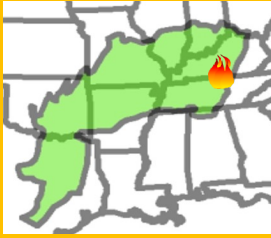


Bridgestone/Firestone Prescribed Fire Demonstration Area

FIRE SCIENCE HOT SPOTS



In this feature, we bring into focus
fire science on-the-ground

Established in 2011, this fire science demonstration site comprises 156 acres of the [Bridgestone/Firestone Wildlife Management Area](#), which is owned and managed by the Tennessee Wildlife Resources Agency (TWRA), and is located on the Cumberland Plateau in White County, Tennessee. Recognizing the regional need, TWRA and University of Tennessee Extension established the site to display the effects of fire frequency and season of burning (timing) on the plant community, and how fire might be used when managing for a particular ecosystem, such as an oak/pine savanna, or particular wildlife communities. This information helps biologists and land managers make better informed decisions related to fire prescriptions in this region. Special focus has been placed on research and public outreach, including tours for professionals and the general public (bottom-right photo) and fire science research projects. Prior to establishment, most of the demonstration area was a loblolly pine plantation (top-left), with little herbaceous / forb growth in the heavily-shaded understory. To date, since prescribed burning began, more than 200 plant species have been identified with no non-native species occurring within the area (bottom-left). Though no seeding or planting has occurred, many plant species valuable to native pollinators, such as wavy-leaf milkweed (*Asclepias amplexicaulis*, inset bottom-left), sundrops (*Oenothera fruticosa*, inset top-right), yellow-fringed orchid (*Platanthera ciliaris*, inset top-left), and other rare and important plants are now found here.



The demonstration area is divided into 7 management units (15–34 acres), each with a different fire frequency and burn season. Most (6 of 7) are burned on 1-, 2-, or 3-year fire return intervals, with each frequency including one unit burned in the spring (April) and one in the late summer/early fall (August–October). One of the seven units is burned at a randomly determined frequency (1-7 years) and season, and contains a mature hardwood overstory. Pictured top-right, is the October 2011 fire in the 3-year fire interval unit; bottom-left shows results from spring burning every 2 years. Under the direction of Dr. Craig Harper (University of Tennessee),

response of the plant community has been recorded each year by graduate students and technicians, then related to habitat requirements of various wildlife species. A self-guided interpretive trail (inset, bottom-right; click [HERE](#)) traverses the different prescribed fire units showing fire effects on the plant community, offering land managers insights on how to manage for particular ecosystems, such as an oak/pine savanna, or for certain wildlife species. Click on each photo for full-size and downloadable images. Photo credits: bottom-right and milkweed: Dan Dey; all others: Craig Harper.

