

Fire Department Uses Torches to Help Its Neighbors

Dalton F. Merz

Who would guess that an all-volunteer fire department could help ranchers improve their rangeland and wildlife habitat. In Doss, Texas, the Volunteer Fire Department heads a community project of neighbors helping neighbors use prescribed burning. Ranchers offset the "free" service provided by the fire department by making voluntary contributions. The firemen at first were involved only to watch in case the fire escaped but soon learned that a prescribed fire is much different than a raging wildfire, which usually burns under unfavorable conditions. As the volunteer firemen, most of whom are ranchers, became more experienced with each prescribed burn they learned the art of burning, which involved learning how and when to use the torch depending on the various environmental conditions. The firemen and ranchers eventually agreed that burning is a desirable tool to improve rangeland.

SCS gives technical assistance to landowners and operators through the local Gillespie County Soil and Water Conservation District. District Conservationist Jonny Ohlenburg of Fredericksburg, Texas, helped Hahn develop his first burning plan. The detailed burning plan specified that the headfire burn from the northwest, with a 30 to 40% relative humidity range, 5 to 10 mile per hour wind velocity, with air temperatures from 40 to 70 degrees fahrenheit, and burning to take place in January, February, or March, with moist soil conditions, and other details. In February 1983, all the conditions listed in the burning plan occurred. Previously, Hahn and the fire department had preburned a blackline. When the conditions were right they set the fire and watched, along with several other curious producers who were on hand, as the 9-mile-an-hour northwest wind carried the fire across the pasture toward the blackline. "It went like clockwork," Hahn



Henry Louis Welge, a volunteer fireman from Doss, Texas, serves as fire boss while other members of the fire department light backfires with drip torches. Welge communicates with other firemen with a two-way radio.

Warren Hahn was the first producer to try the practice in this community. Following a presentation by William Reeder, a range conservationist for the Soil Conservation Service (SCS), about prescribed fire, he decided to try it on a 172-acre pasture. Hahn, had a Great Plains Conservation Program (GPCP) contract on the land and several of his neighbors were members of the Doss Fire Department. They offered to help burn the pasture, which was infested with ashe juniper (cedar).



Oak re-sprout at ground level on Hahn's ranch following the prescribed burn. Since that initial burn in 1983, Hahn has used a chain saw to take down the cedar and has applied two more prescribed burns, in 1985 and 1989, to completely clear the pasture. The last burn was the best one.

said. "The only problem we had was the green cedar didn't burn well." Since that initial burn in 1983, Hahn has used a chain saw to take down the cedar and has applied two more prescribed burns, in 1985 and 1989, to completely clear the pasture.

The last burn was the best one. For the first time, the entire 172 acres burned and the cedar and prickly-pear cactus were brought under control. Hahn runs cattle and Angora goats together in one herd on a planned grazing system. The goats help control oak sprouts. The livestock are rotated through six pastures. While one pasture is grazed, the other five are rested. Burning Hahn's pasture

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Hahn runs Angora goats to help control oak sprouts which are in reach of grazing animals because of the prescribed burning and grazing management program on the ranch.

has also produced other benefits: available forage has tripled, there has been a large increase in desirable forbs, edible woody plants are more accessible to livestock, and water springs and seeps have been restored.



Jonny Ohlenburg, District Conservationist with the SCS, points at an animal lick created by animals licking a wet seep on the Warren Hahn ranch. The former wet spot is now a live, free-flowing perennial water spring. The spring was restored due to Hahn's range management, which included cutting with a chain saw and applying three prescribed burns to the 172-acre pasture.

Since the first burn for Hahn, burning plans have been developed for seven other producers in the Doss community to burn about 2,200 acres of rangeland. Henry Louis Welge, also a rancher and member of the Doss Volunteer Fire Department, uses his neighbor's help. The fire department only helps with prescribed burning when

a detailed fire plan has been prepared. Others involved are the Soil Conservation Service, Texas Parks and Wildlife Department, and the Texas Agricultural Extension Service. Welge applied his first burn in 1988, but the previous year he rested the pasture during the growing season to grow enough forage or fine fuel to support a burn. Otherwise, the fire would not burn uniformly. When conditions are favorable, Welge plans to continue using the technique to improve his rangeland. The vegetation grows very quickly in the spring after a winter burn.

Welge says he approached the fire department about assisting him with his prescribed burn mainly as a safety precaution in case the fire got out of control. Ralph Rode, also a member of the fire department, says from 8 to 20 people help with each burn. It is written into the fire department's policy—they'll provide a fire truck and volunteers who wish to help with prescribed burns.



Rancher Warren Hahn (right) shows Harlan DeGarmo, Chief Range Conservationist with the SCS from Washington, D.C., indi-angrass, a tall climax grass which now exists on his ranch. The area was previously occupied by ashe juniper (cedar) and other poor plants.

Producers in Texas burn an average of 165,000 acres per year on rangeland and pastureland. A similar amount of privately owned land is burned each year by the Texas Forest Service for woodland improvement. Prescribed fire on Conservation Reserve Program (CRP) land is steadily becoming a viable option, especially on heavy producing forage grasses like lovegrasses and blue-stems. This will increase the demand for community involvement with prescribed burning.

This Doss Community project has demonstrated prescribed burning is a great tool if carefully used, planned, conducted and managed properly. Fire is natural for most plant communities in Texas. The trick is to do it in a prescribed and safe manner.

The articles in this color section were submitted by authors from the USDA Soil Conservation Service. They represent successes in range management by private landowners, proud individuals who are striving to improve their lands for generations to come.