

# WEED CONTROL

## *What is a weed?*

Any unwanted specie growing in competition with the desirable forage.

- **Remember:** Over-grazed land is the perfect environment for weeds to overrun your pastures. Maintain proper stocking rates to reduce this stress, rotational grazing is often the best strategy!

## Control Mechanisms

### **Mechanical Control:**

Keeping your pastures mowed regularly will reduce weeds and increase desirable forage.

### **Biological Control:**

Involves the use of living agents to damage and kill weeds. Commonly used against Tropical Soda Apple.

### **Chemical Control:**

Most common method for weed removal. The use of herbicides to inhibit certain life processes within the weed, slowing and killing their growth,

## TIPS!

Walk your pastures often to identify weeds.

Contact your local Extension Office if you are unsure which weeds are present.

The best weed management plan is an integrated plan that utilizes more than one control mechanism.

Always read the label on any herbicide to ensure proper timing and application rate!

Understand the lifecycle of the weed you wish to target before applying any control mechanism.

# Raising a Foal

Proper breeding and subsequent raising of foals is vital and helps give a strong foundation to the horse industry. Here are a few tips to think about when dealing with newborn and growing foals.

## Newborn Care

- It is important that the mare foal in a quiet, dry, clean place. Provide extra bedding in the stall. Have dry towels close by in order to wipe off the amnion from the foal if necessary.
- Dip the umbilical cord in one part Novalsen and four parts water to sterilize it.
- The foal should begin nursing within the first 2-3 hours in order to receive sufficient colostrum. Assistance may be required if the foal is too weak to nurse, bottle feeding of colostrum is a possibility in extreme cases.

## Health

- Deworm and vaccinate on a proper schedule according to veterinarian recommendations.

## Exercise

- If weather permits, foals should begin exercising in a small paddock one day after birth.
- After 10-12 days mare and foal can be mixed with other herd mates.
- Keep close watch and do not allow foals to tire too much. A foal should sleep about half of daylight hours.

## TPR

- Temperature: 99-102 F
- Heart Rate: 70-100 beats per minute
- Respiration: 20-40 breaths per minute

More Information:

<http://bit.ly/FoalCare>

## Diet

- Foals consume 21-25% of its weight in milk.
- Foals initially nurse up to 7 times an hour, decreasing as they age.
- Creep feed foals starting at 2 weeks of age for optimum growth.

## Handling

- Foals should be handled regularly and taught to halter and lead early on.
- Handle the foals tail, feet, face, and ears to begin desensitizing them to regular horse handling.
- Handling training should be calm and quiet.



# EQUINE COLIC

Colic is a general term used to describe abdominal pain, and can be broken into two main categories, strangulating and non-strangulating lesions. Strangulating lesions cut off blood supply to the lumen, while non-strangulating lesions do not. Strangulating lesions can generally not be prevented.

## STRANGULATING LESIONS

Parts of the intestine become twisted and stuck in the abdomen or other parts of the intestine and blood flow is stopped, or the large colon may become twisted, again stopping blood flow.

## NON-STRANGULATING LESIONS

- Spasmodic (gas) Colic- Spasms caused in the intestines and colon by increased gas production.
- Large Colon Feed Impaction- The large colon becomes blocked with feed material
- Large Colon Sand Impaction- The large colon becomes blocked by sand
- Ileal Impaction- The ileum (final section of the small intestine) becomes blocked by feed material. Occurs primarily due to coastal hay consumption.

## SIGNS OF COLIC

- Decreased or complete loss of appetite
- Reduced or absent fecal production
- Flank watching
- Pawing, rolling, or lip curling
- Stretching out and 'tied up' in flank
- Constantly getting up and down
- Abnormal Physical Exam

## NORMAL PHYSICAL EXAMINATION

- Temperature: 99-101.5 F
- Heart Rate: 24-48 beats/min
- Respiratory Rate: 10-24 breaths/min
- Manure Output: 6-10 piles/24 hours
- Mucous Membranes: Pink and moist
- Capillary Refill Time: <2 seconds

## PREVENTING COLIC

- **High quality hay**
- Regular exercise
- Deworming and dental programs
- Divide daily concentrate feedings
- Adequate forage (at least 1% of body weight/day)
- Slowly introduce new diets
- Adequate water intake
- Rubber mats below feeding areas to reduce sand intake

## IF YOU NOTICE SIGNS OF COLIC

- Sooner is ALWAYS better- Call your veterinarian! Especially if pains are severe
- and persistent despite Banamine/sedative,
- there is an abnormal physical exam, or
- chronic signs that do not stop.

# EQUINE BEST MANAGEMENT PRACTICES

As the population in Florida continues to increase exponentially we will demand a 20% increase in available water by year 2030, maintaining the quality of our ground and surface waters is imperative for growth.

## Farm Management:

### **Manure Management:**

Store on impervious surface away from water sources!

Cover manure piles to prevent runoff from rain events.

### **Pasture Management:**

Maintain proper stocking rates, recommended 2 acres per horse.

Utilize sacrifice areas and controlled grazing to maximize your space.

### **Water Resource Protection:**

Be aware of any low-lying areas or sinkholes on your property and minimize equine access to these areas in an effort to reduce erosion and ensure nutrient runoff is mitigated.

### **What is a "BMP"?**

A "best management practice" that is field tested to minimize environmental impact from an agriculture industry.

### **Tips!**

Develop a simple compost system to manage your manure and generate a soil amendment for your pasture.

Temporary fence can be an economical, simple, and easily managed technique to implement rotational grazing.

Do not spread uncomposted manure onto your pasture, this will negate efforts to promote grass growth and will spread weed seeds and parasites.

