July 2019

Welcome to the Oklahoma Horse Health Newsletter, a joint effort between Oklahoma Cooperative Extension Service and the Center for Veterinary Health Sciences.

We are pleased to provide tips for new horse owners, the latest research on horse health, as well as updates on current events and workshops for horse owners.

Oklahoma State University
Center for Veterinary Health Sciences

Dr. Dan Burba, Head of the Department of Veterinary Clinical Health Sciences discusses what services Oklahoma State University can offer to horse owner's in
Tips for New Horse Owners

Tips for Tying
Brittani Kirkland, master's candidate in the Department of Animal Science, shares the where's and where not's for safely tying your horse. Great instruction for youth groups or gentle reminders for the rest of us.

Horses Needed!
Researchers at OSU Center for Veterinary Health Science are seeking client owned horses to participate in a research study examining the link between obesity and arthritis. Dr. Megan Williams discussed the trial, and what you may stand to gain.
Proper Foal Restraint
Dr. Cory Anderson resident at the Center for Veterinary Health Sciences, discusses the hows and why's of the proper way to restrain a foal.

Nexus Oklahoma 4-H Equine Makeover

Mckayla Hunt and Aubrey were the winners in the inaugural Nexus Equine Oklahoma 4-H Makeover challenge. Ten Oklahoma 4-H members received their project horse, a horse looking for a new place in life, from Nexus Equine. Nexus is a nonprofit organization dedicated to helping horses find the next chapter in their lives. McKayla and Aubrey completed the 90 day challenge with a demonstration in
We’ve recently learned that Aubrey will be staying permanently with Mckayla and continuing their journey together.

I apologize for the shaky video. It was very emotional:)

---

**Are Clovers Good for Horse Pasture and Hay?**

*Brad Secraw, Cleveland County*

I recently received a call from a fellow wanting to know how to get rid of the clover in his horse pasture. He had read online that clover was bad for horses. While I do really like the internet and all the valuable information it allows us to share, sometimes we do not get the whole picture. Additionally, regional differences can be very significant, so localizing the information you find online is also important.

Bottom line up front. Clover in moderate amounts is beneficial in horse pasture and hay. Clover is palatable, high-quality forage (often greater than 18% protein), and it fixes nitrogen in the soil. Some clovers in other parts of the U.S. have been associated with several health issues in horses when it exceeds 20% to 40% of a forage stand and becomes infected with fungal pathogens. However, due to our climate here in central Oklahoma, it remains to be seen if these health issues will occur.

The clovers often associated with health issues include alsike, sweet, red, and white. Sweet clover is commonly found on roadsides and was commonly grown for erosion control, honey production, and forage. Its downfall was its tendency to cause excessive bleeding in livestock when sweet clover hay became moldy. Alsike clover and to a lesser extent other legumes have been linked to photosensitivity skin reactions and liver disease. However, there seems to be some conflicting information as to whether this is caused by the clover itself or a fungus that also causes Black Blotch Disease (*Cymodothea trifoli*). White and red clover are associated with temporary, excessive salivation commonly called ‘slobbers’ when the clovers are colonized by the fungus *Rhizoctonia leguminicola*. It is considered to be largely harmless; although, a consult with a veterinarian or at least keeping a close eye on the affected horse is advisable. Dehydration, hoof issues and more severe issues are possible though rare.

If you notice, all of these health issues are associated with some kind of fungus. They are more likely to occur in pastures with large amounts of clover. They are also more likely to occur in wet, humid springs like the one we are experiencing now.

You may also come across information stating that clovers can cause colic, but that typically occurs in horses not properly acclimated to clover pasture. Keep in mind
horses can colic on lush spring grasses as well. This is another reason to have a well-designed dry lot to control pasture access.

Here in Cleveland County we don't see as many of the perennial clovers as they do not tolerate our typically hot, dry summers very well. Many pastures have annual clovers like crimson and arrowleaf seeded into them. Unfortunately, there is little information about whether these clovers create the same problems as red, white and alsike perennial clovers.

Keeping all this in mind, how worried should we be about the presence of clover in our pastures? Just because your horses have never experienced one of the mentioned health issues, doesn't mean that they will not in the future. While the likelihood and risk of any of these causing death is very low, for some horse owners, it still is not as good as no risk at all. Then again, there is no such thing as a zero risk pasture or farm for that matter.

