

## **VEGETATION CHANGE SINCE 1980 AT FORT LARNED NATIONAL HISTORIC SITE**

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*Abstract:* Fort Larned National Historic Site is divided into 12 management units. One unit remains in native prairie, and the others were seeded to prairie species in the 1960s. Some units were seeded to a mixture of buffalograss (*Buchloe dactyloides*) and blue grama (*Bouteloua gracilis*). Seeding mixtures with mid-grasses were used in other units. A vegetation survey of all units was conducted in 1980 using a modified step-point procedure. The units seeded to buffalograss and blue grama were well-maintained by mowing, but many of the other units not managed with mowing had high levels of the annual cheatgrass (*Bromus tectorum*) and Japanese brome (*Bromus japonicus*) and annual broadleaf species such as kochia (*Kochia scoparia*). Smooth brome occurred in a few of the units, but usually it comprised less than 1% of the botanical composition. Data were collected in 2008 and 2009 from each unit using the same technique as in 1980. Botanical composition in most units deteriorated significantly since 1980. Smooth brome (*Bromus inermis*) became the most abundant species, while buffalograss and blue grama now comprise only a trace of the vegetation. The Fort Larned National Historic Site is a small park, and it has been difficult to coordinate a crew to meet a regular burning schedule. Therefore, these units were burned only sporadically in the past 30 years and often not at the proper time to give the competitive advantage to the desired species. The result is a conversion from warm-season prairie species to a cool-season introduced species.