

Column Name- The Heartland Minute

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*“Old World Bluestem”*

There are two species that are commonly referred to as Old World Bluestem (OWB): caucasian bluestem and yellow bluestem. With the name bluestem there is a common misconception that OWB's are related to native bluestems such as big and little bluestem, and broomsedge bluestem. However, that is not the case.

OWB's are warm-season perennial grasses native to Asia, Africa, and Australia. U.S. introduction took place for conservation purposes and as a forage crop for haying and grazing in the early 1900's. Seedings in KS likely occurred between 1930's and 1960's. OWB's are adapted to high calcareous and high pH soils and do well on any well-drained soil. They are very competitive with native species and are prolific seed producers. Once established, OWB's increase drastically due to their invasive nature and relatively low palatability.

Identification can be difficult between OWB species without seed heads present. Their vegetative characteristics are rather similar. OWB's are bunch grasses, but yellow bluestem may eventually form a sod with continual heavy defoliation. Grasses will be light green in color during the growing season and a light straw color when dormant. Leaves are thin and pointed, up to 12 inches long, with sporadic long hairs at the base of the leaf. Leaf sheaths are hairless, and ligules are a hairy membrane.

Seed heads begin to emerge in mid-June to early July which is earlier than many native species. Plants reach 1.5 to 3 feet high in height by mid-summer. Nodes of caucasian bluestem are purple-tinged and may have short hairs. Inflorescences are typically 2.5 to 6 inches long. Yellow bluestem has 4 to 12 'fuzzy' branches about the same length, arranged in a fan that originates toward the base of the seed head. Caucasian bluestem has several more reddish-purple branches that get shorter toward the top of the seed head.

OWB can be controlled by both glyphosate and imazapyr. Recommendations include mowing or burning followed by a broadcast application of glyphosate (3lb ae/A) or imazapyr (0.5lb ae/A). Ideally, herbicides will be applied before an infestation is widespread, which would allow spot treatment with a 2.5% (5 pints/25 gal) glyphosate solution or 1% (2 pts/25 gal) imazapyr. Also, prescribe burns during the growing season (late July and August) with abundant fuel and slow-moving fires have been able to significantly reduce OWB in native stands.

Re-establishing desirable vegetation may be a challenge with either glyphosate or imazapyr. Native vegetation, especially many native tallgrasses, seem to be more tolerant of imazapyr, which may allow for the survival of many desirable plants if treating invading OWB stands.

Information comes from KSU Department of Agronomy - Agronomy eUpdate – 1/30/25 Issue 1037

Save the date for upcoming programs related to livestock and farm management. February 20, 2025 will be a “Heifer Development & Risk Management” meeting with KSRE Cow-Calf Specialist, Dr. Jason Warner. Meeting will be at the Yates Center Community Building, starting at 6 pm with a meal and program to follow at 6:30 pm. March 4, 2025 will be a Prescribed Fire Burn School in Hamilton. March 13, 2025 will be “Livestock Watering System Options” tour and demo. Timing will be middle of the day with a lunch provided. Location TBD. Please contact the office for more information and to RSVP.

Information comes from KSRE Northeast Area Agronomist, Tina Sullivan.