shown in this clip seek to create practical ways to help reduce introduction of invasive species while still considering the needs and interests of planters.


**BIO:** Dr. Sarah Reichard is a professor at the University of Washington and Director of the UW Botanic Gardens. She has a B.S. in botany and an M.S. and PhD in forest resources. Her primary interests include invasive plant species and the reintroduction of rare native species.
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**TAKING THE REINS**

**Discussion Questions:**
Discuss with a friend or record your thoughts in a journal.
- One of the reasons for trying to protect native species is to help keep different areas of Earth ecologically distinct. Do you think this is important, why or why not?
- What do you think of the argument that for slow growing plants, we should introduce plants based on predicted changes in climate?
- Plants have dispersed to new areas for hundreds of thousands of years. In your opinion, what should the criteria be for whether a plant is considered native or not?

**Quiz Questions:**

**Quiz 1.** During this discussion, which of the following is NOT mentioned as a challenge to gardening with native species?
- a) Native plants tend to be considered less beautiful than introduced plants.
- b) Some nurseries do not have large stocks of native plants and seeds.
- c) Plants sold as native may be genetically different from local populations of the same species.
- d) A normally rare native may become unnaturally common if people plant many of them.

**Quiz 2.** The last speaker in this discussion offers a reason why some ecologists may be in favor of planting introduced species in some areas.

Which of the following best describes an argument in favor of introduced species:
- a) Some introduced plants are more desirable than native plants as food for rare animal species.
- b) In an ecosystem where a native plant has been long absent, introducing an entirely new species is less harmful than reintroducing the missing native.
- c) Changes in climate may cause some regions to become more suitable for introduced species than their current native species.
- d) Studies have shown that introduced species rarely spread beyond the areas where they are planted.

**Glossary Term:**

**Native Plant**

In the United States, plants that were present in their current location previous to European settlement are considered to be native plants.
Go Beyond: Plant Survey

In this video clip, the scientists discuss the presence of invasive plants introduced by gardeners or city planners. How native are the plants in your neighborhood? Find out using this journal activity.

1. Select an area of your neighborhood to survey. If possible, include a nearby park that has "natural areas" in your survey.

2. Before you visit your study site, record what you expect to find, including: plant locations, most common types of plants, and what percentage of native vs. invasive species.

3. Make a plan. How will you survey your area? Will you count each plant individually or make an estimate of what percentage of total plant cover each species comprises? How will you record your findings? You could use sketches, photographs, charts, or graphs.

4. Carry out your plan. Borrow a botany book from the library, and survey your site using your plan. Be sure to record plant type, abundance, and location.

5. Go deeper. Using resources such as local universities, park rangers, botanists from a garden store, or the Internet find out which of the plants you found are native and which are invasive. Are any considered noxious weeds?

6. Compare your findings with your initial thoughts. Where were you correct in your assumptions, and where were you mistaken? For ideas where you were mistaken, what do you think caused your mistaken impression?

7. Bonus: Be a citizen scientist. Some cities or parks try to track the presence of noxious weeds, so your data could prove useful to the city. Call your local city or park managers and see if they are interested in having your data.

Further Reading: