Words of Wisdom?

The four hardest things to say:
I was wrong
I’m sorry
I need help
Worcestershire Sauce

Trees and Their People
NSA Plant Talk – October 2021
Justin Evertson, Nebraska Forest Service
Nebraska Statewide Arboretum
Many of our best trees didn’t happen by chance.

Greg and Mary Wichlet on the Wichlet Farm near Cozad
Butternut was discovered as a native Nebraska tree in 2018 along the Steamboat Trace Trail south of Nebraska City.
Native Americans used “thong trees” to mark important trails.

This cottonwood north of Lewellen is 94’ tall x 123’ wide x 30’6” trunk circ. It’s a sacred tree to the Lakota having witnessed the Battle of Blue Water in 1855. The national champion eastern cottonwood grows near Beatrice and is 88’ tall x 108’ wide x 37’ trunk circ.
Nebraska’s forests sit at an ecological crossroads: 35 tree species reach their geographic range limit here - more than any other state.

**Eastern Species Reaching Their Limit:**
- White oak, black oak, red oak, chinkapin oak, blackjack oak, shagbark hickory, bitternut hickory, buckeye, butternut, sycamore, white ash, downy hawthorn, etc.

**Western Species Reaching Their Limit:**
- Ponderosa pine, limber pine, Rocky Mountain juniper, Rocky Mountain maple, water birch, mountain mahogany,

Remnant tree populations tell us about a past that was more favorable to trees.

**Advance of Ice Age Glaciation 15,000 YA**
- Pleistocene: 2 million to 10,000 YA
Macrofossils of white and blue spruce (*Picea glauca* and *P. pungens*) and limber pine (*Pinus flexilis*) indicate a taigalike successional mix of coniferous forest and aspen parkland in western Kansas and Nebraska during the last glaciation of the Pleistocene. The fossil assemblages are most closely matched to the existing subalpine forests of the Rocky Mountains.

Anachronistic fruits tell us about tree evolution and extinct animals.

*An anachronism is something that is chronologically out of place.*

Coffeetree, Honeylocust & Osage Orange
The Niobrara River Corridor – Where east meets west and the Ice Age hangs on.

Limber Pine in western Kimball County is an ice-age relic. It has large edible seeds that attract rare birds including the Pinyon Jay and Clark’s Nutcracker. Some trees have been dated to over 600 years old.
Fossilized seeds indicate hackberry (Celtis occidentalis) in Hackberry Hollow in Cheyenne County has been growing there for tens of thousands of years. The species has been in the region for millions of years.

**Burr Oak Canyon – SW Nebraska**
Trees of Ash Hollow
Vitally important to native Americans and early settlers. Show species hybridization and clinal variation with cottonwood, ash and cedar/juniper.

Eastern Redcedar and Rocky Mountain Juniper hybridize in the area.
RM Juniper is a fairly rare tree while Eastern Redcedar is eating the state!

Some RM Juniper in the Wildcat Hills near Scottsbluff are at least 800 years old.

Sometimes we have to kill trees to save trees!

Carol Bodeen and others helping to preserve Dwarf Chinkapin Oak habitat in Richardson CO.
Native trees provide bird habitat.

- Cardinal
- Brown Creeper
- Downy Woodpecker
- Goldfinch
- Junco
- Cedar Waxwing
- Nuthatch
- Northern Flicker
- Northern Cardinal
- Northern Mockingbird
- Northern Cardinal
NFS/NSA & green industry partners are identifying and propagating superior trees from across the central Great Plains region and promoting and planting progeny of those trees to help expand the diversity and resiliency of planted landscapes.
Exploring the Region for Native Trees

Kansas and Oklahoma

A Few Targeted Species
Bur Oak - *Quercus macrocarpa*
Chinkapin Oak – *Q. muehlenbergii*

Pecan – *Carya illinoensis*
NSA Grows These Trees!

Bob Henrickson and his crew!

We Bought Some Tennessee Forest!
“Sweet Seclusion” Cabin
Trees are Wonderful!! We need more of them!!
Are they the answer to everything?

More Trees, Less Global Warming, Right? -- Not Exactly
A 150-year simulation of worldwide deforestation finds that tropical forests are carbon sinks and boreal forests contribute to warming

By Nikhil Swaminathan on April 30, 2007

Tree Lists can Be Found Here
https://plantnebraska.org/your-yard/what-to-plant.html
“We don’t inherit the earth from our ancestors, we borrow it from our children.”

Native American Proverb