Planting permanent vegetation between production areas and waterbodies can decrease the velocity of runoff and sediment.

Bahia grass should only be grazed to 2" before horses should be removed from the area to allow for a regrowth period.





# Saddle Fitting

Saddles of course vary in different disciplines and the different style will determine fitting guidelines. The following tips are for fitting western style saddles:

- The gullet should rise two inches above the withers. If it is less, than the saddle bars are too wide, if it is over two inches the bars are too narrow.
- Consideration should be taken on how long the saddle is compared to the length of the horses back. Too long of a saddle can put too much pressure on the loin area and will not sit evenly.
- Rider should fit comfortably in the saddle as well, consider seat size and style.
- The saddle should sit over the ends of the shoulder blades.
- A proper saddle fit should cause the horse to sweat evenly under the saddle. If there are dry spots, the saddle is putting too much pressure there.



- Bad behavior can often result from a bad saddle fit, make sure there is no saddle pain when fixing behavior problems.
- Saddle fit is essential for horse and rider comfort, consider these tips when purchasing a new saddle or horse.

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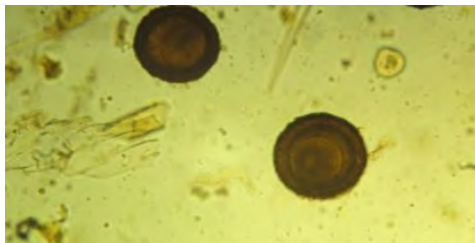
Caitlin Bainum, Marion County  
Jane Griffin, Suwannee County  
Alicia Halbritter, Duval County



# DEWORMING USING FECAL EGG COUNTS

## WHAT ARE FECAL EGG COUNTS?

A fecal egg count test is a microscopic examination of the parasite load present in a horse. Adult parasites inside of the horse lay eggs, and the eggs are deposited in manure.



**Figure 1:** Large round worm eggs. Photo courtesy of Dr. Evans and Dr. Rood

## WHY SHOULD I USE FEC?

Fecal egg counts allow owners to use only the dewormers necessary to treat only the horses that need to be treated. This saves money and decreases the chances of parasites becoming resistant to dewormers.

## HOW DO I START USING FEC?

Fresh manure samples must be collected and properly managed and analyzed to perform an FEC. Contact your veterinarian or local UF/IFAS Extension Agent



Caitlin Bainum, Marion County  
Jane Griffin, Suwannee County  
Alicia Halbritter, Duval County

## SUGGESTED WORM CONTROL PROGRAM

- **October 1st:** Begin worm control cycle. Perform an FEC on all horses but treat all horses regardless of results. Use ivermectin or moxidectin
- **December 1st:** Only if ivermectin was used. If the FEC >500 in October, treat with oxbendazole and/or praziquantel. If October FEC was 200-500, you may/may not decide to treat horses. FEC for all horses considered for treatment.
- **January 1st:** Treat all horses regardless of FEC. Use ivermectin/praziquantel or moxidectin/praziquantel. FEC for all horses.
- **April 1st:** Only treat horses with high FEC (>500) if moxidectin was used in January. Not necessary to perform FEC on any horses.
- **May-September:** No treatment necessary, too hot for transmission as most eggs will not develop to maturity.

## FOR MORE INFORMATION

Contact your veterinarian or local UF/IFAS Livestock Agent

<http://cflag.ifas.ufl.edu/documents/2009EquineInstit/Kaplan2.pdf>



# Re-seeding Bahiagrass

Proper grazing management is the best insurance on bahiagrass pastures, but re-establishment is sometimes necessary.

Follow an 8" and 3" grazing rule; when the grass reaches 8" allow horses to graze, and when it reaches 3" remove animals from the pasture.

## Essentials to re-seed:

- **Time-** To achieve a well-rooted stand of bahiagrass allow for at least a year of undisturbed growth, remove all animals during this time.
- **Moisture-** Success of establishment is dependent on moisture, be prepared to provide water to the pasture or plant during the rainy season.
- **Fertilization-** Always start with a soil analysis of the area. Fertilization after planting followed by an additional application post emergence is recommended.
- **Planting method-** Plant seeds 1/4"-1/2" deep, roll or pack the soil to encourage seed to soil contact.

*For more information on bahiagrass management:*

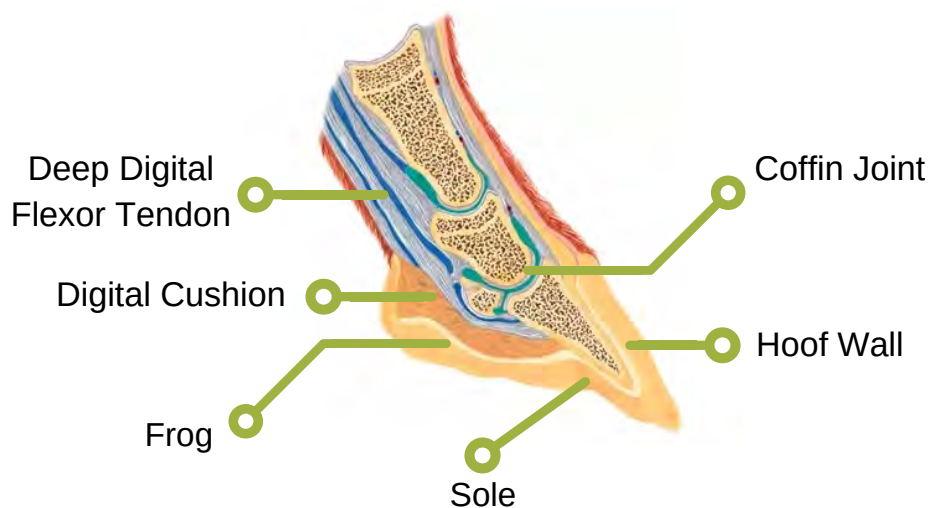
<http://edis.ifas.ufl.edu/ag342>



*Horse Herald*

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# Understanding the Hoof



The hoof is composed of many parts, all working together to function. The above labeled parts all play a role in bearing weight and providing shock absorption. By manipulating the outer hoof, your farrier can make a great difference in your horses stride.

