

Bur Oaks and the Burr Oak Canyon

BENEFICIAL LANDSCAPES

Justin Evertson

Perhaps no tree better symbolizes the spirit of the Great Plains than the bur oak (*Quercus macrocarpa*). Its thick, corky bark enabled it to withstand wildfire, making it one of the most prominent and long-lived species of the Midwest prairie region. Bur oak has a wide geographic range growing from Texas to North Dakota and even into Canada. It's the most common oak found in Nebraska, growing on favorable slopes in the eastern third of the state and even following the Niobrara River in to western Cherry County. Bur oak can be a large tree reaching up to 70' tall and over 100' in canopy spread. It is also one of the longest-lived trees in our region with some specimens dated to be over 500 years old.



As its name implies, Burr Oak Canyon, near the Kansas border in SE Hitchcock County, is named for the oaks that grow there (the earlier name Burr Oak is used in this context). This disjunct stand of trees grows at least 50 miles from the nearest native stands of oaks, begging the question, how did they get there? It's doubtful that squirrels or other creatures were able to carry the acorns that far. Most likely, the trees were stranded in the canyon by a changing climate. About 10,000 years ago, as the last Ice Age glaciers retreated, oaks and other trees were able to move rapidly north, giving Nebraska a much more forested ecosystem. Then about 5,000 years ago, the climate became hotter and drier, favoring grasslands and causing many trees to disappear. It's likely that the trees in Burr Oak Canyon have been hanging on in this protected and slightly wetter ravine for thousands of years.

Burr Oak canyon also tells the story of other oak species that likely grew in the area eons ago. Several of the oaks show hybrid characteristics in leaf shape and acorns of both post oak (*Quercus stellata*) and gambel oak (*Quercus gambelii*). Post oak is now a southern Great Plains native while gambel oak is a Rocky Mountain species. At one time, all three oaks likely grew together in southwest Nebraska, sharing genes and creating these interesting hybrids. Bur oak and gambel oak hybrids are also the dominant oak species of the Black Hills of South Dakota.

Anyone wishing to learn more about bur oaks, the Burr Oak canyon, or trees generally is encouraged to attend the upcoming Burr Oak Canyon Tree Symposium October 17-18 at McCook Community College. The symposium will include tree professionals speaking on oaks and other tree topics and will wrap up with an enlightening half-day tour of Burr Oak Canyon—which is not normally open to the public. Register by Oct. 10 or learn more at <https://bceregister.mpcc.edu/CourseStatus.awp?&course=202CFEE6170>.

Justin Evertson, Nebraska Statewide Arboretum, plantnebraska.org

POTENTIAL OUTLINE: Burr Oak Canyon near McCook is home to an isolated stand of bur oaks that offers a window to both the past and the future.