Introducing Prairie Protector and Comparing Gameplay Strategies

Overview

In this lesson, learners play the Prairie Protector game and reflect on their gameplay decisions and describe the tools and land management strategies they used to mitigate encroachment by woody plant species.

Learning Objectives

- Design a land management strategy to mitigate the spread of woody species in the Prairie Protector game
- Reflect and iteratively adjust the land management strategy based on feedback from the game
- Provide a justification for gameplay decisions and modifications made in the land management strategy

Activity

1. Play the Prairie Protector game.
2. Record your gameplay using a screen capture program like Flipgrid or Vidgrid.
3. When you are done recording, reflect on the decisions you made as part of your land management strategy in the game.
   a. Which **tools** did you use (mechanical, fire, or a combination) and why?
   b. What was the **status** of the land you treated (mature woodlands, early presence, seeds, etc.)? How and why did you select these areas?
   c. Where were these areas located (edges, corners, near or far from a neighbor, etc.)? How did their geographic **location** impact your decision to treat?
   d. When did you treat these areas? What was the **sequence** of your treatments?
4. Describe your land management strategy in a reflection video or brief written report.

Reflection and Discussion Questions

Exchange your land management strategy description with another player.
- Discuss your perception of how well your strategy worked:
  - What worked well? What didn't work well?
  - What evidence do you have that your strategy was successful or not?
  - If you were to play again, how might you adjust your strategy?
- Compare and contrast your decisions
  - What was similar?
  - What was different?
- Discuss how your values, beliefs, and assumptions influenced your gameplay decisions.
  - Did you rely on a single treatment tool or use a diversity of tools? Why?
  - Did you treat mature trees first or focus on seeds? Why?

- Our mental models of the world are influenced by past experiences. These experiences shape our perceptions, beliefs, and assumptions about how a system works currently and how we think it will function in the future.
    - What knowledge or past experiences do you have with the system presented in the game?
    - What perceptions, beliefs, or assumptions do you think influenced your decisions in the game?