Skin Problems in Horses

Some of the more common skin problems in horses are covered in this information note, along with treatments and preventive measures for these conditions.

The horse skin conditions covered here are:

- Rain Scald.
- "Queensland Itch”.
- Fungal Infections such as Ringworm
- Biting Fly problems.

It is always wise to get an early veterinary diagnosis. Some skin conditions can persist for long periods, causing deeper and more chronic skin lesions resulting in permanent skin damage and hair loss.

Rain Scald.

Rain Scald is also called Streptothricosis, and is caused by the organism *Dermatophilus congolensis*.

Some horses seem more susceptible to rain scald than others.

The organism is often present on a carrier horse which has the organism on its skin, and this horse may or may not be affected by this condition itself. While there is some natural immunity, some horses seem to be more susceptible to Rain Scald, and these horses may get the infection year after year in the right weather conditions.

In order for a horse to get Rain Scald, several conditions have to exist.

- You need to have a carrier animal, or a means of transfer of the organisms via a brush, blanket, or saddle that makes contact with the susceptible horse.
- There has to be some form of extreme moisture, like heavy rainfall onto the horse.
- After heavy rain, horses with heavy coats will trap moisture on the surface of their skin, and this helps these organisms to grow rapidly.
- The horse’s skin has to have some initial surface damage – from insect bites, or a surface scrape. This initial skin damage allows the organism to infect the outer skin layer or epidermis and the infection then spreads to unaffected skin nearby. The infection causes areas of matted hair attached to the outer skin surface which will all shed in time and new hair growth will replace it.

Healing of Rain Scald Infection and Some Treatments

- This is somewhat of a self-limiting disease. The horse will probably get over the problem as it sheds its old coat. The organism prefers a lack of oxygen to grow.
Getting rid of the matted hair coat and the associated surface scab on the skin allows natural healing to progress in uncomplicated cases.

- Any kind of antiseptic is successful in killing the organism. Antiseptics like chlorhexidine e.g **Hibitane®**, at the right strength, should be applied daily for five days.
- Because this disease causes a moist, warm environment under the matted hair, a secondary bacterial infection may occur. Such infections can be more difficult to treat, and may require injectible antibiotics. The *Dermatophilus* organism itself is very susceptible to penicillin injections e.g. **Norocillin SA®** and your veterinarian can prescribe such treatments to give in more severe cases.

**“Queensland Itch”**.

This is an insect bite allergy and so it has no permanent cure. It can be controlled by regular treatments of affected horses.

It is a reasonably common skin diseases of some horses in northern and eastern Australia. It is caused by an allergic response or hypersensitivity to the bites of certain insects, particularly midges (“sandflies”). It tends to occur more in the warmer and more moist months of summer and autumn, but it can extend into the winter, especially when the weather is fairly mild and wet.

- The insects involved are mainly the classical *Culicoides spp* midges, while some other insects like *Simulium spp* (black flies) and *Stomoxys spp* (stable flies) can also be involved in insect bite allergies in some horses.
- Despite being known locally as “Queensland Itch”, and being more common in some parts of Australia, similar diseases occurs in many parts of the world.
- There appears to be a genetic or familial basis to the disease in some lines of horses. There is evidence that early, repeated exposure to bites from *Culicoides* midges may be, to some degree, protective of susceptible horses.
- This disease occurs in many different breeds, and the peak age that signs first develop is 3 years.
- Signs tend to occur seasonally, except in the tropics where it can occur all year round. It often extends in future years for longer periods, and can become a little more severe in some horses each year.
- Late summer and autumn are often the peak periods for the problem to show up, coinciding with the generally higher midge numbers at these times of year.
- A number of unrelated horses in a group can be affected at the same time.
- Self-trauma lesions on the skin are caused by the affected horse aggressively rubbing itself. There is a distinct dorsal orientation of such skin damage on affected horses. The top-line of the horse’s body and around its head, around the mane area, on the rump, and around the tail base are usually the worst affected sites.
‘Queensland Itch’ can be a severely irritating condition and is potentially quite a debilitating disease in badly affected horses. Some horses will have behavioural changes or weight loss due to constant irritation they suffer.

**Diagnosis & Treatments for ‘Queensland Itch’**
- A definite diagnosis of this condition is based on seeing marked improvement in the affected horse following application of a thorough insect control trial for 4 weeks.
- This insect control trial is twice daily treatment sprays of affected horses (ideally at dawn and pre-dusk) with an effective insect repellent spray e.g. Supershield® Insect Repellent is one effective option.
- Insect proof stables will help reduce the problem, but even such screened stables are rarely fully midge-proof. The same issue applies for rugs and hoods.
- Insect control on the horse can be tailored to the clinical signs in the affected horse. At better times of year for midges, or when the horse is comfortable and not rubbing, insect repellent applications can be reduced and treatments with some residual activity e.g. Brute® body wipe (permethrin) or Fido’s Permethrin Rinse® will help repel midges.
- There are many insect repellents which are effective, including sprays, lotions, pour-ons and rinses. Those containing synthetic pyrethroids (permethrin, deltamethrin, and related products) are often the most effective. Care needs to be observed with cattle pour-ons which are not registered for horse use, so that the carrier chemical does not also damage the skin of the horse.
- Multiple treatments will invariably be needed, from twice daily at the worst times of the year, back to weekly treatments when there are less problems.
- Steroids (such as dexamethasone injections and prednisolone granules) can help reduce initial irritation when it is severe and so prevent more self-trauma. However, such steroids rarely provide effective long-term control for ‘Queensland Itch’ especially at low doses.

