Crop Update
10/18/16

Pasture Wheat Meetings

Concern Over Ornamental Fountain Grass Invading Pasture Fields

Sericea lespedeza, johnsongrass, multiflora rose, kudzu, perilla mint and spotted knapweed are some examples of plants introduced to Missouri, either intentionally as an agriculture forage, erosion control, or ornamental or unintentionally through contamination, that have become troublesome weeds to forage and row crop producers. Another example of an ornamental that has made its way into pastures is fountain grass (*Pennisetum spp.*) pictured. Fountain grass is considered an invasive plant in the southwest U.S. and the USDA has a field guide to managing fountain grass: http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5410113.pdf.

I was asked to look this fall at a grass that was established in some pastures. This particular fountain grass (pictured) was found at varying densities in a concentrated area of pastures in southeast Missouri. Fountain grass is a warm season perennial bunch grass grown as an ornamental in landscapes. Stems are flat and grow in dense clumps. Sheath margin has white hairs. Leaves are bright green which can deepen to purplish or reddish in color with cooler temperatures and maturity. Fountain grass identifying feature is its purplish, bottlebrush seed head (panicle). It reproduces by seed and germinates in late spring. The seeds are viable, according to USDA guide, for up to 7 years. Seeds have bristles that can attach to animal fur or clothing. Seeds can also be distributed by wind, water and equipment. It appears, in the situation I looked at, seed was inadvertently spread by mowing equipment.

Management of plants such as fountain grass has to be proactive and focus on controlling plants prior to seed production. Management would include physical, cultural and chemical control practices. Physical control would include removing plants, especially if seed heads are visible; mowing plants prior to viable seed production can reduce the number of seed heads but will not stop seed production completely. Cultural control would include promoting landscaping alternatives, especially near and around pastures; maintaining thick competitive pastures to limit infestation of fountain grass; monitor fields, fencerows, rights of way, roads and learn to identify; avoid moving equipment, vehicles, or livestock through a field when seed heads are present and thoroughly inspecting and cleaning equipment before leaving a field. Livestock will not graze fountain grass once it is past early seedling stage. Chemical control is limited to spot spraying with glyphosate and selective grass herbicides. However, fountain grass is a grass and there are no known selective grass herbicides identified that will control fountain grass in a cool season grass pasture; the other chemical option would include a cultural change to a broadleaf crop where selective grass herbicides can be applied.

My knowledge of this plant is limited and as I learn more, I will pass it on. In the meantime it is important to monitor fields for any kind of plant that does not fit in your standard reference of common weeds or desirable plants and manage accordingly.

Winter Wheat

I have had some questions about winter wheat planting this week. A good start is with variety selection and soil testing. MU Variety Testing is a good resource for variety selection: http://varietytesting.missouri.edu/.

Optimum planting window is the month of October, preferably after the Hessian fly free date of October 10th or later for the southern region.

Optimum seeding rate is 1.3 to 1.5 million pure live seeds/acre. Pure live seed takes into account percent germination and percent purity of seed. Ideal fall stand counts should be between 30 and 35 plants/ft^2.

Optimum seeding depth is 3Ž4 to 1.5 inches deep. Planting too shallow or deep will negatively influence emergence.

A question about seed treatments was also asked. As planting date continues to be pushed further into October, conditions for optimum stand may be challenged by cooler, wetter soils. Fungicide seed treatments should be considered in order to potentially improve stand going into winter. Information on wheat seed treatments can be found in Missouri Pest Management Guide M171: http://extension.missouri.edu/p/M171. Additional information can be found in University of Kentucky's guide to wheat fungicides: https://www2.ca.uky.edu/agcollege/plantpathology/ext_files/PPFShtml/ppfsagsg5.pdf

Wheat Insect and Weed Control

Fall insect management targets aphids, in particular bird cherry-oat aphid, primarily to manage barley yellow dwarf virus (BYDV) infection. Begin scouting earliest emerged wheat fields approximately 30 days after emergence. When determining threshold levels consider three factors that make scouting and finding bird cherry-oat aphids difficult: dark olive color; small colonies; feed and hide on lowest leaves and stems near crown. With this in mind, thresholds are generally set low if management of BYDV is primary objective. Threshold range is 6 to 12 aphids per linear foot of row.

Fall weed control targets winter grass weeds, primarily ryegrass and bromes (cheat). Grass weeds that come up with wheat or emerge in the fall while wheat is trying to establish and tiller will have the largest yield impact. In general, a two pass control program (Fall followed by Spring) will provide good control of problem fields. The post-emergence products for ryegrass control include the ALS-inhibiting herbicides mesosulfuron (Osprey), pyxosulam (Power Flex) or propoxycarbazone+mesosulfuron (Olympus Flex) and the ACCase-inhibiting herbicide pinoxaden (Axial). There has been resistance to these modes of action in Missouri, therefore, consider alternating modes of action within crop with the use of some preemergence herbicides or with crop rotation.

For more information on insecticides and herbicides for wheat refer to Missouri Manual 171: Pest Management Guide.

Upcoming University of Missouri Extension Meetings

Certified Crop Advisors Meeting - November 21st – 22nd at the Fisher Delta Research Center, Portageville, MO

Two full days of CEUs in IPM, Crop Production, Nutrients, and Soil and Water
Contact myself or David Dunn to register.

Corn Meeting – December 7th at the Miner Convention Center, Miner, MO

8:00 am to 1:00 pm
Contact myself or David Reinbott to register.

Thank You,

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