The goal of trimming and shoeing horses is to maximize bio-mechanical efficiency, meaning your horse completes each stride with as little effort as possible. The foot should land flat (outside and inside meet the ground at the same time) and leave the ground heel first, toe last with minimal resistance.

Ask your farrier about why they trim or shoe your horse a particular way, this can help you better understand why your horse moves a certain way, and can give you signs on when they are ready for the next farrier visit.



Learn more about the basic science of farrier work here:

<https://practicalhorsemanmag.com/health-archive/shoe-soundness-performance-30286>





# Equine Vaccinations

Vaccinations are part of a successful horse health management system, but it is important to keep in mind that there is no set vaccination schedule that fits every horse, and individual programs should be developed with you veterinarian. Age, sex, geographic location, use, and pregnancy status all impact the vaccine needs of horses. Vaccinations help prime horse immune systems to respond to disease pressure, and are not a substitute for other good management practices.

## **RABIES**

Although rabies is uncommon in horses, it always results in death of the animal. Horses become infected after they are bitten by a feral animal with rabies. Therefore, a rabies vaccine is usually advised

## **WEST NILE VIRUS**

West Nile Virus is transmitted by mosquitoes and causes neurological symptoms. The death rate for this virus is 33%, and all horses should be vaccinated annually.

## **TETANUS**

Tetanus is the result of spore-forming bacterium that are present in the intestine and manure of horses, as well as the soil. Spores can survive for years in the environment and infect the animal via wounds, cuts, and or openings such as the umbilicus of foals. All horses should be vaccinated annually.

## **EQUINE ENCEPHALOMYELITIS**

EEE, WEE, and VEE are transmitted by mosquitoes and result in neurological issues with a 50-90% death rate. Annual spring vaccination is recommended for all horses.

## **EQUINE HERPESVIRUS TYPE-1 AND TYPE-4**

EHV-1 and EHV-4 cause respiratory infections, although EHV-1 can also cause neurological disease, abortion, and foal death. Transmitted by air, direct contact, or drinking water. Vaccination is recommended for pregnant mares, young horses, and horses with a high risk of exposure

## **BOTULISM, ROTAVIRUS, AND EQUINE VIRAL ARTERITIS**

These vaccines are used more commonly in breeding populations.

## **FOR MORE INFORMATION**

Contact your local UF/IFAS Livestock agent or ask your veterinarian.

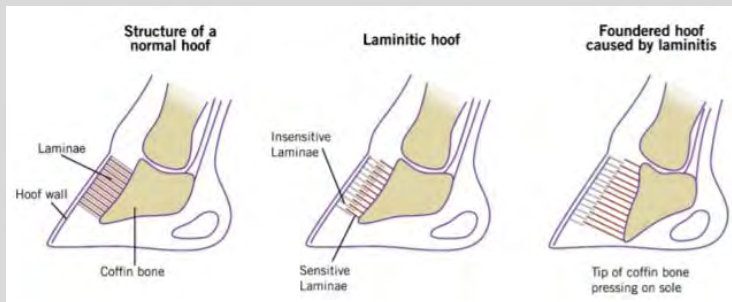
[www.aaep.org](http://www.aaep.org)

## Equine Laminitis

Laminitis is caused by a disruption to the blood supply of the hoof laminae, the tissue that bonds the hoof wall to the pedal (or coffin) bone. The disease can be either acute or chronic and can affect any number of feet, but is more commonly found in the front feet. The term Founder is used to when the disease has progressed enough that it has caused a physical change to the hoof, such as rotation or sinking of the pedal bone,

### What does Laminitis Look Like?

Laminitis appears as areas of inflammation (interrupted blood flow) in the laminae. This causes the laminae tissue to die and decreases the amount of tissue holding the coffin bone in place. After enough laminae tissue has died, the coffin bone will begin to move. At this point, the horse has foundered.



**Figure 1:** Comparison of a normal hoof, a laminitic hoof, and a foundered hoof. Photo courtesy of Clemson Cooperative Extension.

### What Causes Laminitis?

- Overeating, especially high energy/high carbohydrate concentrated feeds
- Overworking on hard surfaces, such as concrete
- Drinking large amounts of cold water after extensive exercise
- Post parturition uterine infections
- Eating large amounts of lush pastures, spring and fall growth, especially after a horse has been eating hay for long periods of time.

### How will Laminitis Impact my Horse?

- Laminitis has a sudden onset and horses will appear to shift weight off laminitic hooves or stand with head down and back arched if all four feet are laminitic. If the coffin bone moves, it will rotate down or sink, potentially breaking through the bottom of the hoof.



**Figure 2:** Characteristic stance of horse with laminitis in front feet.

Photo courtesy of Dr. Tania Cubitt.

### How can I Prevent Laminitis?

- Monitor horses BCS, keeping horses from becoming overweight (BCS >6).
- Avoid accidental overfeeding and secure feed rooms and grain storage bins.
- Minimize grazing on lush pasture. Limit graze or feed horses hay before turning out on winter or summer annuals or young growth.
- Avoid exercise or running on hard surfaces.
- Keep hooves maintained.
- Know the symptoms! Report any weight shifting, refusals to move, or anything abnormal to your vet.



