

Old World Bluestem

AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

There are two warm season grasses that are invading our native grasslands and they are of substantial concern. Collectively we call them Old World Bluestems. The two are technically different species, Caucasian Bluestem and Yellow Bluestem. But their damage and control are similar enough we just lump them as Old World Bluestem, or OWB. This is when I really don't like common names. Although these two species have bluestem in their name, they are not closely related to the native and highly desirable big and little bluestem.

OWB has been promoted for years as an alternative forage. Unfortunately, given a choice, livestock will not graze it. It is unpalatable and not overly nutritious. What we have found is that OWB is invasive and often suppresses the growth and vigor of other grasses that are more nutritious and palatable to livestock. We suspect that in the early years of the Conservation Reserve Program, OWB seed was included in the mix of grasses that were planted. In some states, I hope not Kansas, entire pastures were even seeded to this scourge.

OWB often starts to grow just a little later than native species so burning does not have a negative impact on it. In late summer and early fall OWB is quite obvious as it's foliage tends to be very pale green, often described as a limey green or a yellow green color. If an area has been mowed or hayed OWB becomes very obvious. The seed heads are quite distinctive as well - the two species have different seed heads from each other but still quite distinctive. It is a prolific seed producer which can be a challenge as we try to control it. It is also very drought hardy, often growing better under very dry conditions than the native grasses.

OWB is not easily controlled by herbicides, or perhaps it is more correct to say that we don't have any highly selective herbicides to control OWB. Glyphosate controls it quite well, but it tends to kill just about everything else too. In areas of extreme OWB infestations glyphosate may be the only way to go, but only do so where you have a plan in place to re-establish desirable vegetation as soon as possible. In some parts of the Flint Hills this is very difficult due to rocky soils and steep slopes. In areas that are flat and have enough soil depth you could plant glyphosate resistant soybeans and as the OWB and other vegetation grows you could spray with glyphosate that would kill just about everything except the soybeans. After a year or two of this you could then follow up with a permanent grass/forb planting. It is very important when replanting any warm season native mix to check with your seed supplier to make sure that the mix has 0.0% OWB seed present. We don't need to restart a problem we just got rid of.

About the only other herbicide that we've had much luck with is Imazapyr. This product is commonly called Arsenal. The advantage to this product is that it is not as aggressive on native grasses and forbs. It will take multiple treatments over multiple years but it is much easier on the natives and quite active on the OWB species. We usually recommend two treatments per year after the OWB has started actively growing of 1 pint per acre. Make the second treatment about eight weeks after the first. Because of the volume of seed that can be in the soil, monitoring and additional treatments for several years will likely be in order.

Old World Bluestems are a real problem and challenge. Hopefully new herbicides will be developed in the future that will broaden our options for control. Until then though, start looking for it so you know where control operations will need to be initiated next year.