

Envirothon Study References: Kansas has a fire-adapted landscape. Historically, fire played a crucial role in maintaining the state's ecosystems, occurring naturally every two to six years. However, numerous factors have altered the way fire influences the landscape today:

- **The Role of Grazers:** Historically, large grazing animals helped regulate vegetation across the state, reducing fuel loads and influencing fire patterns. With changes in grazing practices, vegetation accumulation has increased, potentially fueling more intense fires.
- **Impact of Farming Practices:** Agricultural expansion has fragmented the landscape, creating conditions conducive to woody and brush growth. These changes alter fire behavior and increase the need for management interventions.
- **Urban Sprawl and the Wildland-Urban Interface:** As development encroaches on fire-prone areas, homes and structures face an elevated risk of wildfire. Effective mitigation strategies are essential to reduce this growing threat.
- **Longer Fire Seasons and Increased Fire Intensity:** Climate changes and evolving land management practices have led to extended fire seasons and more intense wildfires. These shifts require land managers to adapt their fire use and suppression strategies to balance ecological benefits with safety concerns.

Understanding these changes is crucial for developing effective wildfire management and mitigation strategies, ensuring both ecological health and community safety.

Kansas Wildfire Risk Assessment Portal. (Uses Kansas inputs with a prairie, woodland fuel types and Great Plains weather patterns): <https://kansaswildfirerisk.org/>

National Wildfire Risk Assessment. (National fuel inputs. Southern and western base fuels and vegetation inputs. Still good information): <https://wildfirerisk.org/>

Firewise: <https://www.nfpa.org/education-and-research/wildfire/firewise-usa>

Fire Adapted Communities: <https://fireadapted.org/>

Expanding wildland-urban interface alters forest structure and landscape context in the northern United States – Includes Kansas in the research.: <https://www.nwfirescience.org>

Research shorts on how fire interacts with oak and woodlands:

<https://oakfirescience.com/research-briefs/> and
<https://research.fs.usda.gov/treesearch/42131>

Great Plains Fire Science Exchange Publications:

https://gpfirescience.org/resources/?_resource_categories_widen=publications