

Conservation Profile

Volume 30 Issue 3

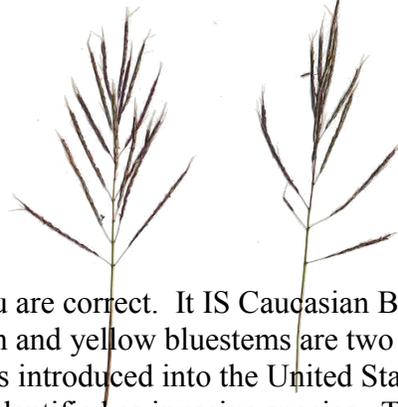
SHAWNEE COUNTY CONSERVATION DISTRICT

October, 2018

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Can You Identify This Plant?



Left: Seed Heads

Below: Hairs where blade connects to stem



Photo from kansasnativeplants.com

Yes! You are correct. It IS Caucasian Bluestem. Caucasian and yellow bluestems are two Old World Bluestems introduced into the United States which are now identified as invasive species. They are aggressive and prolific seed producers. Left uncon-

trolled, they have the potential to dominate landscapes. Avoid seed spread by not mowing, use a spring burn, chemical treatment using appropriate product labels, and follow up as needed.

Will You Miss Out on Cost-Share?

As of October 11, the District still has cost-share available in the Non Point Source Program for the following practices:

Abandoned Water Well Plugging, Failing On-Site Waste Water (septic) System, Livestock Waste System (critical area planting, cross-fencing, field border seeding, filter strip seeding, grassed waterway, heavy use protection –concrete bunk pad, solar pump for water supply line, stream crossing, waste storage facility, water treatment lagoon, water well or tank, windbreak, etc. Large LWS projects may qualify for additional funds.) **Nutrient Management** (soil tests, etc.), **Riparian Protection** (fencing, planting, etc.), **Unpermitted Dump Site Remediation** (critical area planting, fencing, dump fees, backhoe, bulldozer, track hoe, tire fees, transportation), and **Pasture and Rangeland Management** (brush control, water supply lines, etc.)

This cost-share is funded at 70% of the county average cost up to the project limit which varies by project type. Projects already started or completed without a signed state cost-share contract in the conservation district office are not eligible for funding. Cost-share is considered taxable income and recipients receive a 1099 in January.

Call (785) 338-9946, to find out if your project qualifies and to learn project funding limits as well as other details concerning the Program. All practices must be properly maintained for a minimum of ten years.

Funding provided by the Division of Conservation, KS Dept. of Agriculture through appropriation from the Kansas Water Plan Fund.

19th Water Festival

Over 1,081 fourth graders, teachers, and other adults took part in the 19th Annual Topeka Water Festival at Garfield Park on September 20.

More than 125 volunteers and sponsors made the event possible by conducting 35 hands-on activities, 5 exhibits, and all the other tasks involved. Pictured right is the *H2Olympics* activity in which students explore adhesion and cohesion using water drops on a penny and by floating paperclips.

The event is based on Project WET activities which include technology or Science, Technology, Engineering, and Math (STEM) connections.



**SHAWNEE COUNTY
CONSERVATION DISTRICT**

BOARD OF SUPERVISORS:

Michael Bassett	Chair
Wayne Lukert	Vice-Chair
Francis Kelsey	Treasurer
Richard Runnebaum	Member
RJ Dake	Member

District Staff:

Judy Boltman	District Manager
David Dennon	District Technician

**NATURAL RESOURCES
CONSERVATION SERVICE**

FIELD OFFICE STAFF:

Sara Fredrickson	District Conservationist
Christy Ronsse	Soil Conservation Technician

OFFICE HOURS:

7:30 - 4:30 M-T-W-Th
7:30 - 3:30 Friday



3231 SW Van Buren Street
Topeka, KS 66611-2469
(785) 338-9946

Email sccdistrict@sccdistrict.com

The Conservation District Board meetings are held the first Monday of every month and are open to the public. Please call for time and location.

Conservation Profile published irregularly.

All programs and services of the SCCD are available without regard to race, color, religion, sex, national origin, marital status, age or handicap.

Pie on January 31

The District's January 31, 2019 Annual Meeting and dinner will have cheesecake and fruit pie for dessert. The meal starts at 6:30 p.m. at the Kansas Historical Society and Museum at 6425 SW 6th Street. Reservation and more information will be provided in our December newsletter.



In the Planning Stage

The Conservation District is working with Topeka Field Office NRCS District Conservationist Sara Fredrickson and Shawnee County Extension Ag Agent Leroy Russell to put together a series of short workshops. The series is being scheduled for January through March 2019. Topics currently in progress include:

1. Open Communication Between Land Owners and Tenants
2. Weather Extremes - Dealing with Drought, Hot, Cold, Floods, Ice, Snow, etc.
3. Blue-Green Algae/Pond Problems
4. Old World Bluestem and the local Top Ten Weed Problems
5. Small Acreage/Small Business Maintenance

Coffee, Cookies, and Conversation Program details will be provided in our December newsletter. Hosted by Shawnee County Conservation District and K-State Research and Extension – Shawnee County with assistance from USDA Natural Resources Conservation Service.

