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CEDAR TREE CONTROL

One of the biggest threats facing pasture and rangeland across Nebraska is the encroachment of the Eastern Red Cedar. Although a native tree, and very useful in a number of circumstances, its slow takeover of what used to be grassland has put much of the state in a difficult situation.

Cedar trees, when contained, are a great resource for livestock producers. They are hardy, fast growing, and dense, all traits that make them ideal for windbreaks. However, they don't like to stay put, and with their prolific seed production, can soon start to take over without active control.

It is estimated that a single cedar tree with an 8-foot diameter could reduce forage production by 3 pounds. If you had a density of 200 trees per acre, that would translate into nearly a 1/3 loss in forage production because of the effects of area coverage, moisture use, and shading.

In addition to cedar tree impacts on forage production, excessive cedar trees will also dramatically alter habitat for many wildlife species that are adapted to a grassland environment. Once they begin to peak above the grass canopy, cedars provide a perch for raptors and cover for ground based predators like coyotes. Even in wooded areas, cedars fill in the understory, slowly choking out saplings getting more and more dense, until movement through the area is impossible. Finally, in the event of a wildfire, uncontrolled cedar tree growth can result in devastating and destructive wildfires.

The one redeeming quality of the cedar is that when it comes down to it, they are relatively easy to kill. Many problem plants have deep root systems and reserves that take years to wear down, or sprout new shoots after mechanical removal, creating 2-3 new plants where there once was one. Cedars on the other hand have growing points all above ground. Kill off the top of the plant, and the whole thing dies.

Recent studies from UNL have shown that up to 80% of new cedar seedlings can be found within 100 yards of the parent tree. Up to 90% can be found within 200 yards. In theory knowing this should make efforts to control trees easier, by pin pointing where we should focus our efforts. In practice however, we have gotten to the point where there are so many trees across the landscape that almost everywhere falls into the 200 yards from a cedar tree category.

As the number of cedars in a landscape increases, control techniques like mechanical cutting or shredding and herbicides become cost prohibitive pretty fast. In cases where these are options, acting regularly can keep the situation manageable. If we wait on control, the effectiveness of treatments decreases, and costs increase. One tool that is by far the most economical for light control or dealing with a total infestation is prescribed fire.

Due to the cedar's above ground growing points, a hot enough fire will kill even tall trees, while also taking care of unseen seedlings. Additionally, other control methods leave any seed already produced viable, just waiting to drop to the ground. Fire takes out the current seed crop, reducing the overall seed bank and over time, seedling pressure overall.

Safe and controlled prescribed burns don't just happen. It takes preparation, planning, and an understanding of how fire reacts in certain weather conditions, with particular fuel loads, and on various types of topography.

You can begin to learn how to conduct a safe, legal, and effective prescribed burn by attending the virtual 2020 Nebraska Prescribed Fire Conference. This webinar will be held on the morning of Tuesday, December 8th and speakers include a variety of researchers and land managers. To learn more about this conference, including registration and agenda, go online at <https://www.facebook.com/NebraskaPrescribedFireCouncil>

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