

## Kansas Flint Hills Smoke Management Plan: Reasons for burning in the Flint Hills

The following is a transcript of the first of the radio broadcasts (see article No. 2 above) on the Kansas Flint Hills Smoke Management Plan. This is an interview with Clenton Owensby, K-State rangeland scientist, conducted by Eric Atkinson of the K-State Radio Network.

Q: This coming spring the newly drafted smoke management plan for prescribed burning in the Kansas Flint Hills will be implemented on an introductory basis. A task force including producer groups, K-State researchers and Extension specialists and agents, municipality officials, and state and federal environmental regulators teamed up to create this plan, the aim of which is to allow pasture burning to continue as an important management tool while preventing temporary spikes in air quality problems in our larger cities due to concentrations of smoke. Why is prescribed burning essential to preserving our native grass resources?

A: There are two primary reasons people burn. Number one is that it maintains a high quality prairie. There is concern you hear about prairie chickens, but the whole point of it is that without fire in this system, it will eventually revert to a forest type. It turns out that fairly frequent fire is necessary to maintain a quality tallgrass prairie in the Flint Hills.

Q: Is it an economic consideration for cattle producers as well?

A: The steers that are grazing on grass that has been burned will gain an average of about 30 pounds more per animal. That's if the burn is properly timed. You can't just burn at any time. You must burn at just about the beginning of growth of the warm-season perennial grass dominants that are out there in order to get that benefit from burning. And that occurs primarily in the first half of the season, so that impacts both the intensive early-season stock systems as well as the season-long stocking.

Q: How important is it from the perspective of grass management and woody brush control perspective, as well as the economic perspective, for producers in that concentrated time window (for native grasses) of April and early May?

A: If you want to hurt somebody, you want to hurt them when they're at their lowest point. It's the same thing with these woody species. When they have their lowest amount of food reserves, that material they use to regrow following top kill, if you burn at that low point then you get control. If you burn at an earlier date than that you're going to actually get an increase in the number of stems of those woody species. So it's very critical that you burn in the late spring. And the nice thing is that the late spring timing coincides with the maximum amount of cattle gain and obtaining the highest productivity of the grass. So to get woody plant control, high productivity of the warm-season perennial grasses, and really good gain in the cattle, you burn in late spring.

Q: You have done such extensive research on prescribed burning methods during your years at Kansas State University, and have interacted with a number of producers who

have conducted prescribed burns, what is your assessment of how well individual landowners carry out this practice, and how efficiently?

A: They do really well. In fact, when we had meetings recently with producers from the Flint Hills region, one of the things they were most concerned about was the timing that burning occurred. They wanted to make sure they were doing it right. They had been doing it right because they had listened to the research work we had done here at K-State. Burning research at K-State started in 1918 and has continued to this day with respect to the production of livestock.

Q: So part of the message you would stress here is that prescribed burning can be managed appropriately. And with this new smoke management plan in place, can the objectives of that plan be met and still maintain the opportunity to preserve pasture land through burning?

A: Just to clarify, the number of times in the last six or seven years that we've had an incident where there was an exceedance of ozone levels in a metropolitan area has been three. So it's not a common occurrence. The normal practice is for them to begin to burn in the southern Flint Hills region earlier in the season because that's when growth starts there. Then it progresses up through the remainder of the Flint Hills. That then spreads it out over a larger time period. But when weather conditions get to the point that you cannot burn during that window down in the south, then they go later and later with their burn. And that then tends to coincide with the time that burning in the northern Flint Hills occurs, and that's when we have had exceedances in the ozone levels in those metropolitan areas. So there is a set of circumstances with respect to when burning occurs that makes a difference in the level of smoke from the Flint Hills region.

Q: If you were to talk to a producer who wanted to get your take on the smoke management plan and its implementation, and whether it will coincide with the need to manage grass with prescribed burning, what would you say?

A: In the meetings I've had and the testimony I gave before the state legislature, there was unanimous approval of the idea that the Flint Hills would burn. The rancher is not hamstrung by any of the new regulations. It is advisory in nature right now, and as long as ranchers in the Flint Hills region are cognizant of the fact that burning could cause a problem on a certain day, and that they change from one day to the next to burn in order to accommodate that, then I don't think there's going to be a difficult problem.

Q: So it really can be just as simple as a slight adjustment?

A: I think so. The key to the issue is that there are certain times when we burn huge numbers of acres because that's the first day of the year that a fire can occur. So what we basically need to do is that in this instance, make sure that we burn when the opportunity arises and not wait for that time when everyone else is burning. I am hopeful that just a few changes in the way we do things will cause us to have greater success in keeping regulation out of it. That's what we really want to do. We don't want them telling us

when or how or if we burn. What we'd like to do is cooperate with them and make sure that burning occurs in the Flint Hills forever.

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