QUEENSLAND ITCH IN HORSES

Queensland Itch (also known as Q itch, or Sweet Itch in the northern hemisphere) is an insect bite allergy caused by midges (Culicoides sp)

What are midges?

Midges are tiny flying insects with wingspans up to 1.4mm. They are very hard to see (they are called “Noseeum’s” in Africa), and it is the female midges which causes the problem. After fertilisation, the female needs a feed of blood so that their eggs can develop, prior to laying them. The female midges often swarm and feed in large numbers. It is to midge saliva that some horses develop a skin hypersensitivity, which makes the horse very itchy.

When do they bite? Where do they live?

Midges swarm mostly at dusk and dawn, but also anytime on cloudy days. They generally live in a wet humid environment. This can be near water, in undergrowth, long grass, or under the canopies of shady trees. They occur less on exposed trees. They hate the wind, hot dry conditions, and they can usually only fly a short distance in still conditions.

Horses are therefore at greatest risk of being bitten at dawn, dusk and very overcast days, and if they graze close to where midges like to live, ie creek gullies.

When does Q itch occur, and what horses are affected?

It is usually a seasonal problem, occurring during the wet season in the tropics and subtropics, between the months of October and April, depending on when the rains occur, and it appears to be more common in darker coloured horses like bays, or dark skinned horses like greys. We also often see it suddenly in horses arriving from southern Australia.

What are the signs?

The typical signs of Queensland Itch are:

1. An itchy horse (affected horse will look for and find all sorts of places to rub-trees, fence posts, gates, star pickets, some even rub their belly on the ground).

2. Rub sores and hair loss around the face, ears, neck, along the top of the back and base of the tail.

3. Some horses have rub sores along their flank, and in severe cases they can have sores under their belly, but this is less common.

4. Wounds-some horses create wounds while scratching their itch on wire or tin.

5. Puncture/abscesses-some horses get splinters causing abscess or puncture wounds, like on the side of their face.

6. Swollen/thickened skin-after a long period of skin inflammation, the skin will become thickened and folded

7. Pigment loss/change-chronically inflamed skin can develop pigment changes.
Note that the actual bites are difficult to see-if your horse has visible bites, and they are on their legs or lower trunk, it is probably not due to midges-it may be March flies, or other biting insects.

**HOW CAN QUEENSLAND ITCH BE TREATED OR PREVENTED?**

If your horse has Queensland Itch, treatment and prevention can divided into three main principles:

**Principle 1 STOP THE MIDGES FROM BITING YOUR HORSE**

1. Move your horse to where midges aren’t-a windy hill where there is short grass, preferably in Victoria!!

2. Rug your horse-there are many rugs available designed specifically for Q itch horses, but beware-if you put a rug on a horse that is already itchy, you may have a trashed rug in a short period of time. It is wiser to start rugging prior to the risk season, before your horse becomes itchy, so the rugging is a preventative.

3. Stable your horse from one hour prior to dusk to one hour after dawn. If this is an enclosed stable, away from where midges live, you will reduce your risk greatly. A fan in the stables will also discourage midges, as they don't like wind.

4. Apply insect repellent-there are several insect repellants available, both commercial and homemade-the fact that there are so many suggests that no single one works every time. The key to using an insect repellent is ensuring it is applied regularly (ie once or twice daily), especially if your horse is standing out in the rain, which can happen for days on end in the wet season. Oil based repellants seem to deter midges more effectively, as midges don’t like oily skin. One home made repellent formula I have used with some good results is: in a 500ml spray bottle put 150mls Peanut Oil(from supermarkets), 150mls Eucalyptus Oil, 150ml Dettol, 40mls Permoxin, and 10mls Neem Oil. Shake and apply once or twice daily, avoiding eyes and mucous membranes.

5. There are several feed additives which anecdotally seem to help repel insects-yellow sulphur powder, garlic, cider vinegar, and thiamine at high doses- also avoid molasses in feed, as this seems to attract biteys.

**Principle 2 MODIFY YOUR HORSE'S REACTION TO MIDGES**

1. Diet- Omega 3 oils added to the feed will modify the chemicals in the blood which promote itch, and reduce itchiness induced by the midge bite allergy. This includes fish oil, flaxseed oil, or commercial oils like KER EO-3, which has had the “fishiness” reduced to improve palatability.

2. Vitamin B1-dietary thiamine has been shown in human studies, and anecdotally in horse, to modify reaction to midge bites, and possibly also help repel midges. Brewer’s yeast has been used in some horses, but may not have enough concentration of thiamine to have a noticeable effect in some horses. Doses in the range of 1-1.5g of Thiamine once or twice daily for a typical 400kg horse may be required to adequately reduce the itch response. Some commercial products, like Equivit B Quiet, have 20-30 times the amount of thiamine as Brewer’s yeast, and therefore would be more likely to be cost effective. It may require 1-2 weeks treatment before any noticeable effect in some cases.
3. Medications to suppress the immune system—these are Prednisalone or Dexamethasone, prescription only cortisone like medications, which are designed to suppress the allergic reaction, but can have possible undesirable side affects, and therefore should only be used under direction of a Veterinary Surgeon after Veterinary examination. They have injection, oral powder, and topical cream formulations, and the topical cream has less likelihood of causing side affects.

4. There are various Homeopathic and Naturopathic remedies, which are available, but not proven to be effective, although may help in some cases.

Principle 3  REDUCE THE ITCHINESS FROM SORES

The sores resulting from self trauma (ie scratching) will themselves become itchy and perpetuate the itch cycle. Due to the disruption of the skin’s local immune system, some bacteria and yeast on the skin can cause the skin to become infected, which can make the skin more itchy. Therefore, treating sores with antiseptic treatments like Quit Itch or povidine Iodine scrub, plus some antibiotic creams, can help to heal the sores and prevent further itch.

Whatever the combination of the above is used, the key to success is VIGILANCE and PERSISTENCE. Failure of treatment usually happens when the treatment is not used consistently, or when people give up too soon.

For any specific information and guidance on how to treat your horse, don’t hesitate to organize a consultation and examination.

Dr Steve Dennis, BVSc(Hons), MACVSc (EqMed)

Insect Repellant Formula

In a 500ml spray bottle: -150mls Peanut oil (can purchase from supermarkets)

-150mls Eucalyptus Oil

-150mls Dettol

-40mls Permoxin (or Brute)

-10mls Neem Oil (Optional)

Shake and apply regularly, more often if raining ie once or twice daily

Avoid eyes and mucous membranes.