Horsetail called the ‘dinosaur of the plant world’

By Pat Melgares, K-State Research and Extension news service

MANHATTAN, Kan. – In rural America, talk about horsetails in a field conjures thoughts of farmhands in saddles, working cattle or checking on emerging crops.

When Kansas State University weed management specialist Sarah Lancaster gets questions about horsetails, however, the inquiry is probably not about four-legged farm animals.

“I like to call horsetails the dinosaurs of the plant world,” Lancaster said. “They’re a weed species that has literally been around since the times of the dinosaurs. That, in and of itself, should tell us why I get questions about it. They’re pretty tough and they’re very difficult to manage.”

Horsetail, also called mare’s tail, is a deep-rooted, invasive weed that spreads quickly, forming a dense carpet of foliage that crowds out more desirable plants, such as pasture grass.

“They look a lot like asparagus, actually,” Lancaster said. “They reproduce by spores, not seeds; they’re just a very different sort of plant. Many of the go-to herbicides don’t work on them.”

Lancaster said some past research studies indicate that 2,4-D or MCPA – a phenoxy herbicide similar to 2,4-D – can be effective in suppressing horsetail weeds. Newer studies report that picloram and metsulfuron may be helpful in reducing horsetail.

“But,” Lancaster said, “they’re going to come back, and so it’s going to take repeated herbicide applications in order to fully control them with chemistry.”

Research from Canada is uncovering other potential herbicide options, Lancaster said, “but there are not a lot of great herbicide options out there.”
Horsetails belong to the genus known as Equisetum, which means “living fossil.” Plants in that category tend to be found in wet areas, “so if you’re struggling with them in a cropping situation, one thing to think about is water management,” Lancaster said.

“Fortunately, we don’t find horsetail in production fields a lot,” she said. “Usually they are found in areas where drainage is poor and water stands for large parts of the year.”

For questions or to confirm whether a plant is horsetail or not, Lancaster is available by email, slancaster@ksu.edu.

Poison Hemlock and Goatgrass

Lancaster said she also routinely receives questions about poison hemlock and goatgrass this time of year.

Poison hemlock is – at its name suggests – highly poisonous. It is highly toxic to sheep, cattle, swine, horses and many other domestic animals, as well as humans. Hemlock “looks a lot like wild carrots,” Lancaster said, including a basal rosette and “lacy-looking leaves.”

“Poison hemlock will have red speckles on the stem once it starts to bolt,” Lancaster said. “If it’s in a pasture, you need to take care of it.”

Instinctively, she adds, cattle know to avoid poison hemlock based on having been around it: “So generally speaking, we don’t panic too much if we see poison hemlock, but if you’re someone who brings in cattle from another state or desirable forage is not available, it is more important to get rid of it or prevent cattle grazing in those areas.”

2,4-D and glyphosate products are effective on poison hemlock, Lancaster said.

Goatgrass is an ancestor of the red winter wheat varieties grown in Kansas, which means it’s particularly challenging to control in wheat fields and even in pastures, according to Lancaster.

Healthy wheat stands often out-compete jointed goatgrass, but drought through much of Kansas has provided an opportunity for jointed goatgrass to win some of those battles.

Lancaster said CoAXium wheat varieties – a production system that capitalizes on herbicide tolerant wheat -- are best for controlling jointed goatgrass.

More information on weed management is available in the eUpdate newsletter, published weekly by K-State’s Department of Agronomy, and from local extension offices in Kansas.

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