Dangerous “Awn Grasses” May Cause Horses to Stop Eating

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When owners think of things that can injure their horses, hay is probably not the first thing that comes to mind.

Of course, dietary changes can be the source of gastrointestinal upset and colic. But certain grasses present in hay can cause horses to develop blisters or lesions in their mouths, including painful ulcerations on the tongue, gums, cheeks, and lips. These sores can get so painful that a horse may stop eating, and the sores can become infected.

“There are many types of grasses that can cause mechanical injuries in horses due to the presence of grass awns,” said Dr. Patricia Talcott, a Washington State University associate professor who provides diagnostic toxicology services for the Washington nimal Disease Diagnostic Laboratory in Pullman .

Grass awns are the slender bristle-like or hair-like structures found on the seed heads of many grasses. “We get many calls throughout the year from clients whose horses are suffering from oral lesions, and most end up being related to certain plants in grass or alfalfa hay,” she said. “Mostly, the horses have eating problems, but the oral lesions and associated pain can be so severe that some owners have opted to euthanize their horse.”

There are several grass species that consistently cause mechanical problems in animals. These include bristlegrass or foxtail grasses (*Setaria spp.*), wild barley and foxtail barley (*Hordeum spp.*), bent grass or wind grass (*Agrostis* or *Apera spp.*), barnyard grass (*Echinochloa spp.*), feather finger grass (*Chloris virgata*), bromes (*Bromus spp.*), wild oats (*Avena fatua*), and needlegrass or speargrass (*Stipa spp.*).

“These grasses grow in many parts of the country,” Dr. Talcott said. “Most of the hay we see in the laboratory comes from northern Idaho and eastern Washington . Many of these grasses are so ubiquitous and common that people generally don’t recognize them as a problem.”

Another major problem with grass awns is that they can be hard to see in hay. Often these grasses grow as weeds and are baled along with timothy-mix grasses or alfalfa. “The awns don’t have to be horribly big to cause a lot of damage,” Dr. Talcott said. “They can be incredibly small and easily be overlooked, even when you are looking for them.”

A horse's swollen gums from grass awn irritation.

Lesions often mistaken for viruses

Not all horses on the same feed will develop sores, or experience the same degree of problems. Signs of grass awn irritation include bad breath, red, swollen, or receding gums, and lesions or ulcerations in the mouth and tongue. Sometimes grass awns are compacted in the gums. In addition, a horse may refuse to eat, and be very reluctant to have its owner or veterinarian look in its mouth. "Many times when owners see oral ulcerations in their horse's mouth, they get nervous and think the cause is a viral infection or some foreign disease or public health issue," Dr. Talcott said. "Others think it is related to a chemical burn, but it rarely is. Many don't think of grass awns."

A veterinarian should examine the horse and feed to determine the cause. If awns are the problem, a veterinarian can flush the wounds clean, prescribe and administer appropriate antibiotics and analgesics for associated infection and pain, and guide the owner about oral care, such as brushing, and what to feed the horse as it heals. "It does take time for a horse to heal and treatment does involve intensive care on the owner's part," she said. "It can be difficult to get a horse to eat, so an owner might have to resort to tube feeding.

After a couple of weeks, there should be improvement. "Mechanical irritation and sores from grass awns are completely preventable," Dr. Talcott said. "It is important for owners to know what they are purchasing when they buy hay, and to be able to recognize components in the hay they feed. If owners have questions about what is in their hay, county extension services are very useful and can help identify which grasses are present."

Lesion on a horse's tongue caused by grass awns in its hay.

Washington state residents can send suspicious plant samples to the WSU Extension for identification. Dr. Richard Old serves as the weed identification specialist and can be contacted at 509-335-2915.

Hay and plant samples can also be sent to Dr. Talcott at the Washington Animal Disease Diagnostic Laboratory for identification. For more information, contact Dr. Patricia Talcott at the Washington Animal Disease Diagnostic Laboratory at 509-335-9696 or **ptalcott@vetmed.wsu.edu**.