**Fungal Infections.**

Dermatophytosis (commonly called “ringworm”) is caused by various species of fungi. The fungal organism invades the hair shaft, weakening it and causing infected hairs to break off.

- Predisposing factors include age (young and aged horses are more prone to “ringworm”), poor nutrition and crowded conditions.
- These “ringworm” fungi can persist in the environment for up to one year and so pose an important source of re-infection for other introduced horses.
- Horse-to-horse transmission is common, especially in groups of young horses or in sick horses that have reduced immunity.
- Spread of the “ringworm” spores occurs via infected equipment like saddles, bridles, blankets, and bedding, and with spores in contaminated horse trailers, or on yard fencing where previous infected horses were kept.
- Healthy horses rarely get ringworm more than once, as horses develop immunity after being infected.
Diagnosis of Ringworm.

Ringworm fungi cause small hairless lesions that can look like hives, and often appear as scaly or crusty areas, typically located in the saddle, face and neck areas of the horse. Lesions are often not itchy or painful, but occasionally the underlying skin may become irritated.

Treatment and Prevention of Ringworm:

- Ringworm is usually self-limiting, with the horse getting better in one to three months without treatment.
- To shorten the course of the disease, affected horses can be treated topically with a wide variety of antifungal treatments, such as Imaverol® rinse, or by miconazole treatments.
- Widespread lesions are best treated with antifungal rinses over the whole horse, such as with Imaverol® rinse (use 4 treatment rinses 4-5 days apart).
- Disinfecting the infected horse’s environment, riding tack and grooming equipment with a diluted bleach or with a commercial antifungal spray is essential to prevent new ringworm infections.

Biting Fly problems.

Stable fly (Stomoxys calcitrans) can be a biting fly pest for most livestock and it often breeds around animal enclosures, stables and feedlots.

- The adult stable fly is about the same size as the house fly. The stable fly has a stout and sharp black proboscis that is used to pierce the horse’s skin and imbibe its host’s blood.
- The stable fly will bite and worry any animal species, including cattle, horses, pigs, dogs, cats and humans. It’s painful bite allows it to ingest blood.
- Stable flies are generally present in large numbers from mid-spring to mid-autumn in favourable environments.
- Horses will try to dislodge stable flies by foot stamping, tail switching, and throwing their head downwards towards their front legs. Bot flies cause similar behaviour when around horses.
- The female stable fly lays her eggs on fermenting organic matter, or onto animal manure in association with other organic matter.
- The complete life cycle of the fly, from egg to adult, is about 13 to 18 days in temperatures ranging from 24 to 30C.
- Areas of fly breeding are common in silage, old bedding mixed with urine and faeces, or in rotting hay, straw or sawdust.
- Female flies feed at least twice each day, males less frequently. Females need 6 to 8 days of blood feeding before their egg laying starts.

Control of Stable Flies.

- Sanitation is the most effective first step in a control program. Remove manure, or spread it in thin layers for drying before incorporating it into a heap.
- Horse owners or stable-hands should regularly (weekly) remove manure from around feed bins, under fences and gates, around water troughs, and also
remove any dung mounds from horse yards. The stable fly breeds in older manure mixed with dirt, spilled feed and moisture.

- To eliminate stable fly breeding, manure can be stockpiled in a fly proof enclosure. A cheaper alternative is to cover the manure stockpile with plastic and completely seal it around the base from any fly exposure.
- Stable flies rest on shady surfaces when not active. Apply residual sprays to these surfaces, since resting flies will absorb the insecticide, which kills them.
- Residual insecticides are effective for about 7 to 10 days. Apply residual sprays onto surfaces to the point of run-off. Some examples of residual surface sprays are Coopex R.I.@, Baygon 800® and Ficam W®.
- Area sprays are short -acting, knockdown insecticides. They are most efficient when sprayed via foggers onto and around flies when they are concentrated at resting sites. These sprays only kill adult flies and so they will reduce but not eradicate stable fly populations.

Treatment of Horses for Stable Flies.
As stable flies feed primarily on the legs of horses, it is hard to administer an insecticide spray onto horses with enough residual activity to kill stable flies over several days. Many insecticide applications are required, and so this is not an ideal form of control.

Overall Stable Fly Control:
- Residual sprays of insecticide onto stable surfaces are the most effective method of stable fly control, combined with the use of area sprays (foggers) at optimum times to reduce the overall fly population.
- A residual spray applied a week after fogging will eliminate any newly hatched flies.

Skin problems in horses

Apart from the above conditions, there are other serious skin diseases of horses. An early veterinary diagnosis is essential before chronic hair loss occurs or permanent skin lesions develop.

As well as making horses to look unsightly, any major skin condition in a horse can significantly reduce it’s market value when offered for sale.

Contact : John Cronin, Veterinarian
PO Box 18137, Clifford Gardens Toowoomba Qld 4350
Mobile: 0409 334030 | Phone: 07 4614 4000 | Fax: 07 4614 0360
john.cronin@nfw.com.au | www.nfw.com.au