TB Update
By Stephen Mulholland, Ph.D.

On October 1st, 2012 there was a meeting at the Animal Health Board (AHB) to discuss the current state of tuberculosis risk and testing in camelids. I attended to represent the LANZ.

First, a bit of information about the AHB and their role in TB prevention and control might be helpful. The AHB is not a government department, rather they are an incorporated society that is tasked as a Pest Management Agency under the Biosecurity Act 1993. They get their funding from the dairy/beef/deer industries (40%), local government (10%) and the crown (50%).

Their goal is to make New Zealand TB-free, specifically this means eradicating the bovine-TB strain (*Mycobacterium bovis*). There are many different species of mycobacterium which can cause TB, but it is *Mycobacterium bovis* which is the main threat, and it is the sole target of the control and eradication policies.

The possum is the only major maintenance host for *M. bovis*. While there are wild deer and pigs with TB, they are not the main problem. Eradicate the TB from the possum population, and it will naturally clear from the deer and pigs due to the inevitable death of the infected animals.

The goal of the AHB is not to eliminate the possums, but rather to eradicate TB from the possum population.

How are llamas and alpacas at risk?
The primary cause for a llama or alpaca to pick up TB is from exposure to an infected possum (a vector). While 15 years ago there were 1700 infected cattle and deer herds, now that number is down to about 70 (and in most of those cases it only involves a very few infected animals on any given farm), so it is highly improbable that your camelid could get an infection from infected cattle or deer.

Their risk from possum infection arises from their natural curiosity. If an infection-riddled, near-death possum goes staggering into their paddock, they may approach and give it an inquisitive sniff (behaviour we have all seen often enough when they are checking out cats, dogs, or anything else new that comes into the paddock). That single sniff could be enough for them to get infected.

While about 40% of New Zealand is a vector-risk area (contains infected possums), most of these areas are remote bush. You can check out the latest maps of the relative risk areas on the tbfree.org.nz website. Just go under TB Control programme > Disease control areas and check the two links on the right for maps.
If you don't live adjacent to a possum-filled bush block in a potentially TB-infected area, then your risk is probably very, very low. You can help to further reduce the risk wherever you live by maintaining a possum-control program on your property.

Do I need to test?
There is no legal requirement to test. You'll need to hold a current TB-test clear certificate if you want to attend shows, but that may only require testing up to once every 3 years, depending where you live (check the map links above).

If you're not planning on attending shows, then the AHBs informal recommendation is that you only test if you live in a movement control zone, or if your alpacas or llamas travel into a movement control zone (trekking, etc).

The effectiveness of the skin test is suspect, however, so it should not be relied on alone. If you live in a TB risk area, I highly recommend you get a post mortem on any of your adult animals that die, especially in the cases of sudden, unexpected death. That is the surest way to spot if TB was the culprit.

Can someone force me to test?
No. As a voluntary scheme, nobody has the power or authority to compel you to test. If the *M. bovis* organism is detected by culture (something that is only really possible after a post mortem, when your vet has sent suspicious lesions away for lab analysis) then statutory powers kick in giving the AHB some authority. A positive skin test in camelids does not trigger such a response (however it does in farmed cattle and deer).

What do I do if I get a positive test?
First, don't panic. It is much more likely that you have a false positive, meaning that while the test showed a reaction, your animal is actually fine.

You are not legally obliged to take any action, but it would be prudent to test the animal further to ensure it was a false positive. There is a second comparative skin test that can be used to see if it was the avian form of TB (which is not a problem, but as a skin test its effectiveness in camelids is also suspect). There are also blood tests which can look for antibodies to *M. bovis*. Talk to your vet. You can also contact me ([stephen@suncrow.com](mailto:stephen@suncrow.com)) and we can discuss your situation and options.

Can anyone force me to test, or force me to destroy an animal if it tests positive?
No. Legal authority only engages if proof of *M. bovis* is present, and a positive skin test is by no means proof of *M. bovis*.

What about the previous cases? Didn't experts in the UK think they were safe, too?
The TB situation in NZ is completely different to the challenges faced in the UK. Here the TB risk is in steep decline. While there have been cases of TB in alpaca (in 2000 and 2003) in NZ, those cases needs to be kept in context- the cattle and deer herd infection rate in NZ has dropped by 96% over the last decade.
The take away message is that our concern level should be going down. Test your animals if you are in a high-risk area. Post Mortem any animal that dies for suspicious or perplexing reasons (because even if its not TB, it might still be an infection or condition that could put your other llamas or alpacas at risk).

If there are any further changes or updates, I'll be sure to let you know.

(Thanks to Dr Stu Hutchings of the AHB for his help in preparation of this document. Any errors or omissions are my own.)