Mean seeds a threat to our four-legged friends

by Jeff Petzer

THERE’S A growing danger to dogs lurking in the grass.

The menace is known as “mean seeds,” a reference to several varieties of grasses that are on the rise throughout the region.

Mean seeds refers to the barbed, pointed seeds of native grasses and weeds such as foxtail, Canada wild rye and Virginia wild rye. These seeds, also known as grass awns, can be inhale or become attached to the dog’s fur, penetrating the skin and leading to the potential for grass awn migration disease.

Once inside the dog, the bacteria-laden awn can work its way through the dog’s soft tissue, leaving behind a trail of infection, sometimes with fatal results.

While any outside dog, as well as cats, can come in contact with mean seeds, sporting breeds are particularly at risk. And with the start of the fall hunting season at hand, Claverack member Paul Brown of Lovelot is on a mission to warn hunters going afield with their canine companions of the potential for danger, particularly near gas well pads and pipelines.

Although Brown has been active in the sporting dog community for many years, the 60-year-old had his first brush with grass awn migration disease two years ago.

His champion field trial retriever, Player, developed a persistent cough in late September 2012 that Brown suspected was kennel cough. Treating Player with a regimen of antibiotics didn’t clear up the hacking, and when the energetic black Labrador started coughing up blood in late October, Brown’s veterinarian recommended the ailing dog be taken to the Cornell University Hospital for Animals for further examination.

The team at Cornell scooped Player and discovered a 2.5-inch-long seed from a giant Eastern foxtail in the dog’s lungs. After removing the seed and lavaging the lungs, the dog recovered fully and has since returned to the field trial circuit.

Unsure where the foxtail seed came from, Brown asked Mark Madden, extension educator with the Penn State Cooperative Extension Service in Sullivan County, to determine if the plant was growing on Brown’s 220-acre property.

Sure enough, Madden noticed foxtail in a field of oats in Brown’s dog-training area, as well as along the edge of a gas well pad site near Brown’s property line.

Although Madden, who runs beagles, had never heard the term mean seeds and was unfamiliar with grass awn disease, he was very familiar with foxtail, a weed native to Pennsylvania.

“We’ve been dealing with foxtail for generations,” Madden said. “It’s an annual plant that doesn’t compete well until you disturb the soil. It’s often found along the edge of corn fields and on gas pipelines and well pads.”

And it’s those well pads and pipelines, abundant in the region due to the natural gas boom, that concern Brown.

“The big change from years past is the miles and miles of pipelines and the number of gas well pads we now have in northeastern Pennsylvania,” Brown says. Not only does soil disturbance cause foxtail to flourish, the conservation seed mixes used to reseed pipelines and well pads often contain Canada wild rye or Virginia wild rye, both native grasses and both now considered to be mean seeds.

In fact, the wild ryes are recommended in the reseeding guidelines contained within the Pennsylvania Department of Conservation and Natural Resources’ (DCNR) “Guidelines for Administering Oil and Gas Activity.”

Ellen Shultzbaugh, chief of conservation science and ecological resources with DCNR’s Bureau of Forestry, notes the ryes are included in the recommended seed mix because they are native, non-invasive cool season grasses that grow very quickly and are effective in erosion and sedimentation control.

The department became aware of the negative effect grass awns can have on
dogs about a year ago, according to Studnitzki, and has been working with Penn State University to investigate alternative conservation mixes that contain less of the wild ryes.

DCNR officials have also been discussing the issue with staff from the Pennsylvania Game Commission (PGC), which has already taken steps to reduce the Canada and Virginia wild rye seed component of its planting mix.

Dr. Benjamin Jones, chief of the habitat planning and development division for the PGC, said the agency began researching the grass awn migration disease issue in 2011.

“arly couldn’t get a handle on how widespread it was or how many dogs are being affected by it,” Jones says. “But to me that was irrelevant. It was on hunters’ and houndmen’s minds, so we had to take action on it.”

Richard Bednarczyk of Scott Township, president of the Pennsylvania State Fox and Coyote Hunters Association, says grass awns disease has been around for as long as dogs have been turned loose outdoors.

The 72-year-old Lackawanna County fox hunter said he owned three hounds that likely had grass awns disease in the 1960s and 1970s. One succumbed, and two survived.

“Nobody knew what it was back then, including the vets,” Bednarczyk says. “The common terminology used was ‘a bad abcesses.’”

About three years ago, several of Bednarczyk’s hunting partners’ dogs came down with awns disease, mostly likely from straw bedding that contained mean seeds.

“We lost five hounds to these bad abcesses,” Bednarczyk says. “One of the fellows who was treating these hounds could see the awns coming out through the abcesses.”

Despite the potential for danger, Bednarczyk says grass awns disease ranks low on his list of worries when sending his hounds afield.

“There are a lot of things I worry about when I take my hounds afield: guys shooting them, the highways, getting caught in snares, caught in traps, falling through ice, porcupines,” he says. “So awns disease is probably about 10th on the list. But having experienced it several times, I can tell you it is an awful thing.”

Symptoms of grass awn migration disease — lethargy, lack of appetite, fever and labored breathing — often don’t show up until the disease has progressed significantly. Treatment at that point is often lengthy and expensive. While Brown’s bill from Cornell was well over $1,000, for removal of the fecal seed from Player’s lungs, in instances where the awn has created a path of infection through the dog’s body, treatment can last weeks and costs can run over $10,000.

Brown, who says he has “waged jihad” against mean seeds since Player’s incident two years ago, hopes to see DCNR, as well as private landowners, curtail the use of wild ryes when seeding disturbed areas.

Extension educator Madden adds that property owners who grant land use for pipeline right-of-ways have the ability to stipulate the type of seed that gets planted on their grounds.

“It’s important for landowners to understand that those pipeline companies will very much be compliant,” Madden says.

For the hunters going afield with their bird dogs, retrievers and hounds, Brown recommends they be on guard against the deadly grasses.

“Be able to identify them and know the general areas they occur — pipelines, well pads and disturbed areas such as farm fields,” he says. “After the hunt, check the dog’s ears, check the eyes, go over the coat. You really have to look your dog over.”

Additional information about grass awn migration disease, as well as photographs of various types of mean seeds, can be found on The Grass Awn Project website, www.meancseds.com.