



# Burned but Not Lost

Pasture management after wildfires can take many shapes.

Story & photos by **Kay Ledbetter**, Texas A&M AgriLife Extension Service



► Wild alfalfa is an example of a deep tap-rooted plant that can help with the healing of the pasture.

**S**hort-grass native prairie to Old World bluestem-seeded pastures, grazed and ungrazed pastures, herbicide-treated to untreated pastures — a traveling caravan made its way across the Panhandle five months after a March 6 wildfire to see how the burned land was healing.

Tim Steffens, Texas A&M AgriLife Extension Service range management specialist in Canyon, traveled with the producers to discuss pastures in Roberts and Lipscomb counties.

“A wildfire is never a good thing, but we had good subsoil moisture and good follow-up moisture afterward, and the fire was moving swiftly, so it didn’t just cook plants, so recovery should be relatively quick,” Steffens said. “That’s what we want to look at: How is this land recovering?”

Plant responses and water are primary considerations, he said.

“It’s all about the water in this part of the country,” Steffens said. “We can’t do anything about how much water falls, but we can do something about how much water gets in the ground, how long it stays

there, or whether it evaporates or goes through a plant first.”

Key to stopping wind and water erosion across the burned countryside is to get cover; leave the vegetation, any vegetation, he said.

Steffens said many ranchers were calling after the fire, inquiring about what to do with weeds.

“There’s no such thing as bad cover after a fire,” he said. “I don’t care what is growing there. I just want something to grow there to hold the ground down, slow the wind down, cut the evaporative loss, get the ground covered up. Next year if you want to kill weeds, then maybe, but the first thing you need to do is get the ground covered up again.”

“One thing I look for is a diversity of plants — some deep-rooted, some fibrous root,” Steffens said. “Some of you might not like old wild alfalfa, and the cows might not eat it, but it has a large root that will get water deeper into the profile. It’s a legume that will get nutrients to the grasses.”

Another thing to look for is the density and continuity of cover, Steffens said. “Is that



►Above: Bare spots in pastureland equate to evaporation of any moisture that falls.

ground covered — every square inch — with something on top of it?”

Utilizing a weighing lysimeter, a study of different amounts of cover on the soil surface showed no consistent difference in evaporative losses for ground with 0% to 75% cover, he said. There was some improvement when cover reached 90%, but

there was a big decrease in evaporative losses at 100% cover.

“The more cover we can get and the longer we can keep it there, the less water we will have run off, the less soil will be carried away, and the better things are going to do. The litter cover and leaf cover will keep that soil from blowing away.

“That’s what we hope for if we give the pastures enough time to produce the regrowth and cover up the ground,” Steffens said. “Also, standing cover will help collect the snow and keep it from blowing off; 10 inches of snow is about an inch of moisture, and that can make a big difference at spring green-up.”

### Benefits of weeds

After a disturbance like fire, forbs, what many folks call weeds, are often some of the first plants to come in, he said.

“You might get some weeds or forbs first, and some may not be exactly what you look forward to having in your pasture — wavy leaf thistle, buffalo burr, silver leaf nightshade,” Steffens said. “Why are the forbs there? Mother Nature is not a nudist — she covers herself up with whatever she has to grow.”

In addition to being deep tap-rooted plants, some forbs are actually higher in protein, which can improve diet quality and animal performance when mixed with grass. Plus, their deep roots loosen the soil up and break up compaction. They provide cover and help get more water into the ground eventually.

“Might we need to kill those weeds/forbs at a later date? Possibly. But often, as you heal things up, they tend to go away,” Steffens said. “Don’t worry so much about what you don’t want in the pasture. Worry more about taking care of the stuff you do want.

**“There’s no such thing as bad cover after a fire.”**

**— Tim Steffens**

“You might get three awn, scurfpea, curlycup gumweed, annual broomweed. If they aren’t spreading too quickly, a few are okay. Ask yourself if anything you’re doing may be affecting them. If you are getting less and less with what you are doing, you are good.”

He said the questions to ask are: What does it take to kill it, and what else might come in?

“Be careful what you wish for,” Steffens said. “Make sure you know why you are

using herbicides. You need to understand why things are how they are and fix that before treating. Is it a problem with lack of cover as a result of repeated grazing or other disturbance or what?”

### Recovery stocking rate considerations

He said in cases where the fire only burned a portion of a pasture and the cattle need to be grazing there, it might be prudent to fence off the burned area, at least temporarily, to help it recover.

“When the cattle are brought back into a pasture, they will pick the burned area first to graze because it has a higher proportion of green material and less old dead grass,” Steffens said. “They will be hard on it because that’s where they concentrate. If you don’t want them there, you have to do something to keep them off until the cover is back. I have seen the preference for these burned areas last as long as two years.”

Another thing to understand, he said, is cattle will usually graze the native pasture before they will graze the introduced grasses like Old World bluestem or weeping lovegrass.

“If you have 200 acres of weeping lovegrass and 200 acres of native grass inside the same fence, you really only have 200 acres to graze.”

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►Five months after wildfires left some pastures bare, a multitude of plants have covered the scorched land.



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Steffens said. “If part of a pasture burned, the burned part is how much will actually be grazed, because that is where the cows are going to go unless they are fenced off. You need to take this into consideration when you are deciding stocking rates.”

Wrapping up, he said the take-home lessons are: “We are not saying don’t ever spray weeds; we are not saying always come in and graze, or don’t come in and graze, or to stay out for a set period of time. What I feel comfortable saying is that right after a fire, I don’t think the forbs are causing a lot of problems.

“You have to be careful drawing sweeping conclusions when there are a lot of factors that enter into every situation,” Steffens said.

“There are a lot of things that enter into the decisions, everyone doing what they think is best. Try to be sure it is going to pay for itself over the course of time. Think about what you do want and manage for that. Don’t worry so much about what you don’t want, that may go away as you nurture those things you like.”

After looking at many different pastures under different circumstances, he said the best thing to do is watch how these develop over time, and learn what to expect.

“No matter what has been done, no threshold has been crossed because of the wildfire that a pasture can’t come back,” Steffens said. “Since the ice age, this area has been burned under all kinds of conditions,

and life goes on. Maybe you spray next year. Maybe you shred. Maybe you get cows to eat what you don’t want in there.

“The wonderful thing about all of this is you can’t mess it up so bad in a year, I don’t think, that you can’t get it back eventually. But bear in mind, nature’s time ain’t banker time. A little deferment and TLC (tender loving care) now can make for a quicker turnaround.”

Watch the video of Steffens’ presentation at [www.youtube.com/watch?v=B4irJDkRUTY&feature=youtu.be](http://www.youtube.com/watch?v=B4irJDkRUTY&feature=youtu.be).



**Editor’s Note:** *Kay Ledbetter is a communications specialist for Texas AgriLife Communications.*