

# How I treat ringworm...

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## Introduction

It's a common phenomenon in cattle practice for vets to develop their own techniques and theories about diseases that they see commonly, but generally in isolation from other vets. This series of articles demonstrates clearly that there is more than one way to do things...

This instalment of the "How I Treat" articles is on the topic of ringworm.

Ringworm is one of those diseases that will generally go away in time despite anything that you might rub on, spray on, or inject. The trouble is that nowadays farmers may have cause to want ringworm gone sooner rather than later. The presence of ringworm can stop a whole group of heifers being exported to China for example – making it a potentially very expensive disease. Shows and sales present similarly important deadlines on occasion.

For the purposes of this article, as has become customary, and email was sent to a number of ACV members chosen at the whim of the author, asking them to describe their approach to the treatment of ringworm. A summary of the responses is provided here ...

## Results



"In cattle – you should say ringworm or dermatophilus or lice as your ddx. Usually I just let it run its course. Don't see how it could be a zoonosis. All treatments work eventually. Bleach is better. Cheaper. Imaverols are exxy. Remember, these are economic modules of production, not effing pets."

"Imaverol is a synthetic antimycotic. It is recommended for the treatment of dermatomycoses or ringworm in cattle, horses and dogs, and contained pathogenic fungi such as *Trichophyton verrucosum*, *Trichophyton mentagrophytes*, *Trichophyton equinum*, *Microsporum canis* and *Microsporum gypseum*. The concentrated Imaverol solution should be diluted by adding one part to 50 parts of warm water, to provide a 0.2% w/v emulsion. It is highly recommended that the animal be sprayed entirely at the first treatment so as to reach the subclinical lesions as well. In theory you should treat them three times at three day intervals but I reckon a single treatment works well with a sprayer or high-pressure cleaning unit."

"When do we see it? Very irregular - there is usually a history of new

introductions and either the newbies or the existing herd get it. Do people ask for advice? Yes – old & new farmers as well as hobby farmers will ask about it. More of a concern to people showing cattle. I tell them if they ignore it, it will go away except in rare cases in very run down animals. Treatment may slow the spread and encourage shorter time to clearing the herd, perhaps accelerate healing in individuals. My impression is it takes 3 – 6 months to go away by itself – no good direct evidence though. Risk factors - new introductions. Treatment - Individual lesions and animals povidone iodine scrub. Whole animal – halamid/halasept style chlorine products if the animal can get dry & stay dry afterwards. Used to have success with griseofulvin when there was a registered product, but expensive as is Imaverol. Vigorous treatment of individuals probably does some good, but I think inconsistent treatment and washes on a herd basis probably risks making it spread more by making skin more susceptible. I've never seen or heard any evidence of it being a zoonosis. Hopefully people are not rubbing their skin against the animals!"

"Yes we do get quite a few people asking - probably not the really experienced cattle men and women though. Tell people most animals will eventually develop immunity and resolve the lesions. Often there is immune compromise when we see outbreaks, eg severe malnutrition, weaning, etc. Have not diagnosed a known PI with ringworm but imagine they may be a problem wrt recovery. Time to resolution depends on how many in the herd (ie it may go through a large number of them), intensity of management (ie contact), general health of herd, etc. If people are keen to do something we give them iodine (or lots of people already have this for calvings, teat dip, etc. Was taught it was a zoonosis so always warn clients that especially immune naive people, eg children may be at risk of developing ringworm. Have certainly seen cat ringworm affect whole households, adults, children, dogs."

"Individuals you cannot beat imaverol and a surgical disposable scrub brush. Groups? Let it run in a paddock, yard situation. Have to consider the zoonotic potential as I have seen it in meat workers."

"In paddock cattle I tend to not treat as in my experience it tends to be self-limiting when cattle are not under stress and are immune competent. Where cattle do need treating I believe the most effective Tx is a one of treatment with Sodide at label dose rates, however this is often not cost effective. My next preferred Tx is to spray effective animals EOD for 3x Tx with Nycex. It is a little labour intensive but cheap and yields good results. Nycex is a Mavlab product – you can get it in 1kg tubs and it contains Chloramine 1000 g/kg."