# Behavioral Issues

Some horses engage in 'stereotypies' which can cause problems around the barn. These repetitive behaviors can cause structural damage, issues in the herd, or can signify health issues.

## Cribbing

Biting on wooden objects and sucking in. This behavior can elicit 'feel good' hormones which causes its addictive nature.



## Wood Chewing

Although this is a natural behavior of horses, it can cause structural damage. Therefore these horses should be monitored and given ample time to graze in a pasture.

## Weaving

This behavior is when a horse shifts their weight from one side to the other while swinging their head. Horses normally start this behavior while anticipating something (turn out, dinner, etc).

## Stall Walking

Pacing a box pattern in a stall or paddock.

Stereotypic behaviors can be caused by limited turn out time, limited socialization with other horses, or insufficient grazing/forage opportunities. Contact your local extension agent for information on how to manage a stereotypic horse.



## Equine Vital Signs

1. Temperature- 99-101.5 F	5. Heart Rate- 24-48 BPM
2. Digital Pulse- Difficult to find	6. Gut Sounds- Always present
3. Hydration- 1 second	7. Respiration Rate- 10-24 Breaths per minute
4. Mucous Membrane- Pink and Moist	



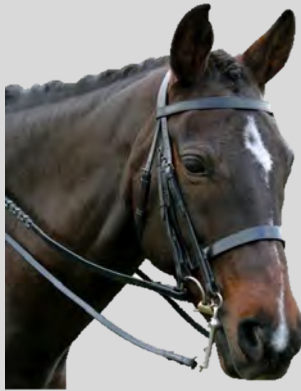
Photo Credit: Andy Cant



## Basics of Bits

### Style

Bits are either Snaffle styles or Leverages styles. The reins attach directly to the mouth piece on a snaffle but on a leverage (curb) bit the reins attach to a shank that extends below the mouth.



### Pressure

Bits give signals to a horse via pressure. Depending on the style of the bit pressure can be applied to the tongue, bars, cheeks, lips, palate, nose curb area, and poll.



### Material

Stainless steel is often used to avoid rusting. Sweet Iron is used because it is palatable to horses. Copper is included in some mouthpieces in small amounts due to its nature in causing the horse to salivate. Saliva allows the bit to slide or rotate more easily.

### Size

Standard Bits are 5 inches between the cheek pieces, draft horses may need a larger bit while ponies may need something smaller.



### Shanks

Shanks can cause a variety of action depending on shank length and style. Some shanks are straight, some like a C and some like an S. The shorter the shank the less leverage and the faster acting.

### Severity

Bits vary in severity based on the diameter of the mouthpiece. The thinner the wire, the more severe it is generally considered. Twists or other textures can contribute to severity in some cases.

## Trail Riding Safety



### Tell Someone

Always tell a few people about your planned trail ride. Make sure they know when you plan to leave, where you are going, what trails you intend to take, and when to expect your return. Keep them updated on when you are heading home or make it back safely.



### Watch the Weather

It is important to be aware of weather conditions. Wear a hat and sunscreen if it going to be sunny, or cold/rain weather gear if needed.



### Dismount if Needed

If your horse is spooked or experiencing something for the first time (crossing a bridge or stream) don't be afraid to dismount and handle things from the ground. Situations can turn bad quickly if a rider is thrown.

**Most Importantly, Have Fun!**

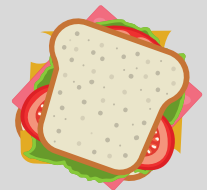


### Map it Out

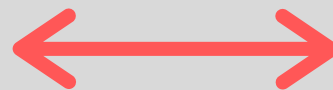
Most public trail riding locations have a physical map you can view to plan your trail ride beforehand. Private land owners can use online applications like google maps satellite image to plan their ride. Stay on the trails and do not vary too far from your planned route in case something happens.



### Bring Water & Snacks



Always bring fresh water for riders when trail riding, snacks and water for the horses are helpful on rides lasting longer than an hour.



### Keep your Distance

Keep at least one horse length in between you and other riders in the group. Switch horses from the front to the back often to teach horses good trail riding manners. If your horses have never been around other group riders, give them more distance in between.





# Horse Transportation

## Intrastate

When transporting horses within Florida, an official negative Equine Infectious Anemia test (EIA or Coggins test) completed within 12 months of blood being drawn must accompany the animal. Foals under 6 months of age are exempt of the test requirements if accompanied by their dam with an official negative EIA test.

### **Change of Ownership:**

An original or lab-certified copy of an official, negative EIA test completed within 12 months of the blood sample being drawn must be transferred from the current owner to the new owner.

### **Assembly:**

Horses must have a negative EIA test result at private or public assemblies. Boarding stable or pasture owner, event sponsor or the person in charge are responsible for making sure EIA test requirements are met and records must be maintained for 2 years including the name of the horse, name of the horse's owner or owner's representative, EIA test date (date blood sample was submitted), and laboratory accession number of the EIA test report.

### **Breeding Stock:**

Stallions and mares need a report of negative EIA test within 12 months prior to breeding.

