**Don’t Forget the Basics!**

There are many new and exciting treatments, procedures and medications in veterinary medicine but when it comes to your horse’s health don’t forget the basics. Every owner should have a good vaccination, deworming and dental program suited for their horse. Following preventive programs for vaccinations, deworming and dental health is the best safeguard against disease or other health conditions that require costly treatments to resolve. These basics are a good foundation for a long, healthy, productive life for your horse.

**Vaccinate now or treat later?**

Vaccinations might seem like a simple topic but as the first line of defense to protect your horse from disease they are a vital component to your horse’s health. Vaccines are a biological preparation of either a weakened or killed strain of a particular virus or bacteria or its toxins that when given to a horse, will stimulate an immune response with the body producing antibodies against the disease and thereby providing protection for the horse. The cost of an effective vaccination program will always be less than the cost of treating a life threatening disease.

Vaccination programs should be tailored to the individual horse and his situation taking into consideration multiple factors such as region, environment, exposure to other horses, and what the horse is used for such as pleasure, competition or breeding. Your veterinarian is always the best resource for designing the vaccination program most suited for your horse’s needs.

Regardless of region or other contributing factors to your horse’s vaccination program, there are 5 core vaccinations recommended by the American Association of Equine Practitioners that every horse should receive annually. These include Tetanus, Eastern/Western Equine Encephalomyelitis, Rabies and West Nile Virus. Other risk based vaccines include Botulism, Equine Herpes Virus, Equine Influenza, Potomac Horse Fever, Rotavirus, Equine Viral Arteritis, Anthrax, and Strangles. Your veterinarian is familiar with the diseases most prevalent in your area and should be consulted on which vaccines need to be incorporated into your horse’s program.

Adverse reactions to vaccines are very rare when administered appropriately. However, as with any injection there is always a potential risk of a reaction. Fortunately, the vast majority of these reactions are a local injection site reactions with moderate swelling which usually require very little, if any, medical attention from a veterinarian. However, although extremely rare, there are incidences of anaphylaxis (life-threatening allergic reaction) to the vaccine which require immediate attention by a veterinarian.

All vaccinations are intramuscular (IM) except Flu-Avert, which is intra-nasal. It is not required to have a veterinarian administer vaccinations but owners who wish to handle their horse’s vaccinations should fully understand how to handle and store vaccines, be comfortable with giving IM injections, and know how to handle adverse reactions should they occur. Even if you are able to administer your own vaccinations it is always important to work with your veterinarian on proper vaccination guidelines and schedules.

**New protocols for deworming management**
For years, veterinarians and horse owners have correlated rotational deworming of horses with any number of paste dewormers on a predetermined schedule to be adequate control of internal parasites. With the absence of any new class of deworming products over the past 20 years and with the overuse of dewormers available, anthelmintic resistance is becoming a problem and needs to be addressed. Understanding that all dewormers vary in their clinical effectiveness on different species of parasites and at different stages of their lifecycle, we need to be more critical of which dewormers are used. Other factors that influence this decision include length of time each dewormer is expected to be effective and timing of when each treatment should occur.

A targeted selective approach to deworming is the newest recommendation to aid in slowing anthelmintic resistance and managing intestinal parasites based on individual animals rather than a ‘blanket’ treatment of the entire herd.

When designing an individual horse or herd program, we must consider the egg reappearance period of each dewormer, individual horse susceptibility, climatic factors, and current anthelmintic resistance. The egg reappearance period (ERP) is the time from deworming until eggs are detectable in fecal float, and varies between the three classes of dewormers. The ERP helps determine the timing between treatments, and varies based on which product is used from 4 weeks up to 12 weeks. Horses possess varying levels of natural immunity to internal parasites, resulting in 25% of horses in a herd producing 80% of the eggs found on pastures. This level of individual susceptibility can be determined by using fecal egg counts per gram (McMasters), following a period of 3-4 months (winter or summer) without deworming, and then designate each horse as a low (<200epg), moderate (200-500epg), or high (>500epg) egg shedder. These groupings allow us to treat individuals based on need, and instead of overusing dewormers.

Climatic factors provide a great deal of natural parasite control, and needs to be considered when timing deworming. Small strongyle larvae cannot survive on pasture above 85F, and the development of eggs to larvae is suspended under 45F. These factors result in a period of time during the summer (June, July, and August) and winter (December, January, and February) when deworming is not necessary in all horses, except for the high egg shedders. Anthelmintic resistance can be determined by performing a fecal egg count reduction test (FECRT) for each class of dewormer. A fecal egg count should be done prior to administering the dewormer and repeated 14 days post treatment. Resistance can be defined as a less than 90% reduction in fecal egg numbers following a specific dewormer. Once a farm’s parasite population has been identified as being resistant to a dewormer, that product should no longer be used on that farm for that parasite.

Horse owners should work closely with their veterinarian to test their horse’s parasite status before administering a dewormer. By being selective in choosing when to treat, what to treat with, and which horses to treat, the targeted selective approach can decrease deworming costs by up to 50% at the same time providing superior control of parasites and decreased resistance.

**Straight from the horse’s mouth**

Dentistry is an important part of the overall health and well-being of the horse. Just as routine dental hygiene helps people prevent tooth decay and periodontal disease, routine dental re-equilibration (floating) performed by a knowledgeable and experienced practitioner can alleviate pain and prevent many dental disorders. Tooth root infection in the horse is a relatively common disorder occurring primarily in the cheek teeth. Causes of tooth root infections are numerous including fractures, developmental disorders, blood
borne pathogens, etc. Developmental disorders in young horses include too numerous cheek teeth, which creates overcrowding and can lead to incomplete eruption or impaction of cheek teeth. Also, too few cheek teeth can leave gaps between teeth and increase the chance of periodontal disease. Periodontal disease begins at the gum level surrounding the tooth. Perhaps the most common cause of apical infections (infections of the tooth root area and surrounding tissue) is the spread of bacteria in the blood. The horse has a tremendous blood supply to erupting teeth (eruption bumps) and may explain why we see more of these infections in young horses that have rapidly developing tooth roots.

Symptoms of dental disorders include loss of appetite, dropping excessive amounts of feed when chewing, swelling along the jaw, malodorous discharge from the nose or jaw, and a sudden resistance to accepting a bit. These symptoms may be obvious or subtle. With these suspicious clinical signs, a thorough oral exam with mouth speculum is warranted to determine if there is a dental problem. You may also want to have your veterinarian show you how to safely examine your horse’s mouth. Regularly monitoring your horse’s teeth and gums will give you a baseline normal and enable you to notice any changes or abnormalities if they occur.

It is recommended that adult horses have their teeth “floated” once per year and that horses younger than 5 years of age have teeth “floated” twice per year. In younger horses it is important to evaluate the development of permanent teeth as well as the shedding of immature teeth (caps). Geriatric horses have their own special needs and should be evaluated annually or more often if colic, choke or other medical concerns arise. Understanding your horse’s oral health needs and maintaining the appropriate exam and floating schedule will keep you and your horse smiling.