

## Not so Fun in the Sun: Equine Summer Skin Diseases

Summer sun and humidity can increase the risk of three common skin conditions; know how to prevent them and identify the warning signs.

By T.A. Banner DVM

It's that time of year again when all the flies, mosquitoes and gnats decide to turn your quiet evenings into a swatfest and send you running for the house. Unfortunately for your horse, living in the great outdoors can mean dealing with environmental and insect issues 24 hours a day in the humid Southeastern climate. Horses are at increased risk for skin conditions in the summer season. Probably the biggest take home message I can give you is to start the appropriate treatment as recommended by your veterinarian as soon as a skin condition starts. Don't wait until the condition has worsened to the point of hair loss, skin lesions and your horse has knocked over half the fence posts in the paddock trying to scratch. Photosensitization, rain rot (dermatophilosis), and equine insect hypersensitivity are three common skin diseases. It is important to know the clinical signs and causes of each.

### Photosensitization

Increasing day length brings increasing time under the hot sun.

Photosensitization is a common problem in horses with pink or non-pigmented skin that is overexposed to sunlight. The most common areas affected are the face, nose and ears. In the summer, the intense rays of the sun will cause the skin to burn and cause peeling of the outer layers of epidermis. The skin is characterized by redness, localized swelling, sensitivity to the touch and could have weeping of serum.

Photosensitization is believed to be caused by phylloerythrin, which is a normal breakdown product of chlorophyll in plants. The horse's liver is responsible for excreting phylloerythrin and any other plant chemicals that may ultimately damage the skin. Certain plants, such as ragwort, St. John's wort and buckwheat, contain chemicals that can damage the horse's liver. This will cause the skin to be more susceptible to ultraviolet rays from the sun. Sun Burned Horse, By Jean Abernethy

Some medications, such as tetracyclines, can make horses photosensitive. A pink-skinned horse in strong sun is likely to suffer from sunburn; but if that horse were being treated with photosensitizing medications, it could suffer from a more severe sunburn. There is a correlation between sunburn and liver damage with some systemic diseases involving the liver making horses more photosensitive. The best solution is to limit the skin's exposure to direct sunlight but sometimes that is not possible. The use of sun protection products is often necessary to keep the harmful rays from

burning sensitive areas. Many of today's grooming products such as shampoos, fly sprays and coat conditioners may contain sunscreens, and the protection provided by a sun block such as zinc oxide is helpful. One of the problems is keeping it on the horse because grazing and horseplay can wipe the product from horse's face. The colored sun blocks may aid in determining when it is time to reapply the product when viewing from a distance.

### Dermatophilosis

Dermatophilosis, "rain rot," "rain scald" or "streptothricosis" is a skin disease usually noted in prolonged wet conditions where high temperature and high humidity are present. Skin lesions usually appear as crust-like scabs or small 1/4 inch matted tufts of hair over the rump and back, but can affect much of the body. When rain rot appears on the lower limbs it is most commonly referred to as "dew poisoning."

The organism, *dermatophilus congolensis*, which causes rain rot, is not a fungus. It is an actinomycete which has the characteristics of both bacteria and fungi. It enters the follicle of the hair shaft and initially causes small lumps on the skin or hair when running your hand over your horse's coat. There are usually dozens of tiny scabs that contain embedded hair and can be pulled or rubbed off. Underneath the scabs, the skin is usually pink with yellowish pus at the skin surface. The organism damages the root and causes the entire hair shaft to lift out in small clumps leaving the area hairless.

Dermatophilosis, Rain Rot, Rain Scald in the horse.

Dermatophilosis, also known as rain rot, rain scald or streptothricosis is common in the Southeast due to increased humidity and high temperatures combined with rainfall. Photo courtesy of T.A. Banner, DVM.

The affected areas are often quite sensitive and saddles and other tack must be carefully used. Since the area becomes hairless then sun blocking products should be used to prevent sunburn. The organism can be spread through sharing of equipment between horses. This includes saddle pads, blankets, leg wraps, brushes, halters, etc. It is extremely difficult to prevent the spread of rain rot, since a horse can pass it to another horse by simply rubbing its skin on any object that the other horse may touch.

