

Bah humbug *to sweet itch*

Caused by an overreaction to insect bites, sweet itch is then aggravated by rubbing and scratching

Management approaches alone often cannot control sweet itch, but a desensitisation technique is proving successful in 60% of cases. Advanced practitioner in dermatology **Richard Morris MRCVS** explains

THE immune system is responsible for protecting an individual from attack by infectious agents such as fungi, bacteria or viruses, and repairing the body after injury. Allergies (hypersensitivity reactions) develop when an individual animal's immune system overreacts to a harmless agent that does not affect non-allergic members.

In horses this can be seen in the form of respiratory disease, such as chronic obstructive pulmonary disease (COPD) or "heaves", where an animal develops an allergy to stable dust components and starts having breathing difficulties; or in the skin with sweet itch, where the immune system overreacts to insect bites and the horse develops a skin disease.

Symptoms of sweet itch

PEGGY is a Welsh section C who began to develop hair loss and scabs along the mane and base of her tail from five years of age. Initially this was mild and was controlled with regular application of insect repellent, keeping Peggy stabled at dawn and dusk (when the insects are most active) and away from water courses and trees.

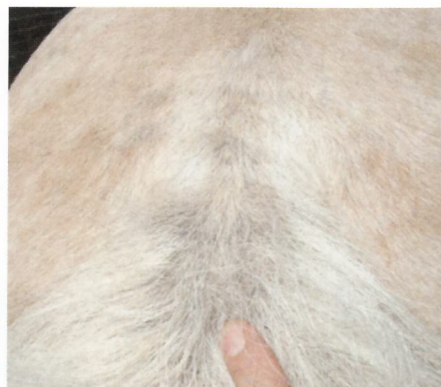
But despite these attempts to manage her condition, she deteriorated over the next four years, so her owner started to cover Peggy in a protective rug — a Boett Blanket. However, Peggy was so itchy she continued to rub and shredded the sheet in a short period of time. She also had become restless, started head-shaking, and began to lose weight because she spent so much time rubbing and biting her skin, she neglected to eat.

Since management approaches alone weren't keeping the condition under control, Peggy's owner asked me to

see if other treatments were available. About this time a new treatment called desensitisation was being tested to try and dampen down the immune response to insect bites.

A potential cure

DESENSITISATION involves administering initially small doses of the agent to which the patient is allergic, and increasing the dose slowly over a few weeks to try and make the patient's immune system tolerate the agent and no longer overreact. In this



Peggy rubbed her mane until it bled and she developed hair at the base of her tail due to excessive rubbing



The key culprit for sweet itch in horses is the *Culicoides* biting midge

Fast Facts

- SWEET itch is an equine hypersensitivity reaction to biting insects. In the UK these are the black fly (*Simulium*) and the midge (*Culicoides*), which are active from March to November. They swarm at dawn and dusk in wooded areas near slow-moving streams, and the females need a blood meal to form and lay their eggs in the soft mud, and so settle on any nearby animals to feed.
- Sweet itch is the most common allergic skin disease of horses, affecting about 5% of UK horses.
- Symptoms develop from four/five years of age and get worse as the animal gets older.
- There is a strong hereditary component with certain breeds being overrepresented (Welsh, Shire and Icelandic breeds).

- The main symptom is itching of the mane, base of the tail, and under the belly.
- Initially the problem is seasonal but it becomes progressively worse over time and eventually affects the individual all year round.
- Self-inflicted trauma from rubbing produces hair loss, bleeding and thickening of the skin.
- The diagnosis is best made by a veterinary surgeon. There are many types of antibodies involved in allergies and so far blood tests for sweet itch have not been helpful, but intradermal skin tests can be useful. The veterinary surgeon investigating the case also needs to take skin samples for analysis to rule out similar diseases, such as ringworm, lice and chorioptic mange.

particular treatment Peggy was given three injections of increasing strength a week apart and a course of oral capsules administered over several weeks.

Unfortunately in Peggy's case there was little improvement in her condition by the end of the trial. However, other cases treated with desensitisation produced significant improvement. The allergen preparation, dose, site of injection and duration of treatment may all play a part in the efficacy of immunotherapy and recent studies have shown desensitisation to be effective in 60% of cases.

Because Peggy was still itchy and none of the other treatments were working, an oral preparation of nicotinamide (an immunomodulator — a substance that regulates the immune system) was started. As a last resort, short-acting intravenous cortisone injections and topical cortisone sprays

were administered to settle down the skin disease. The condition was eventually brought under control using a combination of the management approaches and medical treatment, but care has to be taken when giving corticosteroids to horses to avoid setting off laminitis.

Sweet itch can be a crippling disease, leaving horses miserable as they suffer from the constant dermatitis. However, by taking on changes in management and using medication where appropriate, the symptoms can be brought under control and affected horses allowed to live a normal, comfortable life. **H&H**

• *Richard Morris MRCVS is director at Fenwold Veterinary Practice in Lincolnshire, an XLEquine member practice, where he runs a dermatology clinic. www.xlequine.co.uk*



SWEET ITCH: DOS AND DON'TS

DO...

- ✓ Call out your vet to investigate your horse's skin problem — there are a large number of causes of equine skin diseases, such as fungal (ringworm), bacterial (rain scald), parasitic (lice, mange), as well as allergic reactions to bedding, insect bites, dust mites and pollens.
- ✓ Use insect repellents or insecticidal sprays regularly to reduce attack from biting insects.
- ✓ Use a fly sheet to help avoid contact with the biting insects.
- ✓ Install a ceiling fan in the stable — midges can't fly if the wind speed is over 5mph.
- ✓ Apply a fly screen to the stable door.
- ✓ Use topical oils (such as Avon Skin So Soft) to discourage midges and black flies from landing on the skin and feeding.
- ✓ Move your horse to a windy hillside where there is less chance of encountering biting insects.

DON'T...

- ✗ Keep your horse near water courses and trees, where there are high numbers of biting insects.
- ✗ Keep your horse outside at dawn and dusk when it is open to attack from biting insects.
- ✗ Rely on corticosteroids unless as a last resort because of the risk of setting off laminitis.



The protective Boett Blanket in use — although Peggy unfortunately tore hers to shreds