## Interstate

Horses being imported to Florida must meet the same EIA requirements as intrastate transportation, but vehicle drivers or whoever is in charge of the animals must also have an official Certificate of Veterinary Inspection in their possession including the following information:

name & address of consignor; name & address of consignee; point of origin & premises identification number (if assigned in the state of origin); point of destination; date of examination; number of animals examined; sex, age, name, and breed of each identified animal; establishment or premises location where animal was examined; body temperature at examination; color & markings of each animal; prior permission number (if required)

### **Event Extension/Passport Documents:**

Equine Event Extension or Equine Interstate Passport documents can be used when moving to equine events in participating states. The Equine Event Extension document must be accompanied by an EIA test & Official Certificate of Veterinary Inspection. Equine Interstate Passport Card is a standalone document that is valid up to 6 months from the date of issuance of a certificate of veterinary inspection as long as the EIA test is valid.

## Basics of Coat Colors

Horse coat colors are a result of a complicated mix of genetics, each one playing a particular role. Here are the basics to get you thinking about your horse's coat and what created it.



### Pigments



Coat genetics start with 2 pigments, either red or black. Black color is the dominant gene in horses while red is the recessive.



### Base Color



There are two base colors: Red & Black. You can tell a horse's base color by looking at the points, ears, mane, tail and legs, or if the body is solid black. A red base horse will not have any black on the points.

### Red Base Colors:

Sorrel, Chestnut, Palomino, Cremello, Red Roan, and Red Dun.

### Black Base Colors:

Black, Bay, Buckskin, Grullo, Dun, blue and bay roan, perlino, and brown.

Coat colors are produced by many genetic factors, knowing the basics is important for horse owners and particularly important for breeders.

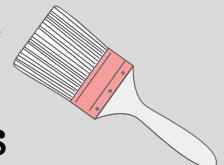


### White Markings

White markings on the body or legs of the horse indicate a lack of pigment. We see a lack of pigment in horses with white socks, or on appaloosa's, paints, etc. The gene coding for absence of pigment overrides or "modifies" the genes coding for the red or black pigment. Genes coding for white markings are often called modifiers, as they change the appearance of the base coat by removing pigment.



### Dilutions



Dilutions are sort of like a 'wash' over the horse's base color. The genes for dilutions and modifiers are what gives us the incredible amount of variety in horse coats.

The five dilutions are: Cream, Champagne, Dun, Pearl, and Silver. Multiple copies of these can cause compounding color effects, like a double dilution of cream produces cremellos and perlinos, while a single dilution of cream creates palominos, buckskins, and smoky blacks.



## Inside the Horse's Mouth

Equine dentistry is a vital part of horse health and maintenance, particularly for the aging horse. Horses should have a full dental exam before they reach 2 1/2 years old, and should be regularly examined after that.

### Not So Permanent

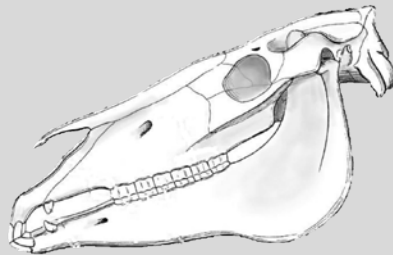
Horses will have their full set of "permanent" teeth by age 5, baby teeth start to be replaced with adult teeth around the age of 2. These permanent teeth are approximately 4 inches long and are meant to last the horses entire life.

The adult teeth are made up of 3 columns, only one of which is enamel, the other two are not as hard which allows the teeth to be worn down over time. The teeth are continuously erupting or being pushed up to what we visually see, usually at a rate of 3-4 mm per year.



### Full Mouth

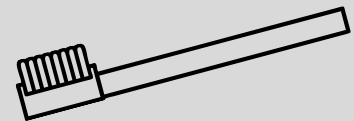
A full set of teeth is generally 24 baby teeth, which is replaced by 36-44 adult teeth. The teeth erupt at certain ages and wear at a consistent rate, this is one reason aging horses by their teeth can be relatively accurate.



### Round & Round We Go

Horses chew in an elliptical fashion. They drop their lower jaw, move it left or right and up to contact the upper teeth, then return the lower jaw to the center. This allows the teeth to grind the food across them, breaking it into smaller pieces which aides digestion.

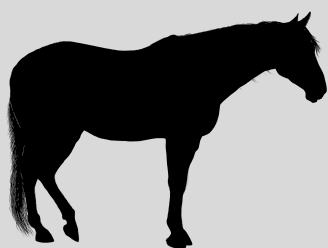
### Prevention is Key



Avoid dental issues by maintaining a consistent dental visit (every 8-12 months in horses 6 years or older). Your equine dentist can catch early signs of periodontal disease, sharp points, imbalances, and more which can lead to teeth issues, digestive issues, and potentially health issues. A healthy mouth can lead to a long and happy life for our horses.

# Debunking Colic

15% of horse deaths are attributable to colic, this means a bout of colic can be a scary time for a horse owner. Here are some myths debunked so you can better care for a colicing horse.



## Walk it Out?

Contrary to popular belief, a horse experiencing colic does not need to keep moving. The only reason a colicing horse should be hand-walked is if it is thrashing while laying down. A horse that stands quietly or lays down easy is welcome to rest, after all they are in pain.

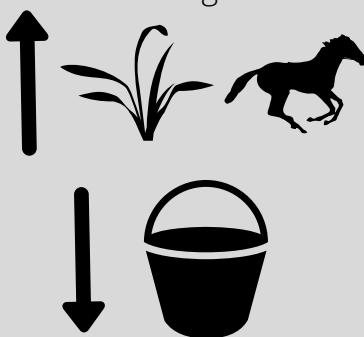
## Get Things Moving

A simple gas colic or spasmodic colic could potentially be alleviated by vigorously trotting the horse on a longe line for 15 minutes.

Trailer rides have been known to enhance bowel movements and can be beneficial to solve colic.

## Prevention is Key

Increase forage and daily exercise, decrease grains.



