

Public Perceptions of Prescribed Burning and the Impact of Education Over Time

Izzy Haake¹, Sage Holmes², Braden Hudelson³, Connor Peak²

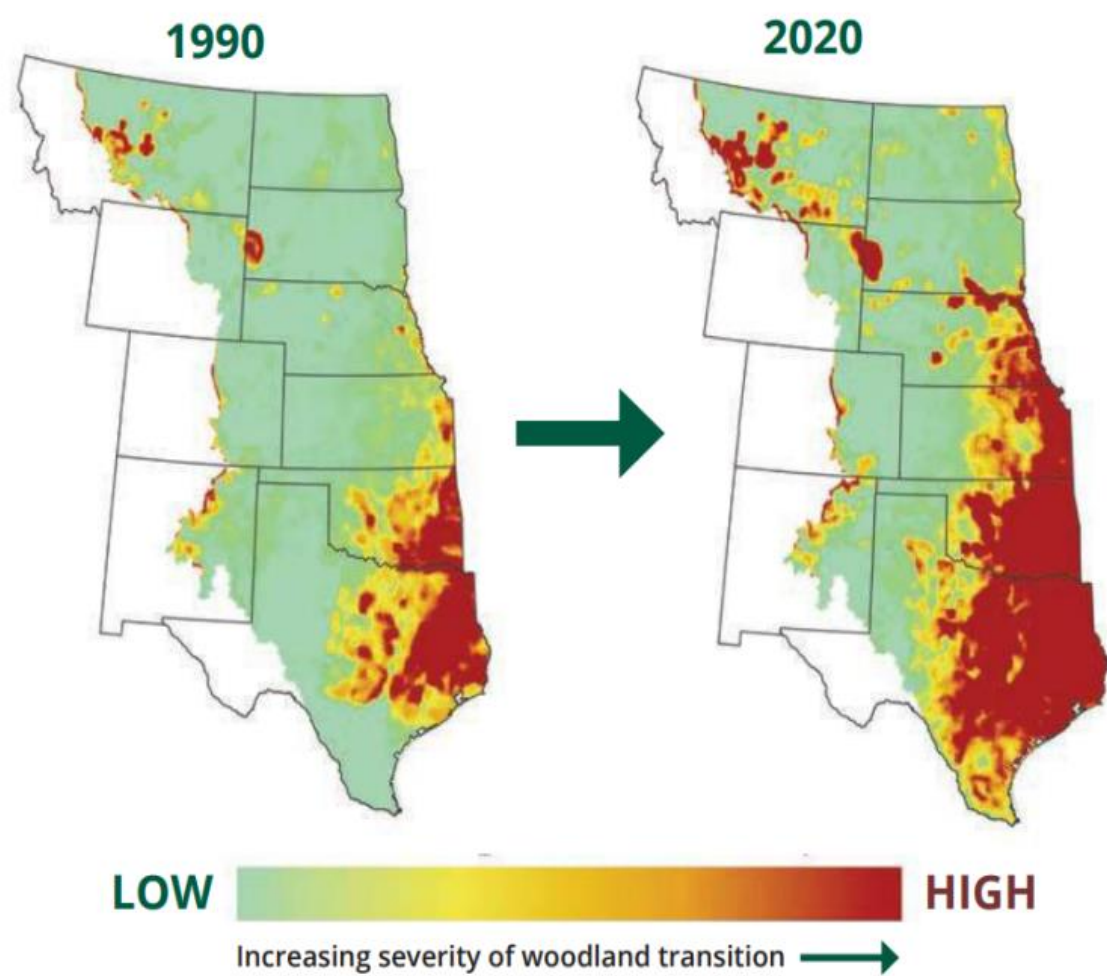
1. Parks management and conservation, College of Agriculture; 2. Environmental Science Program, College of Art and Sciences; 3. Agronomy, College of Agriculture



Introduction

- Prescribed fire plays a vital role in maintaining tallgrass prairie ecosystems and controlling invasive and woody species.
- Public understanding of prescribed burning is often limited, which can lead to misconceptions.
- Living in the Flint Hills, we are exposed to the effects prescribed burns every spring.
- Education about woody encroachment and prescribed burning can benefit students at Kansas State University.

The Great Plains Biome is Collapsing Due to Woody Encroachment



Objectives

- Evaluate public perceptions of prescribed burning before and after a training.
- Identify which aspects of prescribed fire (e.g. soil and water or human health impacts) are most misunderstood.
- Improve awareness and support for prescribed fire practices.
- Provide recommendations for improving future education efforts related to prescribed burning

Methods

- Survey was developed that could accurately gauge the prior knowledge of the subject against the knowledge after watching a quick informational video.
- We gauged demographic information about our subjects by asking how long they have lived in Manhattan, KS, their academic college, and if they have any prior prescribed burn experience or training.
- Survey consisted of 23 questions in 5 sections, 2 before the video, and 3 after. We used likert scale questions to measure changes in opinions and understanding.
- Analyzed and visualized results using Microsoft Excel with stacked bar charts.



- 1 - Strongly Disagree
- 2 - Disagree
- 3 - Neutral
- 4 - Agree
- 5 - Strongly Agree



Results

I am concerned about woody encroachment on Konza.