We don't see a lot of ringworm in cattle. Of the cases that we see, we often recommend separation of affected calves and using dilute betadine washes on a daily basis for minor cases. If these cases are non-responsive, or if the infection is widespread, while off-label, we will often turn to Malaseb or Imaverol washes. We discuss withhold periods with the owners to work in with their plans for different stock. With the use of these products, we tend to get excellent results. Some cases respond well if using washes in conjunction with injectable antibiotics if there is evidence of deeper secondary infection. On occasions, topical creams have also been used."

"My view is that you can treat ringworm for 8 weeks or do nothing and it will get better in 2 months! On an individual basis where an animal is due to go to show then I would recommend using imaverol as a topical wash every 4-5 days for as long as necessary. Gets quite expensive. Have seen many treatments used and nothing else is very convincing. Sunlight and age is probably best."

We don't take many calls asking for advice on ringworm, the calls we do get relate mostly commonly to symptoms in calves and cattle under 1 yo. Cases we are called to seem to occur from April to December, most of them are winter /spring -so they are not occurring during mid summertime. Having stated this I note that when preg testing during January to March I often do observe individual heifers with only a few small lesions. In this situation I advise the client that ringworm is contagious and is usually a self limiting disease and the affected cases will make a full recovery without any need for treatment. I am not aware of a situation where a farmer has called back to request treatment because the disease has spread through his mobs following the detection of a few cases at preg testing.



"We diagnose ringworm when we see animals with roughly circular areas of grey crusty raised skin with most lesions around the face, neck or forequarters. We sometimes collect hair samples for dermatophyte culture. Sometimes culture results are negative even though the clinical signs are strongly suggestive of ringworm - ? poor sampling technique. I believe we see more cases in tough years when young cattle are not thriving. They all recover without treatment but some can take many months to get back to a healthy coat. The clients that do want treatment usually have animals going for sale or stud animals to be shown. I don't believe treatment significantly speeds up recovery. It probably limits environmental contamination although I had a client with a small stud operation and she housed the cattle most of the time. Ringworm was a problem. Topical treatments and environmental disinfection of the premises did not change things much. When we altered the management to have the animal spend more time out of the shed there were far fewer cases. If called to treat we have used whole body wash/spray with halamid or equivalent

chlorine disinfectant -usually once and local treatment of lesions with iodine spray every 2nd or 3rd day for 1-2 weeks. Also have used povidone iodine surgical scrub or just the iodine spray on its own. We recommend disinfection of halters, ropes etc and cattle grooming equipment. I am not aware of any of our clients or vets in the practice having contracted ringworm from handling infected cattle so am not certain of the true zoonotic potential, but I do always remind clients of the risks and discuss hygiene."

"If the condition is active and widespread in a particular group (weaners or export/sale cattle), I advise treatment with a basic spray medications of iodine, Captan, domestic bleach diluted one to nine or similar. I find many of the specific fungicide medications rather expensive for general use particularly when large numbers are available. Otherwise, the condition is allowed to run its course and hopefully disappear..."

"We have had about four episodes of ringworm in our weaners over the last thirty years including this year. It has not affected any adult cattle. The herd is predominately Droughtmaster with some Brangus, Brahman and Charbray. All breeds have been affected. Weaning here occurs between April and late June depending on the season. Weaners are yard weaned and fed in small paddocks during the day. They are back into the yards at night for up to ten nights before going out to other paddocks if heavy enough. Lighter weaners stay around in the small paddocks until they reach a target weight (taken two to three months this year due to very dry conditions). 10-15% of weaners have been affected this year. The lesions are on the face and ears with a few on the neck. Those affected have weight gains comparable to the rest of the mob. A common theme in the episodes of ringworm is: Rain - does not have to be much (30mm in May this year in an otherwise very dry year); Weaners lighter than normal due to the season (very light weaners this year) - possibly immunologically compromised or may be just that being lighter weaners, they are fed longer; Weaners fed in troughs - very close contact. Treatment: Spray lesion with iodine (5mg/mL) when they are in the race or crush to be weighed; Repeat each time weighing occurs; Not absolutely thorough treatment as some lesions may be missed. This has worked reasonably well on the outbreaks prior to this year. This year we did not stop the spread of ringworm so eventually discontinued treatment."



