

Question: My calves always seem to get ringworm. What is the best treatment and can I eradicate it from my herd?

Answer: Ringworm (barn itch, dermatophytosis) is the most common skin infection of cattle and is caused by a spore forming fungus called *Trichophyton*. Spores can remain viable for months in the soil or bedding and for years on objects such as halters, grooming equipment, working facilities, and barn surfaces. Cows become infected by simple contact with dormant spores from objects or other infected cattle. Upon germination the fungus invades hair shafts and superficial layers of skin. Body fluid exudes from the damaged skin and mixes with dead tissue to produce the classic tan or gray elevated crusty scab. These lesions are generally circular or oval in shape but they may coalesce to produce large irregular patches. Ringworm is usually found on the head, neck and trunk of calves, particularly around the eyes, ears, and muzzle. Unthrifty animals and those with compromised immune systems tend to be much more severely effected than healthy calves. Winter housing, confinement, and crowding are more conducive to an outbreak than summer pasture. This is a self limiting disease in that animals develop immunity to the fungus and the infection usually resolves in 2 – 6 months without treatment. It is uncommon to see ringworm in adult cattle, especially if they were infected as calves, but sporadic cases do occur.

Diagnosis is usually made by clinical appearance of ringworm lesions. This can be confirmed by microscopic examination or laboratory culture on selective media. Early lesions can resemble warts or other skin infections.

While inflammation and itching can be an annoyance to growing calves and hinder optimal performance, ringworm has minimal effect on their overall health. Reasons for concern include the fact that it can spread to people, especially young children, and be quite uncomfortable. Because it is highly contagious, infected cattle are prohibited from sales, shows, and interstate travel.

There are several reasonably effective treatments for ringworm but in many commercial situations the intensive labor involved in catching, restraining, and treating large numbers of animals is impractical and the disease is left to run its course. Topical treatment is most effective if the lesions are first scraped or brushed to remove the crusty scab. This is particularly difficult when eyelids are involved and care should be taken to avoid contact of medication to the eye. People handling these animals are advised to wear gloves and wash thoroughly when finished.

After scraping, one of many products can be applied to all effected areas daily or every other day for 2 – 5 treatments. These products include: iodine, sodium hypochlorite (Clorox), captan (antifungal used in horticulture), miconazole, tolnaftate, or clotrimazole (antifungal creams used in human and small animal medicine). Treating groups of calves with whole body sprays of dilute captan is also advocated as a less labor intensive regimen for topical treatment. Systemic treatments include intravenous sodium iodide which must be administered with extreme caution and should not be given to pregnant animals. Injections with Vitamins A and D are recommended by some for prevention and treatment particularly for animals that have not been exposed to sunlight. Griseofulvin is an oral antifungal, commercially unavailable at this time, which is expensive but an effective systemic treatment. Consult with your veterinarian for specific recommendations and whenever using a product not labeled for use in cattle.

A thorough bathing of the animal with iodine or other antifungal soap following treatment will help insure that all fungal spores, not visible, will be removed. The animal is usually considered free of contagion when the lesions are no longer present or new hair is growing on the site of treated lesions. Treatment should begin at least one month before any anticipated show, sale, or request for health charts.

Once ringworm is present in a herd, new infections can be effectively minimized but complete eradication is extremely difficult. After animals are treated or removed all contact surfaces including barn, working facilities, wood fences, posts, feed bunks, equipment, etc. should be pressure washed, steam cleaned, or scrubbed with soap and water to remove all organic matter. This should be followed with either phenol or chlorox disinfection. One part chlorox to three parts water sprayed on all cleansed surfaces is quite effective. Avoid re-introduction of infected cattle and treat new infections promptly. Crusts that are scraped from ringworm contain infective spores. They should be removed from housing areas and incinerated or treated with disinfectant.