The best prevention for rain rot is to use a disinfectant on any equipment shared between horses after each use. *Dermatophilus congolensis* grows better with a lack of oxygen. Therefore, if your horse has a long, thick hair coat, it will be necessary to body clip the horse and remove any scabs that

hold the organism to the horse's skin. It is not a good idea to use ointments on rain rot, because they hold moisture to the skin (and moisture needs to be removed for the condition to cease). The best treatment is to wash the horse with antimicrobial and antibacterial shampoos and rinses.

Dermatophilosis, Rain Rot, Rain Scald in the horse.

The horse's back, rump, fetlock and the front of the cannon bone are the areas most commonly affected by dermatophilosis. Photo by Jill Haight.

### Culicoides Insect Hypersensitivity

Culicoides Insect Hypersensitivity (CIH) is known by many different names throughout the world (Sweet Itch, summer eczema, Summer Seasonal Recurrent Dermatitis (SSRD), Queensland Itch in Australia, Kasen in Japan and elsewhere as dhobie itch), the symptoms are the same.

Culicoides Insect Hypersensitivity is a condition that affects the quality of life of thousands of horses. CIH is an allergic skin disease affecting susceptible horses and ponies that become hypersensitive to the bites of the insect of the genus *Culicoides*. The tiny insects are commonly known as "biting midges," "punkies," or "no-see-ums" and are primarily active between March and October, during the early morning and the evening. Some sources report 120 or even 800 different *Culicoides* species. *Culicoides* are very small and can pass through conventional mosquito netting. They breed in aquatic habitats, decaying vegetation, manure or water troughs.

They feed on the horse at specific sites, usually around the tail head, under the mane, and underneath the horse's abdomen. The allergic reaction, caused by the saliva, develops at the site of feeding and the majority of affected horses show skin lesions affecting the mane, tail, face and ventral midline. The problem is characterized by intense itching (pruritus), which results in rubbing and considerable self-trauma, sometimes with secondary infection. Affected animals are itchy, causing intense rubbing and scratching on any available surface. Prolonged rubbing results in crusting, scaling, skin thickening, hair loss and damage to the skin. Mane and tail hairs may be broken and irregular due to repeated trauma.

The symptoms are yellowish spots approx. 50 - 150 millimeters in size, in many cases scratched open by the animals until bleeding occurs. Crusts are formed, the mane and tail hair being scratched and/or bitten away. In the crest, hardened spots can appear and burst open which give it a saw-like appearance. In the face, the hair sometimes is scratched away and

the black skin underneath becomes visible.

CIH is not contagious but other, healthy animals in the herd might be affected as well because a horse with CIH will scratch harder into the withers of a healthy animal due to his own strong itch sensation and will in this way do some damage to the other's skin and hair. History and clinical cases among related horses give significant evidence of a hereditary factor. It usually affects younger horses but horses have been known to begin clinical signs in their 20's.

Control of the condition is often difficult, with the primary efforts directed at preventing affected horses and ponies from being bitten, and symptomatic treatment to control the irritating effects of the allergy. Your veterinarian may also be able to do a blood test to evaluate for CIH as well as other insect and environmental allergies.

As you can see there are many potential skin diseases in the horse and several more that were not discussed in this article. Living in a Southern tropical climate exposes our horses to continuous challenges from insects and environmental concerns. Remember to watch for early warning signs of any changes in the skin of your horse, and when noted, treat accordingly. It is also a good precaution when buying horses in the winter to ask about skin problems that could have been a problem the previous summer. You can assume that a problem last year will most likely be a problem this year. Culicoides Insect Hypersensitivity

Culicoides Insect Hypersensitivity

The areas of the horse that are most affected by CIH are the tail and mane but the ears, poll, face, chest and ventral abdomen may also be involved.

Photos by Jill Haight.

#### CIH Prevention Tips

- 1) Spray and wipe down horse with insect repellents, especially in the early morning and late afternoon.
- 2) Install a fan or be sure that your stall has plenty of airflow since the small culicoides are not strong fliers.
- 3) Keep affected horses stalled in the barn from 6pm to 8am to reduce exposure as culicoides are most active at dusk and dawn.
- 4) Enclose the stall with a fine screen to prevent the entrance of the insects into the area.

5) Cover affected horses with a "fly sheet" and "fly mask" to prevent new bites.