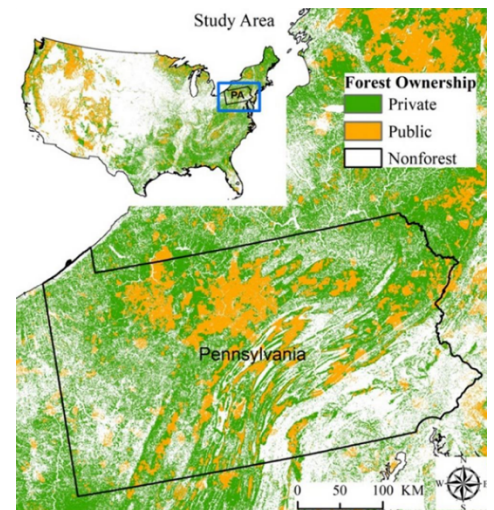


# Pennsylvania Private Forest Landowners Desire to Use Prescribed Fire

Fire history studies indicate that fire occurred frequently in Pennsylvania prior to the suppression era and as early as pre-1492 documented by Marschall and others 2022. Prescribed fire has increased on public lands in PA, with nearly 22,000 acres burned in 2021, however 70% of forest land is privately owned and has not had fire occur. The goal of prescribed fire is to restore oak and pine systems, improve wildlife habitat, and sustain fire-adapted plant communities. A paper titled “[Forest landowner demand for prescribed fire as an ecological tool in Pennsylvania, USA](#)”, authored by Arun Regmi, Melissa Kreye, and Jesse Kreye provides insight into how private landowners view prescribed fire as an ecological tool (low risk of wildfires in PA) to manage their land. This research was funded by the National Institute of Food and Agriculture (NIFA) and the [Joint Fire Science Program \(JFSP\)](#).

## Study Objective and Methods:

- 243 landowners completed a survey that included questions on their knowledge of prescribed fire, its perceived risks, benefits (e.g., oak regeneration, wildlife habitat, forest health), landowner costs, and their trust in prescribed fire practitioners.
- Majority of respondents were male, over the age of 45, and had earned a bachelor’s degree or equivalent. Majority had enrolled in landowner assistance programs and belonged to a private landowner association, indicating a relatively high degree of engagement and perceived value with active management.



## Key Findings:

- Most landowners had limited experience with or formal knowledge of prescribed fire and desired a partnership with state agencies or conservation organizations to have them conduct the burns.
- Most did not perceive a high level of fire risk (including timber value loss) and had high levels of trust in prescribed fire practitioners, likely in part from the increase in prescribed fire on public lands.
- Landowners were willing to pay for prescribed fire services, with the amount varying across several different program scenarios and desired a cost-share program to support the use of prescribed fire.
- There was greater interest in using prescribed fire to improve wildlife habitat and recreational hunting than for enhancing oak regeneration.
- Landowners did not prefer to receive training to conduct burns themselves (e.g., within Prescribed Burn Associations) in contrast to areas such as the southeast and Great Plains.
- The authors conclude that **the social conditions (e.g., perceived benefits to forest condition, low perceived risk, trust in fire practitioners) are favorable to support the increased use of prescribed fire on private lands in Pennsylvania.** They also note that it will be important to locate early adopters, as well as provide increased outreach and education on prescribed fire effects for its use on private lands to gain traction.

**Links to papers:** [Regmi, A., Kreye, M.M. and Kreye, J.K., 2023. Forest landowner demand for prescribed fire as an ecological management tool in Pennsylvania, USA. \*Forest Policy and Economics\*, 148, p.102902.](#)

**Authors:** The authors are from the Department of Ecosystem Science and Management at Penn State University. Arun Regmi is a PhD candidate, Melissa Kreye is an Assistant Professor of Forest Resource Management, and Jesse Kreye is an Assistant Research Professor.

Regarding the study, co-author Jesse Kreye noted “*We know a lot about the ecological benefits of fire in our landscapes and how prescribed burning can be used to achieve those benefits, but without understanding how private landowners may play a role we can’t fully evaluate its potential.*”