"I saw a case where unfortunately, some kids, helping to groom and show cattle, developed ringworm as did their parents. The parents only suffered a mild skin infection on their arms but their eight year old daughter developed a more severe form of the infection on the top of her head called a 'kerion'. A paediatrician I spoke to is aware of three

children from the one school class who are being treated for the condition, with the most recent two being detected quite early and therefore less severe. Once treatment is started, the children quickly become non-infectious to others and can return to school after 5 days. The healing of the scalp and hair regrowth however can take many months. The family of the first infected child told me that several other families have infected cattle and kids after returning from this heifer show. They asked me to alert people to the dangers of ringworm spreading from animals to people. Last year I saw quite a few cases of ringworm in young cattle and warned of the dangers of ringworm spreading to people, especially kids. I advised those treating animals for ringworm to wear gloves. I also mentioned my preference for the safer option of squirting the lesions with an iodine spray rather than scrubbing them. Treatment however can speed up the process and greatly reduce the number of infected spores in the environment. I have only looked at two affected cattle and spoke to their owners and the family affected by the child's ringworm. Therefore, I am not certain that the ringworm spread at the heifer show and I am not sure how many other cases developed. However if the ringworm did spread during the heifer show, why? Ringworm can spread when people share grooming gear and other equipment. Ringworm fungal spores are very resilient lasting for a year or more in cool, moist, sheltered situations. Disinfection of equipment and the facilities is therefore warranted. Kids get great enjoyment from preparing animals for shows. However, watch closely for the circular, grey, hairless patches usually around the head and neck that characterise ringworm in cattle. Finally as I was doing a bit of reading on this subject I found out that American kids preparing lambs for shows catch 'club lamb fungus' or ringworm from their lambs. I have never seen ringworm in lambs in Australia."

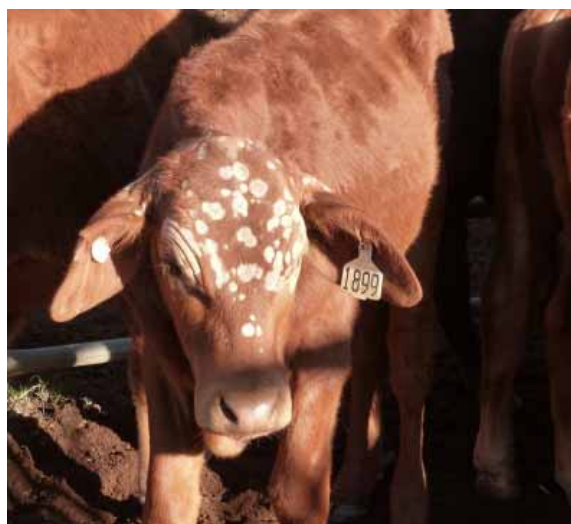


"We see next to none. Saw an Angus Stud sale recently with ring worm lesions that had been treated blacked over with boot polish for the sale, so that they were not noticeable! I recommend segregating the affected animals, scrubbing and washing the lesions with iodine wash and putting out iodine salt blocks. I also like to know whether Se is deficient in the soil and give a Se injection if this the case"

"Just got onto one of my clients to ask him about some jersey show/ sale yearling heifers that had ringworm last year. I had suggested at the time that he try using his iodine teat spray mixture on them, just for ease of treatment. He had very good success- sprayed them once daily for 2 weeks and they cleared up very quickly. He used "Masodine 1:3" 2.5%w/v concentrated ionophore Teat Dip/spray -6 litres made up with 18 litres clean rain water. It contains glycerine

and sorbitol also."

"We see Ringworm when there's a lot of moisture around, often in young cattle, but rarely get asked about treatment. Cattle just get over it in time. If the young cattle are destined for a feedlot, it can be an issue, in which case advice for treatment is sought. In the past, we've recommended Imaverol or Iovone, sponged onto the areas, and repeated after a week. Recently, we supplied Nycex, which proved to be quite economical. It was sprayed on with a garden spray unit. We assume that these treatments have worked, within the constraint of time for hair regrowth, as we've had no feedback to suggest otherwise."



"I had a client put a shovel of pool chlorine into the firefigther & spray them in the crush. Seemed to work."

"Halamid, sold now as Nycex, works well. I see no reason why pool chlorine would not work."

"One of the biggest headaches we have with Ringworm in export cattle is the not knowing how the quarantine "vets" of the importing countries will view cattle with ringworm. The environment on boats is ideal for ringworm to spread. It takes weeks for hair to regrow."



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