## To Dose or Not to Dose?

Bute or Banamine, or other NSAIDS, should not be given to the horse until instructed to do so by a veterinarian.

Medications may not be absorbed if there is poor gut motility and intravenous drugs may need to be administered.

Intravenous fluids may be used to over-hydrate a horse to help relieve a mild impaction or displacement.

## Get the Vet Involved!

Even in a mild case of colic it is best to give your vet a call just in case. Be prepared to trailer horse to a referral hospital if necessary.



# Horse Herald

## February 2020

## There's a Frog in my Foot!

Horse hooves have a unique structure, called a frog, that performs a multitude of functions and is essential for overall horse health and performance. Learn about the frog and frog care in this edition of the Horse Herald.



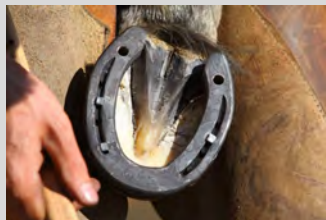
### The Frog's Function

The frog (the soft triangle structure on the bottom of a horse's hoof) performs many functions, here are just a few.



#### Shock Absorption

When the foot touches the ground the elastic, blood-filled frog, helps dissipate some of the force away from the bones and joints.



#### Blood Flow

The frog plays a major role in pushing blood up out of the hoof. The force applied to the frog when a horse steps pushed blood up the leg, when the horse picks up the foot blood comes down the leg.

#### Protection

The frog protects the digital cushion, deep digital tendon, navicular bone, and the bursa, all critical structures to a horse's soundness.

#### Coordination/Traction

The frog plays a vital role in a horse's ability to be aware of where his feet are and the conditions of the ground through the use of sensory nerve endings. The frog also helps horses keep traction when allowed to contact the ground.

### Preserving the Frog's Health

Minimize trimming of the frog. Do not focus on it appearing 'neat & tidy', instead focus on pockets that could retain moisture and lead to thrush, remove loose edges to prevent tearing, and clean the commissures (between the frog and bars).

A healthy foot requires proper housing (wet conditions for extended periods lead to soft frogs, thrush, or other issues), proper diet & exercise, and proper hoof care (trimming and cleaning).

# Trail Riders Can Play a Part in Invasive Species Control



Do you ride the trails often? Particularly on public lands like state/national forests, public parks or others? You can help land managers control invasive species by simply downloading an app on your phone and reporting invasive species sightings!

## What's Up with Invasives?

Invasive species can be animals, insects, or plants. These species cause damage to native populations of animals and plants by competing for resources or preying on natives. Often invasive species have no natural predators and can reproduce/grow faster than native populations. This style of growth means invasive species can easily take over an area which negatively impacts the entire ecosystem.

## IveGot1 App

Smartphone users can download an app called IveGot1 to help land managers keep track of invasive species. Once an EDDMaps account is created, users can use the app to record sightings of invasive species, whether flora or fauna. Trail riders are the perfect opportunity to cover a large amount of ground and keep an eye out for invasives, especially plants.

You don't have to be able to identify plants to be able to record invasive species. Plants can be documented as unknown, compared to photos available on the app, or can be identified using other plant identifier apps like iNaturalist's Seek app, or Pl@ntNet app.

**Download IveGot1 today and start your role as a Florida Ecosystem Protector!**



# Aging a Horse with Their Teeth

Aging horses by using their teeth is a common practice, particularly with horses whose past is not known, during a pre-purchase exam, or when rescuing animals. Aging by the teeth is not as accurate as some might think, but generally a range is able to be determined. Younger horses (less than 5-6 years old) can often be aged based on what teeth have erupted from the gums, older horses are aged based on these factors:

## Shape of the Incisors

For horses less than 11, all of the incisors have a rounded oval shape. As the horse ages the shape shifts to triangular and then rectangular. There is not exact time frame as when this shift occurs, it will be related to diet and eating habits.



## Cups, Stars, and Spots

Younger horses (less than 8) will have a 'cup' in their lower incisor teeth, this cup wears down and begins to disappear over time leaving an enamel spot in its place.

The dental star corresponds with the pulp cavity and appears at 8 years of age in the first incisor. The dental star is first visible as a line and will change to a large, round spot as the surface is worn away over time. The dental star is still apparent after the cup and enamel spot has been worn away.

## Grooves

Galvayne's groove is located on the lateral surface of the upper third incisor. This groove first appears near the gumline at 10 years of age, extends halfway down the tooth at 15 and all the way at 20. The groove begins to disappear after 20 years, is halfway gone at 25 and completely gone at 30.

Tooth Eruption			
	Temporary	Permanent	
Incisors	$d_1 = 6 \text{ days}$	$I_1 = 2.5\text{-}3 \text{ years}$	
	$d_2 = 6 \text{ weeks}$	$I_2 = 3.5\text{-}4 \text{ years}$	
	$d_3 = 6 \text{ months}$	$I_3 = 4.5\text{-}5 \text{ years}$	
Canine		4-5 years	
Wear of Permanent Teeth			
	$I_1$	$I_2$	$I_3$
Smooth (cups gone)	6 years	7 years	8 years
Stars	8 years	9 years	10 years
Round	9 years	10 years	11 years
Triangular	16 yrs	17 yrs	17-18 yrs
Rectangular	18-20+ yrs		

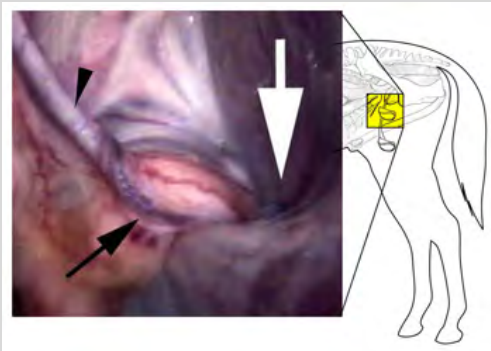


# Cryptorchidism in Stallions

A cryptorchid stallion is a male horse that only had one testicle descend out the body cavity. The other testicle is still lodged inside the body and therefore normal castration methods generally cannot be performed. Cryptorchids can be an issue in the barn as they will still exhibit stallion like behaviors, can potentially breed, and can be costly to correct.