No-Till Conference Scholarships

The Conservation District is offering a Shawnee County landowner first time attendee scholarship for the 23rd Annual No-Till on the Plains Winter Conference held January 29-30, 2019 in Wichita. No-Till is also having a Beginning No-till Producers Workshop on January 28.

The Shawnee County landowner must be a first time attendee to the No-Till on the Plains Winter Conference to be eligible for reimbursement of their registration fee to the conference. There is an application form your conservation district has to submit for you so please let us know if you are interested. Applications will be taken on a first-come first-serve basis until the funds are expended. The Conservation District Board may cover mileage and/or hotel expenses for a Shawnee County landowner. More scholarships may be available at www.notill.org.

Pre-approval is required. As of this publication's print date, some details are pending, so please let us know as soon as possible if you are interested. Contact Judy Boltman by November 1, 2018 at 338-9946.

Topics

- Soil biology
- Nutrient management
- Holistic management
- Diverse crop rotations
- Crop production
- Mixing range and crop land management
- Production efficiency-dollars per acre
- Livestock grazing and management

Continued from May newsletter. **Ten commonly asked questions when pondering dry ponds**

By Deann Presley and Herschel George

Rural landowners often get a good look at the bottom of their ponds during winter and particularly after a drought, and so they might be considering corrective actions such as cleaning the sediment out or adding sealants to leaky ponds. DeAnn Presley, K-State Soil Management specialist, and Herschel George, K-State Watershed specialist, answer some frequently asked questions regarding dry ponds and what to consider before deciding to clean or amend a pond.

Q: Can the removed sediment be used as a building or topsoil material?

A: Pond fill (sediment) will not have any soil structure, so it will have very little strength. It is probably not a good idea to use pond fill under a supporting wall of a building, but it might have some value for amending a degraded soil.

Q: Why is my pond dry?

A: Not all ponds are built on sites with good soil texture (% sand/silt/clay). The clay content is important for a pond to seal. Starting the pond construction with a core trench is essential. The core trench is constructed by digging a trench the length of the dam. The trench is dug down through the top soil, rock, sand or all material until a good clay soil layer is reached. Most core trenches are at least 4 feet. Clay soil is then packed back into the trench. The lack of a core trench is one of the major reasons ponds leak. Often a pond is built near a rock layer. If rock is encountered during construction, all rock layers must be padded with 6 inches or more of a high clay content material.

Q: How can you tell if a soil has enough clay?

A: Perform a ribbon test. – Squeeze a moistened ball of soil into a ribbon between thumb and fingers.

Ribbons less than 1 inch,
Feels gritty = coarse texture (sandy) soil
Not gritty feeling = medium texture soil, high in silt

Ribbons 1 to 2 inches
Feels gritty = medium texture soil
Not gritty feeling = fine

Ribbons greater than 2 inches = fine texture (clayey) soil
Good for pond construction

Note: A soil with as little as 20% clay will behave as a clayey soil. A soil needs 45% to over 60% medium to coarse sand to behave as a sandy soil. In a soil with 20% clay and 80% sand, the soil will behave as a clayey soil.



You can also perform a moisture-by-feel test: Roll out a small clump of soil into a wire. The ideal soil moisture condition would be for it to roll out to 1/8 inch diameter without breaking or crumbling. If it breaks, rewet it. If it still does not roll out to 1/8 inch diameter, it may not contain enough clay, and therefore, might need a soil additive.

Q: Can you add materials to help seal a pond?

A: Dispersants such as soda ash or rock salt are used for sealing lagoons or ponds. Dispersants work by causing clay particles to swell and repel each other, thus destroying soil structure. All dispersants are to be incorporated and compacted in six-inch layers during the construction. It should be noted that adding the dispersants to an existing pond may not work. It will likely be necessary to drain the pond, clean out the sediment, scarify the bottom of the pond, add the sealant, and then compact the pond.

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Soda Ash

Application rate: 10-25 lbs/100 sq. ft.

Notes: Makes a good seal. Soil must contain >15% clay, and >50% clay + silt

Rock Salt

Application rate: 20 to 33 lbs/100 sq. ft.

Notes: Least expensive. (One reference suggested rates as high as 400 lbs per 100 sq. ft. during new construction would not harm fish or inhibit vegetation).



Q: What about adding bentonite to help create a seal?

A: Bentonite is a special type of clay that swells when water is added to it so it can also be used to line a pond. However, using bentonite is an expensive option. When bentonite dries out, it will crack, and so it is not recommended for use in a pond where the water level fluctuates greatly. If bentonite is used, it should be added during the construction process and be mixed and compacted with the rest of the soil being used to construct the pond.

Bentonite Application rate: 100-150 lbs/100 sq. ft. (silty soil)
200-300 lbs/100 sq. ft. (sandier soil)

Note: Most expensive option

Q: How can I test the level of soil compaction for a pond?

A: Use a soil penetrometer. Cone penetrometers are often used to locate compaction. The penetrometer rod should be driven in the soil at a rate of approximately 1 inch per second.

Level at which root growth is impossible: 300 psi

Level at which lagoons and ponds should be compacted: 625 psi for lagoons and 725 psi for ponds.

For more information on ponds, see the USDA-NRCS publication: “Ponds – Planning, Design, Construction” at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_030362.pdf

Call us about livestock water tank and supply line cost-share information for Shawnee County. Funds not under contract by December 7 will go back to the state to be used by landowners in other Kansas counties. 🌞

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