

Out on a Limb . . . Forestry Tidbits from the Niobrara Valley

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Good cedar/bad cedar – the whole story

By now, most people have probably heard the “good fire/bad fire” discussion – in which the merits of periodic, low-intensity fires that reduce undergrowth density and provide benefits to both vegetation and wildlife are contrasted with high-intensity, extreme-weather wildfires that can destroy human-made structures and large expanses of overgrown forests. We may revisit that topic on another day, but now let’s take a look at another “good/bad” discussion that may not be as well-known: Eastern redcedar.

Nebraska is primarily a prairie state, and some people have endorsed the notion that all trees are bad, particularly eastern redcedar, which is indeed encroaching on many of Nebraska’s prairies at an alarming rate. But forests are native to Nebraska – hardwoods along rivers and streams statewide, as well as ponderosa pine forests in the central Niobrara Valley and the Pine Ridge. Eastern redcedar is also native to Nebraska, although historically in much less abundance than it is today. This is due both to having more seed sources and to increased suppression of the wildfires that once kept these trees in check.

In many areas cedar is now encroaching into pine and deciduous forests, competing with them for water, light, and nutrients, and increasing their susceptibility to catastrophic wildfire. Historically ponderosa pine forests were less dense than they are today because occasional wildfires maintained them as lightly forested pine savannas. When the fires stopped, not only did the pines become too dense, eastern redcedar encroached as well.

In response to this, landowners and natural resources agencies have been thinning pine and deciduous woodlands and removing cedars that have encroached into them, and they have been clearing cedars from grasslands, both mechanically and with fire.

But wait! Eastern redcedar isn’t all the same.

Cedars that have encroached into prairies and those that are growing in poor quality soils, especially on ridgetops, are usually open-grown. This means they are very limby and because they grow quickly they have very little of the prized red heartwood in the center. The heartwood is rot-resistant, which is why cedar posts with a high percentage of heartwood are in great demand. The lighter-colored sapwood that grows between the heartwood and the bark is less resistant to rot, so it is not desirable for fence posts.

Cedars growing in forest stands in higher quality soils, especially in bottomlands, tend to grow more slowly, so they contain more heartwood. Sawlogs with a high percentage of heartwood can be turned into beautiful lumber, paneling, and furniture. These high quality cedars can be quite valuable in terms of financial return to the landowner. They also add value to our culture. High quality cedars, whether growing among hardwoods or in pure cedar stands, can be managed for their potential to provide useful products. Being native, these trees also fill an ecological niche with an important place in the larger landscape.

The key word here is management. Pure cedar stands on high-quality sites can be thinned to an appropriate density by separating individuals or small groups of trees, favoring non-seed-bearing “crop” trees with sawtimber potential. Ladder fuels (small cedars growing beneath larger trees and the low green branches on larger cedars) should still be removed to reduce fire hazard. Seed-bearing trees can be removed to limit reproduction.

Where cedar is mixed with pines or hardwoods, management can focus on removing cedars close to other forest trees to reduce competition and open up stands. This can be done by harvesting cedar sawlogs and removing ladder fuels to provide protection from catastrophic wildfire. Some of the highest-quality cedars can be retained to provide vegetative diversity and future top-notch wood products.

Detailed eastern redcedar forest management prescriptions are available from Nebraska Forest Service offices. Let’s not throw out the baby with the bathwater!

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Photo captions

ERC_Logs.jpg:

Some eastern redcedar logs have a high percentage of red heartwood. Logs such as these are used to make beautiful wood products, including cedar paneling and quality furniture. *Photo by S. Benson.*

ERC_Boards.jpg:

These boards were cut from eastern redcedar trees growing on good soils in the Niobrara River valley. *Photo by S. Benson.*