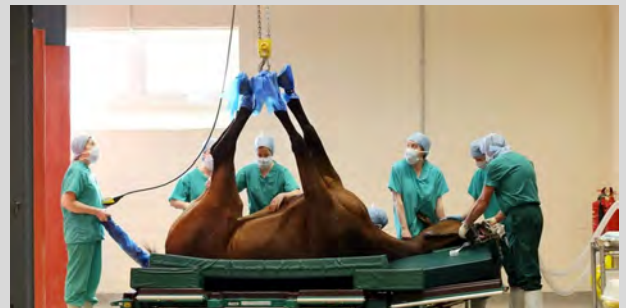
## Unilateral versus Bilateral

In rare cases both testicles do not descend into the scrotum, these horses are generally sterile. The retained testicle can be anywhere in the abdomen or stuck in the inguinal canal, the normal passage route of the testes.



## Prevalance

Retention of the right or left testicle are almost equal, however the left testes are often found in the abdomen while right testes are often in the inguinal canal. All breeds of horses may exhibit this condition but there is a higher frequency in Quarter Horses, Saddlebreds, Percherons, and ponies.



## Causes

No singular cause has been established for cryptorchidism. Likely a combination of genetic, hormonal, and mechanical factors play a role in cryptorchids. The condition is considered heritable (passed on to offspring) and therefore cryptorchids should be gelded and not allowed to breed.





# Disaster Prep Do's & Dont's

## Develop an all-hazards plan



In Florida we are generally focused on preparing for hurricanes, but a disaster plan for your barn should include all possible emergencies. This includes hurricanes, fires, tornadoes, flooding, power outages, wildlife attacks, or other situations that you may find yourself in. The best all-hazards plan is supplies & procedures that can be applied to a multitude of situations.

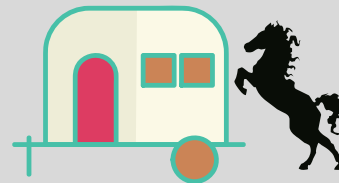


## Update plan regularly

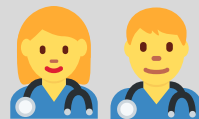
Too often a disaster plan is created, then left on the shelf and forgotten about. Plans should be updated regularly, duties assigned to farm staff, and new personnel should be updated on the plans aspects. Rehearsing the plan is always beneficial, this way each member knows their roles and where the appropriate supplies/tools for the job are.

Keep evacuation supplies updated and in stock. This could include medications (do not let them expire), leads, halters, blankets, feed, etc.

## Every horse needs a loading refresher



Even the best horses can be difficult to load in stressful situations, compounded with your stress and you've got a bad situation on your hands. Horses should be experienced loading in different trailers, under different conditions (rain, sun, light, dark, etc.), in different locations, and even better if they can load without feed and under stress (have people running around the trailer, making noise, etc.)



## Stay up to date on routine veterinary care

Nothing adds more stress than not being prepared. Be sure horses are up to date on vaccinations & coggins/health certificates. Always keep necessary medicines on hand, extra if possible in case of evacuation

## Discipline Spotlight: Show Jumping

Show jumping is a discipline both horse owners and the general public have seen as it is prominent in large events like the Olympics. Were you aware of these jumping facts?

Jumper classes are scored objectively, based entirely on a numerical score determined only by whether the horse attempts the obstacle, clears it, and finishes the course in the allotted time. Jumper courses tend to be much more complex and technical than hunter courses because riders and horses are not being judged on style. Courses often are colorful and at times, quite creatively designed.



Did you know show jumping was not an event until 1869? There was no particular need to jump horses until England passed a bill requiring fences between separate properties. Now, fox hunters had to be on horses that could clear fences between property lines and show jumping was born. Show jumping first appeared in the Olympics in 1912.

The official Fédération Equestre Internationale record for high jump is 2.47 m (8 ft 1.25 in) by Huaso ex-Faithful, ridden by Capt. Alberto Larraguibel Morales (Chile) at Viña del Mar, Santiago, Chile on 5 February 1949.





## Rain Rot

A bacterial organism known as *dermatophilus congolensis*, which thrives in high moisture conditions, causes rain rot. Interestingly, while it is classified as a bacterium, it acts like a fungus in many ways. Ultimately, rain rot presents itself as painful scabs that form most often over the horse's topline. When the scabs are pulled away, they tend to take clumps of hair with them, leaving bald patches over the horse's back, hips, face, and other areas.

### Dealing with Rain Rot

Curing rain rot can often be as simple as bathing the horse with an antimicrobial shampoo, cleaning or replacing grooming tools, and keeping the horse dry and separated from other horses with active cases when possible. Topical antimicrobial products may be useful and in very severe cases of rain rot, the horse may require antibiotic injections.



### Preventing Rain Rot



Rain rot generally occurs when the skin is soft (hence, high moisture conditions) or on horses that have compromised immune systems (young/old/etc). This bacteria is naturally found in the soil, but there are a few ways to preventing rain rot.