Before Training
After training

I am concerned about soil erosion after a burn on the Konza Prairie.

Before Training
After training

I am concerned about impacts of woody encroachment on water resources on the Konza Prairie.

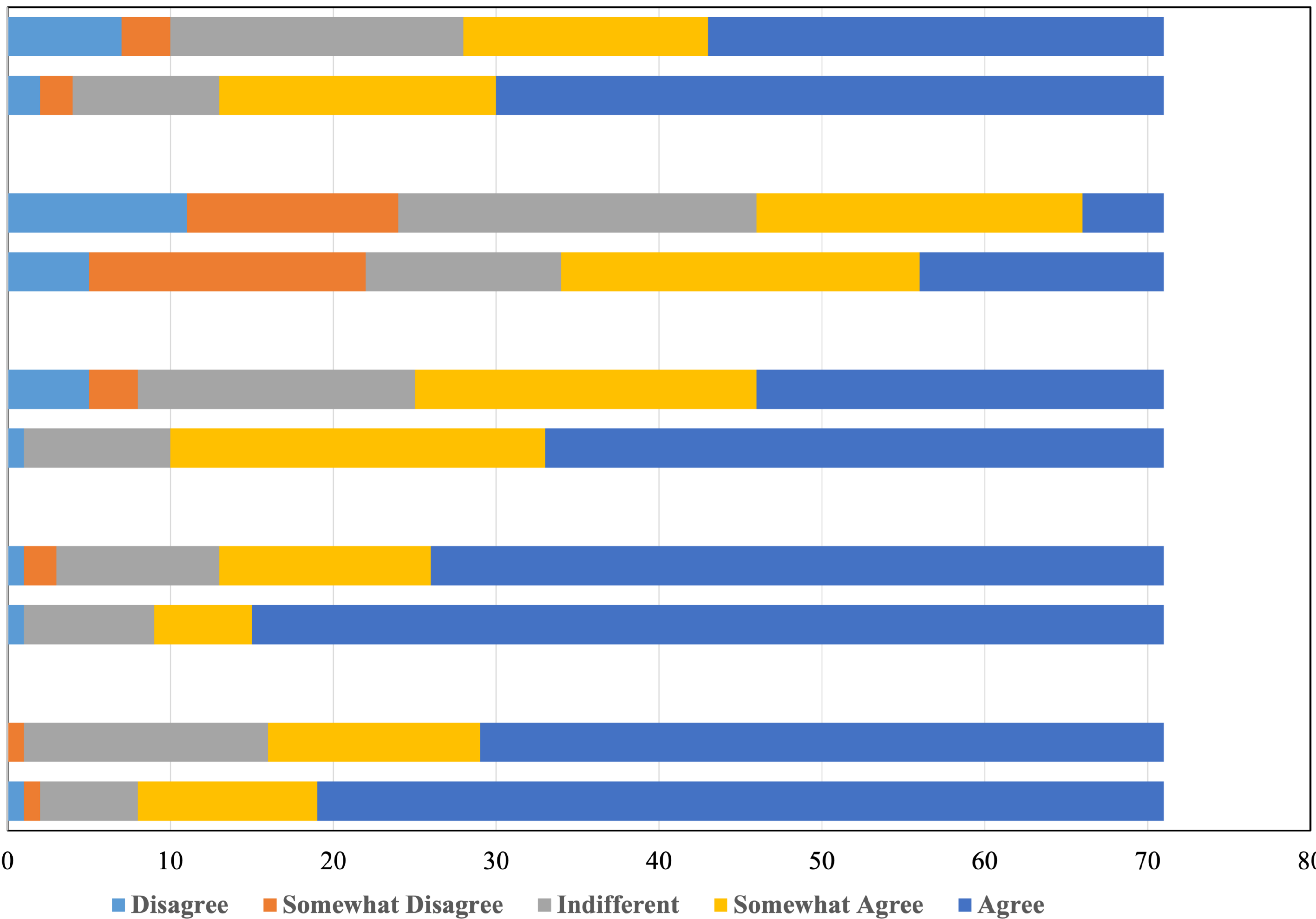
Before Training
After training

: I believe that although there are negative effects from prairie burns, the positives outweigh the negatives

Before Training
After training

Prescribed burning is necessary to prevent/ slow woody encroachment on Tallgrass Prairie ecosystems

Before Training
After training



Results and Discussion

- Majority of the audiences were K-State students from the Colleges of Agriculture and Arts and Sciences ; most had lived in Manhattan 2-4 years
- 47% of respondents did not watch the full 5-minute educational video, as indicated by short completion times
- After the training, “Agree” responses increased across all statements, indicating a shift toward stronger opinions and awareness.
- Statement 2 showed lower levels of awareness about soil and shows where further education is needed
- Environmental education is the most impactful for survey participants
- The quiz portion produced mixed results as many of the subjects did not improve scores from before to after education

Recommendations

- Use short-form content like infographics or sub-1-minute videos to better engage audience
- Provide basic information to students from non-science backgrounds; go deeper for those in agriculture/natural sciences
- Target new residents in the town who do not have a strong background
- Collaborate with professors across various colleges to share educational materials and encourage survey participation

References

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