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Have Your Horses Had Their Annual Vaccines?

All horses should, at a minimum, have vaccinations against Tetanus, Eastern and Western Encephalitis (sleeping sickness), West Nile Virus, and Rabies. A Wellness Exam is also recommended to catch potential problems early and maintain the health of your horse. Some horses will also need a Coggins test and other vaccines depending on their use and traveling plans. If we haven't seen your horses yet this year, give us a call right away and we will schedule a visit. It's not too late to get caught up.

Starting to Go Green

We are preparing for a new medical and management software package that will be installed this Fall. One of the advantages of the new program will be the ability to e-mail out reminders, timely information, and our newsletters. This will help us reduce the amount of paper and ink used in printing, as well as save some postage costs. As a first step in this plan, we would like to start collecting e-mail addresses and storing them with your account information.

Please consider taking a moment to send us an e-mail with "green" in the subject line to DVMS@OkeefeEquine.com. Include your name and address so we will be able to attach the information to the correct account. We'd be happy to update phone numbers as well if you include them in the body of your e-mail. We will send back a brief reply to let you know we've received your information. Thank you for your assistance; we hope this will prove to be of great benefit for our clients as well as us.



*This photo was taken at the National Eagle Center, Wabasha, Minnesota.
www.nationaleaglecenter.org*

Can You Take the Heat? Supplying Water and Electrolytes

With temperatures rising as we make our way through August, it is time for some new tips and tricks to keep your horse healthy during these hot summer months. The warm temperatures and relatively high humidity of our local climate increase stress on your horse. Horses rely on sweating to control their body temperature both while standing idle and especially while exercising. This necessary body function has as a side effect the loss of large quantities of both water and electrolytes. Without some sort of compensation for these losses, a horse cannot perform at its best and even has a potential to develop some serious medical problems especially during and after exercising.

A horse's body mass is more than sixty-five percent water so with nearly ninety gallons of water in an average horse, how do you decide how much water intake is needed? A good rule of thumb for a relatively idle 1,200 lb

horse on an average temperature day is a minimum of four to five gallons of water a day. Some of these daily needs are met due to the water contained in a horse's diet. Horses eating from a lush pasture will meet much of their water requirements from grass alone, however, drier diets such as hay require more water be consumed.

The activity level of each horse is another factor in daily water needs. A horse that exercises more will sweat more (to keep cool while working hard) and consequentially will need an increase in water intake to balance the loss. Figuring out how much water your horse needs may be starting to sound like a complicated and tricky business but there is a simple answer. In most cases the horse knows what he needs; all we have to do is make sure to provide him with plenty of water. At least two buckets of fresh water should be hung in a horse's stall. During hot weather those buckets will need to be cleaned and refilled often.

Replacing water is an important requirement for sweating during hot, humid weather, but electrolytes are equally important and should not be forgotten. Horse sweat is rich in sodium, chloride, and potassium as well as smaller quantities of calcium, magnesium and numerous other electrolytes. These electrolytes are crucial for many body functions including normal nerve and muscle function.

Due to the importance of maintaining a proper electrolyte balance, a daily electrolyte supplement is key. Most hay or pasture diets provide plenty of potassium, but sodium and chloride are more troublesome to replace. Even a fairly inactive horse is often only marginal in regards to their sodium and chloride intake; trace mineral salt is a must for every horse.

While a salt block is perfectly adequate to supplement an idle horse, recent studies have shown that an active, athletic horse does not voluntarily take in enough salt from a salt block alone. An additional salt supplement may be necessary for more active horses.

There are many electrolyte supplements available. Some can be added to a horse's feed, while others are paste formulations to be administered to the horse before or during athletic activities. Either type of supplement can be effective, but be sure to read the product labels carefully. Take note of the quantities of sodium, chloride, and potassium in the product; you will want to avoid supplements that contain a lot of sugar and very little else.

In special circumstances, such as periods of high heat and stress, prolonged exercise, competition, or travel, you might need to give your horse an extra electrolyte supplement, often in a paste form. In addition to sodium, potassium, and chloride, this extra supplement should also contain calcium and magnesium to help prevent medical disorders such as "thumps" and muscle cramping. Recent studies have shown that use of electrolyte pastes before and during prolonged exercise situations is both safe and effective. A good general routine would be to administer a dose of electrolyte paste the morning of a competition, at a break period halfway through the day, and after the competition is over.

To get the maximum benefit of electrolyte supplements the horse must also consume water. The first one to two minutes after an exercise is the best time to offer water; during this period horses will often drink one-and-a-half to three gallons of water. Water consumption is notably higher if the water bucket is offered right after stopping exercise, so make sure water is available as soon as possible.