- Keep horses dry. If poor weather is expected for a few days or stalls are not available, make sure there is a run in shelter of some type in the pasture.
- Keep horses groomed. The more soil the horse has on its skin the more likely the bacteria will be present.
- Keep grooming supplies cleaned and disinfected. This prevents passing bacteria from horse to horse or re-infecting a horse.



# Constructing the Perfect Arena

Every horse rider needs an arena, whether to run barrels, jump fences, school horses, or just to exercise horses. It's important that the arena is built right for the job, here are a few things to think about when building or renovating your arena.

## What is the Use?

All aspects of the arena will depend on what it will be used for. A proper plan takes into account the necessary size, footing, fencing style, entrances/exits, etc. Include future planning into your arena construction, if you hope to one day board horses, build an arena to suit, or if it will always be a private arena, build accordingly.



## Location, Location, Location

Put a lot of thought into the location of the arena. It should be in a spot that large equipment can enter in order to build the arena, and afterwards should be easily accessible to riders, tractors, trucks, trailers, etc. You never know how you might utilize the arena in the future. Prepare ahead of time.



## What Aspects Do You Need?

Make a list of things you absolutely need in the arena, this could include fencing style, footing depth & material, lighting, dust control, etc. Make sure you have this list complete in order to get accurate pricing estimates on construction. Building the arena the right way the first time will lead to years of enjoyment and a high quality schooling space.



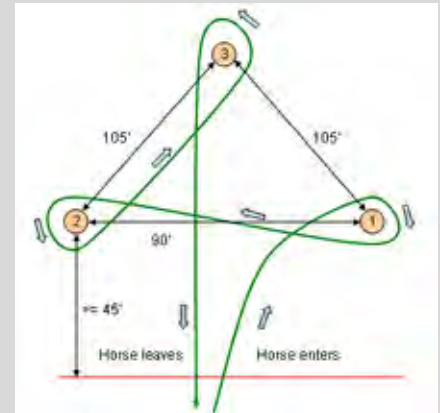


## Discipline Spotlight: Barrel Racing

Barrel racing refers to a western riding event in which horse and rider must turn 3 barrels in a cloverleaf pattern as fast as they can. Competitors are judged solely on speed.

### Let the Games Begin

Barrel racing generally refers to the cloverleaf pattern, but riding clubs generally participate in 4 events. The poles, in which 6 poles are lined up and horse & rider must weave through them, the texas barrel weave in which competitors weave through 3 barrels, and the arena race where 1 barrel is placed at the end and riders must run down, turn the barrel, and run back, as well as the cloverleaf pattern.



### Dominated by Women



This a rodeo sport that is dominated by women at the collegiate and professional levels. The Women's Professional Rodeo Association (WPRA) was founded in 1948 and barrel racing continues to remain the most popular event. The National Barrel Horse Association (NBHA) is also dominated by women.

### Fast as Lightning

In 2017, Hailey Kinsel broke the arena record at the Women's National Finals Rodeo with an astounding 13.11 second run.



## Bedding Considerations

### Safe For Horses



Not all bedding material is created equal. Some hardwoods like black walnut or locust are toxic to horses, cedar as well can cause allergic reactions in some horses. Bedding material should be free of foreign materials like metal or glass.

### Absorbent



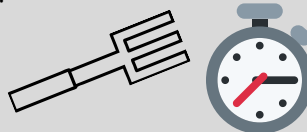
One of the main functions of bedding material is to absorb moisture from urine and manure. This helps reduce odor and helps prevent hoof issues. Increased absorbency levels in bedding means less bedding needs to be used and results in a cost savings for the barn.

### Compostable



Bedding material should be easy to compost. Some materials can take years to break down, making composting a difficult process, especially for barns that produce a lot of bedding waste. Be mindful of how bedding waste is handled and take in this consideration when choosing.

### Easy to Store & Chore Efficient



How will the bedding be delivered? Baled, bagged, or loose? If you plan to have on hand any large quantity, make sure that storage won't be an issue or degrade the material. Also, make sure that the material is chore efficient. If it requires too much time and effort to clean stalls it may not be a beneficial bedding.



# Rodent Control in the Feed Room

Although pests can be present in the feed room year round, we seem to see a rise during winter months as rodents seek out food and a warm place to bed.

Here are a few options to help control your resident rodent population.



## Remove Food Sources

Always keep feed in secured bins, metal cans, old freezers, anything but loose on the floor or loose in a wheelbarrow. This is essentially a rodent buffet, always make sure food is sealed away. Sweep up the feed room floors often to dispose of dropped feed that may attract rodents.



## On-Going Pest Control

Pest control should be a whole barn approach. Keeping rodents out of the feed room is important, but keeping them out of the barn entirely can reduce a lot of issues with disease transfer, destruction of the barn, and filth. Barn cats, rodenticides, or traps will help maintain the population in the barn.



## Secure the Feed Room

A mouse needs only a quarter inch hole to enter a room, and a small rat can fit through a hole the size of a quarter. Even if you think you have no entry points into the feed room, you likely do. Make sure to fill holes and secure any windows/doors. Metal flashing can be installed along the bottom half of feed room walls, this helps prevent rodents from being able to chew holes into wooden walls to get to feed.



## Tidy as a...Mouse?

A bit ironic, but hopefully it will help you remember that tidying up is one of the best ways to deter rodents. Particularly in the winter, rodents are looking for a warm place to bed and extra feed laying around.

Keep tack, saddle blankets and pad, helmets, etc. picked up and put in their rightful spot to remove bedding sites. Shavings and hay should be properly stored and extra feed sealed away.