Ultimately, the goal is not to eliminate clover from a horse pasture. As stated earlier, it is beneficial in moderate amounts. Instead, we are looking to manage it, and knowing which type(s) of clover we have is the first step in managing the risk of health issues. This will not only give us an idea of problems to look for in our horses but also how to manage our pasture to prevent issues. Monitoring the amount of clover we have during wet springs is the second step. Thankfully, although clovers can and do naturalize here, they rarely make up a large portion of the forage in a pasture. Lastly, applying cultural and chemical control methods if they do become excessive will keep them in check. Avoiding overgrazing of pasture grasses will help keep clovers and broadleaf weeds from becoming excessive. Your local county extension office can help with clover management as well as other equine related questions.
Natural fluctuations in hormones and metabolic processes are well known to occur in humans and animals, but their importance in the horse are gaining more recognition. Well most are well familiar with the impact of seasonal changes: growing haircoat, cycling in mares etc. the daily rhythms of equine life may impact their ability to perform and even perhaps their chances of injury. Dr. Barbara Murphy and others from the University College Dublin have examined the effect of seasons, lighting and daily routines of horses. The metabolic processes associated with movement and activity are typically highest in the daytime, when most equine activity occurs. However, they found that in horses exercised on a regular time schedule, that key muscle enzymes and metabolic processes were upregulated prior to when exercise began in anticipation of the exercise bout. This may have practical implications if competition occurs at a different time than when the body is geared up for peak performance. The lighting the horse is under may also be critical. While we may tell kids to put the phones away to help with sleep, the same may be true for horses. Blue light corresponds with day, and blue light added to a horse at night can interrupt sleep patterns. The use of red lights to monitor horses at night is encouraged as an alternative. Stable lighting may also impact horse health, as some types of lights do not provide the full spectrum of UV light see with natural daylight. The use
of blue lights may have direct economic impacts as blue lights used in broodmares, can not only hasten cycling in the spring, but can increase birth weight and shorten gestation in pregnant mares. 


**Bits and Pieces**

---

**Cleanliness and Disinfectant**

- Real animal diseases
- Reemphasize modes of transmission
- Activity A. Handwashing

SCRUB Kits: Science Creates Real Understanding Biosecurity. Activities for Youth. Are you interested in piloting STEM classroom activities with youth you mentor? We are looking for volunteers and teachers to test new curriculum teaching biosecurity protocols with animals. Contact Dr. Kris Hiney for more information.

---

**OSUHorse Webinar Wednesdays**

Join us on the first Wednesday of the month, *except for July*, for a free webinar series on equine health, research updates and youth activities.

July webinar: July 17 at 6 pm. Dr. Karen Waite, equine extension specialist at
Michigan State University discusses sportsmanship and its promotion in youth equine competitions.

Join via Facebook live or Zoom links: https://dasnr.zoom.us/j/833339655
Joining via a zoom link allows participants to directly ask questions.

Archived webinars can be found at OSUHorse.com
- Winter Horse Care
- State 4-H Horse Show
- End of Life Decisions
- Internal Parasite Management
- Breeding Soundness Exams
- Research Updates from the 2019 Equine Science Society symposium

---

**Upcoming Events and Industry Updates**

**Continuing Education:**
July 22 - Equine and Livestock Behavior and Handling. 9-5 pm at the Lazy E Arena in Guthrie, OK. This workshop covers equine and cattle identification, behavior and handling for law enforcement, first responders and animal response volunteers both in class and with live animals. The class is accredited for 8 hours of CLEET training. Contact Dr. Hiney for more information.

**Adult/volunteers**
July 16-18 - Big Three Field Days. Agriculture educators and 4-H volunteers are invited to participate at no cost in workshops to utilize SCRUB (Science Creates Real Understanding of Biosecurity) curriculum. This fun, interactive hands on STEM based lessons teach students the how and ways of biosecurity in keeping animals healthy. For more information, contact Dr. Kris Hiney: khiney@okstate.edu
Youth Events
Nexus Oklahoma 4-H Equine Makeover. On June 29 10 youth presented their horses to a panel of judges and the public at Heritage Place to show the results of their 90 day challenge. Mackayla Hunt and her partner Aubrey were declared the winner. The 6 year old POA mare underwent an incredible transformation, culminating in bridleless riding and wading into a kiddie pool!

Applications for the next round of the challenge are due July 8th.

Nexus Equine is a non profit organization which connects horses to new owners. The next round of the Equine Makeover will begin July 20. For more information: http://osuhorse.okstate.edu/4-h-and-youth-activities/nexus-equine-4-h-equine-makeover