Of course each horse is different and has different needs. We would be happy to consult with you to determine what works best for your horse, but to sum up the general message: all horses need plenty of fresh water and a source of salt. Be sure to clean your water buckets daily and provide a salt block. Some horses will need extra electrolyte salt supplements in addition to a trace mineral salt, and athletic horses, during periods of hard work or stress, may require an extra paste electrolyte supplement.

During this hot weather, don't forget yourself. A good supply of water and electrolytes is important for humans, too!

A Word About Worms

A few new ideas concerning deworming your horse has led to many magazine articles with new confusing terms. Parasite resistance, fecal egg counts, targeted deworming and strategic deworming are all terms hitting the press these days, but what exactly do they mean to you and your horse? Here is a description of some of these terms, and a review of the current thinking on the war on worms.

Parasite resistance is not new; it is a problem that has been around as long as dewormers have been. Recent studies confirm parasites are gaining resistance to modern dewormers and that the length of time between a successful deworming and worm egg reappearance is shortening, indicating resistance. The two most common mistakes that owners make that can promote parasite resistance are repeated use of the same deworming product and under-dosing when deworming. It is necessary to remember the same chemical is sold under many different names (e.g. Zimecterin, Ivercare, Equell, and Rotectin are all the same drug). Be sure to read the label for active ingredients. As for

under-dosing, one size does not fit all. If your horse is over 1200 pounds, he may need more than one tube. Also, many owners grossly underestimate the weight of their horse; this is a problem that can cause failure of the parasite control program and help worms gain resistance. When we visit ask us to help determine your animal's correct weight. It is important to note that rotational deworming schedules were developed to help fight parasite resistance and current studies indicate they are still effective.

Fecal egg counts (FEC) are laboratory tests that calculate the number of eggs per gram of manure to define the level of parasite load for an individual horse. Testing several horses or every horse in the herd can give an indication of parasite load in the herd. These tests can be done just before deworming, about 14 days after deworming, or two to three months after deworming depending on what information is sought. Fecal egg counts can identify animals shedding large numbers of parasite eggs or find if a particular deworming medication was effective. However, there are some significant limitations to fecal egg counts. There is no consensus among experts what level of eggs in the horses' manure is normal. Getting our horses worm free with a zero FEC is not the desired goal nor is it practical. Also, in this area of the country worms are seasonal egg shedders. During the winter and the middle of summer worms do not produce as many eggs so that even a heavily parasitized animal may have a normal FEC. Finally, small strongyles as part of their life cycle migrate into the wall of the intestine and form a cyst stage that produces no eggs and is resistant to most deworming medications; obviously these worms are not detectable with an FEC. After an effective dewormer removes the adult worms, these encysted stages may emerge, become adults, and start producing eggs leading you to believe the original dewormer was not effective.

Targeted deworming involves testing horses using fecal egg counts to determine when to deworm each horse and which horses are heavy egg shedders so they can be dewormed more often. There are many horses that develop some ‘immunity’ to intestinal parasites and require deworming less often, possibly just twice a year. Still other horses become reinfested quickly after deworming and require six times a year deworming. Fecal egg counts are used to classify each of these categories of horses. Targeted deworming may leave a horse at risk if the FEC does not accurately reflect the horse’s current parasite load due to the reasons mentioned earlier. Also, developing an effective targeted deworming strategy requires multiple FECs be performed on each horse, especially in the first year, which may be prohibitively expensive for some farms. A single FEC can cost as much as forty dollars.

Strategic deworming is the process of developing a plan on how and when to deworm your animals, what products to use, and how to monitor that plan. The three main plans used to control internal parasites are daily deworming, rotational deworming, and targeted deworming. Daily deworming using the drug pyrantel in a pellet form and top dressed on the feed daily is still an excellent method of controlling worms. This plan also utilizes twice a year deworming with a paste to kill bots and tapeworms. Some of these products are backed by a manufacturer’s protection plan that pays for colic surgery if ever needed. Rotational deworming using a four or six time per year rotation is still the most utilized method of deworming the horse. Rotating between chemical classes protects against resistance, and uses products that kill all classes of parasites. Research continues to show this is a good system for controlling internal parasites. (See our website for examples of rotation programs.) Finally, there is the targeted deworming plan based on doing a series of fecal egg counts to

determine the level of parasitism of each animal and individualizing a program for each animal. This plan has limited situations where it might be the best option; please consult with us if you are interested in setting up this program.

The choice of deworming products and plans is ultimately that of the horse owner or farm manager but consulting with a veterinarian is beneficial and strongly advised. We can evaluate your current program, recommend modifications, and offer advice regarding fecal testing for internal parasites to help ensure that your horses are benefiting from the best possible program to control parasites and anthelmintic resistance.

Still thirsty for information?

Here are some articles to explore:

Fecal Egg Counts:

www.thehorse.com/ViewArticle.aspx?ID=10428

Fluids and Electrolytes:

www.thehorse.com/ViewArticle.aspx?ID=214