



Partners for Fish and Wildlife

Native Prairie Conservation in Texas

General Information

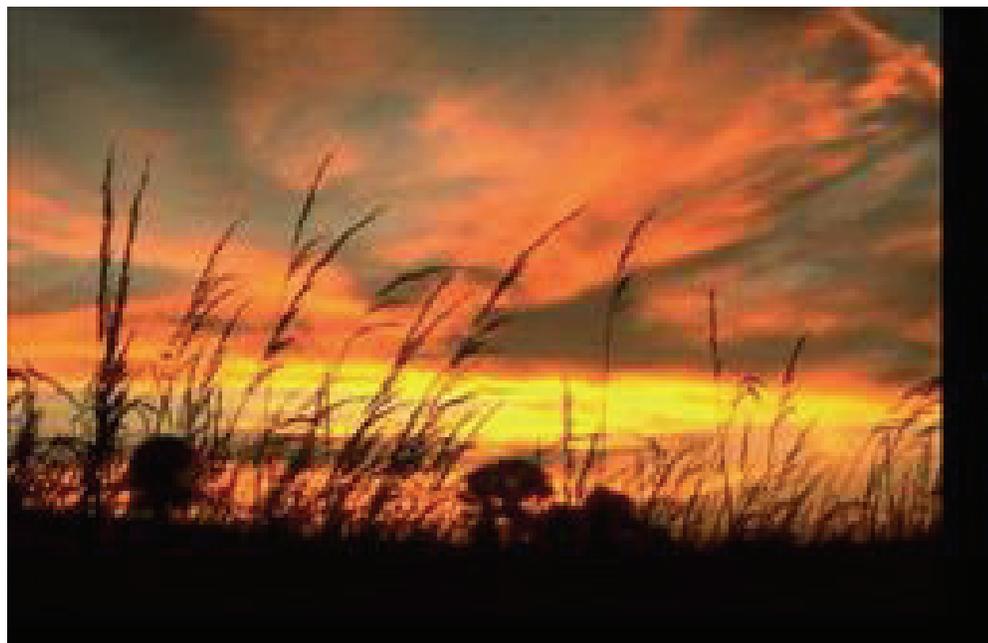
Native prairies are some of our most imperiled habitats in North America. In 1846, Symon Redfield described the tallgrass prairies in North Texas as “We could at almost anytime cast an enquiring eye around us and discover clusters of deer...their slender necks and branching antlers extending above the prairie grass...” Today, less than .004% of this same tallgrass prairie remains in relatively pristine condition. The fertility of the soils and the productivity of the plant communities found within our North Texas prairies encouraged the establishment of farming and cattle operations in the region. What remains of our native prairie is being rapidly consumed by urbanization and brush encroachment.

This informational handout is intended for use by U.S. Fish and Wildlife Service’s (FWS) Partners for Fish and Wildlife (PFW) program cooperators who are interested in conserving, enhancing and/or restoring native prairie on their property in North Texas. Since enhancement and restoration methods vary between geographic areas and the success of these methods vary year to year, specific plans for planting, grazing, mowing, haying, and prescribed fire should be developed with the assistance of the FWS, Natural Resources Conservation Service (NRCS), and/or Texas Parks and Wildlife Department (TPWD).

Planting

Planting a restoration site involves: 1) **site preparation** by herbicide, solarization, fire, and/or tillage; 2) **planting** by haying, seeding, hydromulching, sodding, plugging, and/or reintroduction; and 3) **management** by mowing, haying, grazing, and/or prescribed burning.

Depending upon the planting method and the species being targeted for establishment, late fall, winter, and early spring are the best times for planting. Indigenous seed can be purchased commercially but is sometimes hard to find. If seeds are collected from wild populations, it is best to collect from



plants in the vicinity of and grown in similar environmental conditions (soil, hydrology, etc.) as the restoration site. To insure that plants are adapted to local growing conditions, a rule of thumb when purchasing or collecting seed is to obtain seed harvested within 100 miles of the restoration site. Dependent upon the geographic area and site-specific conditions, generally, indiagrass, big bluestem, little bluestem, switchgrass, sideoats grama, eastern gamagrass, Engelmann’s daisy, Illinois bundleflower, partridgepea, and maxmilian sunflower are the dominant plants to establish at a restoration site.

Mowing, Haying and Grazing

Though it may be difficult to have a haying, grazing, and wildlife operation within the same confinement, properly managed native prairie can produce a forage that is desirable and efficient for livestock feeding. Generally, mowing, haying or grazing a restoration site should be deferred until plants are well established, unless limited mowing or controlled grazing in early spring will benefit the grass by removing competition. In most instances, plants should be well established by the third growing season following seeding. However, depending upon site and environmental conditions (i.e.

drought), further deferments during succeeding growing seasons may be necessary to encourage better stand establishment or increased plant vigor.

Once established, to maintain plant diversity and plant vigor, grazing and resting periods should be alternated so that the stand is not grazed or rested at the same time each year. A rotational grazing system can help ensure proper periods of grazing or rest. The length, timing, and intensity of grazing or rest should be developed in coordination with the FWS, NRCS, or TPWD. Grass gauges can be established to judge the “take half:leave half” rule of thumb (25% consumption by livestock; 25% loss by herbivory, insectivory, and trampling; 50% residual production).

The timing of mowing or haying is critical to ensure the success of the restoration site. In order to allow for ground nesting birds to have fledged their young, to ensure that the majority of spring forbs have seeded, and to ensure enough residual production for winter cover for wildlife, the window for cutting should be no sooner than early July and no later than one month prior to the average date of the first freeze/frost in the area. Cuttings should only occur in an average



climatic year and no cuttings should occur in a drought year. As with grazing, cuttings should not occur at the same time each year.

Prescribed Burning

Burning is the natural mechanism by which prairie renews itself. Fire prevents woody plants from establishing, stimulates seed germination, replenishes nutrients, and allows light to reach young leaves. In most instances, winter burning following the first growing season after establishment changes the restoration site from an annual plant community to one dominated by perennial plants.

Based upon the available fuel and management objectives, restoration sites can be burned every one to three years. Burns have the potential, however, to impact invertebrate and other animal populations; therefore, entire tracts should not be burned at one time. A rule of thumb is to burn only one-third of the tract each year.

Historically, prairie fires occurred in the summer as a result of lightning strikes. Native Americans often burned prairie in the winter and early spring. It is most common to burn when plants are dormant, but an occasional burn during the growing season enhances plant diversity.

Prescribed burns should not be conducted on PFW projects unless coordinated and planned with the FWS, NRCS, or TPWD. There are important legal ramifications and air quality issues to address prior to conducting a prescribed burn. Burning requires much planning and coordination with neighboring landowners, volunteer fire departments, and agencies (city, county, state, and federal).

If restored or degraded prairie sites are properly managed, wildlife will flourish and landowners will receive added economic benefits through increased vigor and production of desirable plants, improved water quality and water quantity, improved soil health and nutrient recycling, and better livestock performance.vironment.

For Further Information

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August 2006