

Fire and Goats:

A Potent Mix for Restoring West Texas Rangelands

When Indians and native wildlife were its only inhabitants, West Texas was much different than it is today. Instead of dense brush, there was a sea of grass only occasionally dotted with large trees and patches of shrubbery along waterways.



Lightening and fires intentionally started by Indians to drive game or replenish buffalo ranges kept brush under control and the grass growing. Experts say these fires occurred every five to 10 years. Back then, fire was a good thing.

But when settlers arrived, fire became the enemy. By the late 1800s, fire suppression and overgrazing made regular range burning a thing of the past. With no regular fires to control the brush and no grass left to compete with it for water and nutrients, brush exploded to the levels we see today.

Now most West Texas rangelands are choked with dense stands of juniper and mesquite surrounded by a thick undergrowth of prickly pear cactus. These ranges now have fewer and poorer forage and habitat than once existed here.

Texas AgriLife Research experts have found that once fire and other noxious plant control measures stop, it only takes 30 years for grasslands to degenerate into unproductive brush jungles and prickly pear patches. Our researchers' job is to find ways to keep that from happening. Our agency's goal is to develop natural and sustainable ways to manage the range.

When handled correctly, fire remains the most cost-effective way to control brush and promote grass growth; but our homes, towns and other property make the huge fires of yesteryear impossible. Today's brush control fires require the development of careful "prescriptions" or plans that ensure the

safety and protection of people and property while assuring that brush is controlled.

The Texas AgriLife Research Station at Sonora, established in 1916, is on the frontline of developing fire prescriptions for the Edwards Plateau region. Station personnel not only develop state of the art fire prescriptions, they also teach people how to use them. The 500 member Edwards Plateau Prescribed Burning Association is a direct result of the station's successful promotion of safe and responsible use of fire in controlling noxious plants.

In our modern society, fire can no longer stand alone as the only natural brush control method. Strange as it may seem, goats are a natural complement to fire for slowing the growth of brush. Goat browsing can cut juniper stands by half and can actually increase plant biodiversity, when properly managed over many years. The animals can naturally tolerate chemicals some noxious plants release to keep other animals from eating them. Texas AgriLife Research is selectively breeding goats to increase the amount of juniper in their diets. By identifying individual goats that eat more juniper, their goal is to make an already effective method of biological control of juniper even better.



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