

## Spring Skin Irritations: Pastern Dermatitis, Rain Rot, Ringworm

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As I write this letter, Lexington is being hit once again with a round of severe weather. One more reminder of just how wet the spring has been here in Central Kentucky. In April alone, it rained 9 inches above average rainfall for that month, raining for 20 out of 30 days. If you don't live in the bluegrass, I am sure that you've had your fair share of rain lately too. Don't get me wrong, I'm not complaining. We need the rain. Our farms need the rain. But enough is enough, we need a break! Our horses need a break! With all the excess water and moisture outdoors, our equine friends are at an increased risk for skin irritations like dew poisoning and rain rot. I hate to even think about what all this excess water means for the mosquito and *Culicoides* (no-see-ums) populations this summer.

**Pastern Dermatitis (PD)** - The term 'pastern dermatitis' describes a skin irritation pattern, usually involving the back of the pastern and heel bulb, which can vary greatly in cause and appearance, from smaller crusty scabs/mats of hair on the heels to larger painful oozing scabs, usually affecting white-haired limbs more than others. Lameness may or may not be present. In fact, the term 'Pastern Dermatitis' is synonymous with other terms like 'Mud Fever', 'Dew Poisoning', 'Cracked Heel', and 'Greasy Heel', to name a few. This great diversity in terminology associated with PD is likely the result of the great diversity in the clinical appearance of PD. In all actuality, all of these terms describe different clinical stages along the PD continuum. The long list of causes of PD includes Dermatophilosis, Dermatophytosis (Ringworm), bacterial infection (primary or secondary), contact dermatitis, mange, photosensitization, and vasculitis. *Dermatophilus*, the most common PD causing organism, is an actinomycete bacteria which is a normal commensal inhabitant of the equine skin. This organism thrives in moist conditions, and when allowed by some defect in the skin (i.e. cut, scrape, puncture, bug bite, etc...), can gain entrance into the dermis and begin the chain of events which eventually result in infection ... inflammation ... and pastern dermatitis. Whether it be in the form of a muddy paddock, dew on the grass in the morning (Dew Poisoning), or a violent spring downpour (as you will soon find out), excessive moisture is a major risk factor for the development of Dermatophilosis. Maintaining a dry hygienic environment for your horse will help prevent PD before it starts. As all of you know, once PD starts it can be quite difficult to treat and control. If suspected, consult with your veterinarian about a diagnosis and treatment plan, which will likely include some combination of clipping the hair on or around any lesions, the use of a medicated shampoo or scrub (Chlorhexidine or Betadine) to soften those scabs and disinfect, mechanical debridement (pick off those nasty scabs!), and drying out. It is important not to bandage the leg in these horses. Remember, we want to dry out those lesions! Local treatment with antimicrobial preparations is helpful in dealing with secondary bacterial infections. Ask your veterinarian

about Hagyard Pharmacy products like Special Heel Ointment or Dew Poisoning Ointment, and whether or not they would be appropriate for your horse.

**Rain Rot (RR)** - Rain Rot, or Rain Scald, is also caused by the *Dermatophilus* bacteria. RR simply describes skin disease caused by *Dermatophilus* on parts of the body other than the lower limb and pastern region. Unfortunately, we are all too familiar with the RR lesions which appear along the neck and back of a horse, usually following some kind of precipitation in the days prior. Clinical signs vary from small non-painful matted tufts of hair to large exudative crusty-like scabs. Treatment includes the use of a medicated shampoo (Chlorhexidine or Betadine), removal of scabs/tufts of affected hair follicles, and drying out of the lesions and hair coat. Some cases may require more aggressive therapy, so it is important to work closely with your veterinarian to treat cases of RR (or PD) before they get out of control. Prevention includes maintaining a dry hygienic environment and avoidance of wet/moist conditions. Care should be taken to avoid situations in which we trap moisture in our horse's skin or hair, like blanketing a horse during a rainstorm. Affected horses are the primary source of infection, so care should be taken to avoid exposure in unaffected individuals. Dispose of scabs from affected animals appropriately, and disinfect tack & grooming supplies as well. Once infection has begun, it is important to work closely with your veterinarian and treat this condition early, before it gets out of control. Trust me, you'll be glad you did!

**Ringworm (RW)** - Ringworm, also known as dermatophytosis, is a fungal skin infection caused by multiple species of dermatophyte. RW can cause classic lesions of circular alopecia (hair loss) with variable amounts of scaling or crusting or can cause a more generalized condition with larger areas of hair loss. The latter condition usually occurs in immunocompromised or malnourished horses, which are more susceptible to RW. RW is generally non-itchy and can occur anywhere on the body, but occurs most commonly in the axillary/girth area, neck, head, & rump. Increased moisture in a horse's environment can also be a risk factor for the development of RW. Although the classic RW lesions (circular patches of hair loss) are very recognizable, many other skin diseases can look very much like dermatophytosis. Therefore, it is very important that any horse with suspected RW be examined by your veterinarian to confirm a diagnosis and initiate a treatment plan, which may include the use of a medicated shampoo (antibacterial and antifungal) as well as topical antifungal therapy. Severe cases may require a more aggressive approach. After a diagnosis of RW has been made, all horses and their tack & grooming supplies should be considered contagious to other horses and handled appropriately. Disinfection of tack and grooming supplies, which should not be shared between affected and unaffected horses, can help prevent the spread of RW from animal to animal. RW is considered a zoonotic disease and although very rare, transmission from horse to human is possible. So please, please use good hygiene when handling horses with RW. Wear gloves, wash your hands, and be smart!

***Culicoides Hypersensitivity*** - Insects such as *Culicoides* (no-see-ums), mosquitos, and other species of flies use standing water as breeding grounds. *Culicoides* hypersensitivity (Queensland Itch) causes a classic itchy dermatitis on the belly of horses. Preventative measures to protect your horse against *Culicoides* midges as well as mosquitos include keeping your horse away from standing water, using ceiling/stall fans, using an appropriate insect repellent (permethrin repellent), donning a fly sheet and stabling your horse at sunrise and sunset, which are prime feeding hours for *Culicoides* midges. Obviously there are many other strategies and tips for insect control, so use the measures that are appropriate for your situation. If your horse does come down with the Queensland Itch, contact your veterinarian to discuss a therapeutic and preventative plan. Hyposensitization ('allergy shots') is an option for horses with *Culicoides* hypersensitivity, but results are variable.

***Sunburn*** - Prevention is the name of the game when it comes to sunburn. The white haired portions of our horse's skin are at an increased risk for developing sunburn, so be sure to protect those individuals with some sunblock on those sensitive areas. Personally, I like to use an aloe-containing product with SPF 40. Either a cream or a spray should work just fine.

Remember to work closely with your veterinarian for a spring & summer free from any equine skin irritations!

Josh