

## **FAQs - Atypical scrapie/Nor 98**

**October 2009**

### **What is the current issue?**

Brain material from a New Zealand born and bred sheep has tested positive for the brain condition atypical scrapie, also known as Nor98.

New Zealand is classified as free from the classical form of scrapie (known as scrapie) and for this reason, supplies brain tissue specimens to the EU for use as negative controls in their development of rapid tests for the detection of bovine spongiform encephalopathy (BSE) and scrapie.

A UK reference (expert) laboratory found that one sample from a recent consignment of 200 brain samples returned a positive test for atypical scrapie/Nor 98. Subsequent testing in Denmark and New Zealand, using ELISA and western blot tests, revealed conflicting positives and negatives. A final definitive test undertaken by the Veterinary Laboratory Agency (the international experts on transmissible spongiform encephalopathies (TSE) testing) returned a positive result in October 2009. This is the first positive detection of this condition in a sheep from New Zealand's national flock.

### **What is atypical scrapie/Nor 98?**

Atypical scrapie/Nor 98 is a brain condition which can occur in sheep and goats. It was first identified in 1998 in Norway (when it was named Nor 98) and is quite different from classical scrapie.

The United Kingdom Spongiform Encephalopathy Advisory Committee (SEAC) has concluded that: 'On the basis of a number of characteristics, atypical scrapie can reliably be distinguished from both classical scrapie and from experimental BSE in sheep.' Their statement goes on to say, 'on the basis of emerging data, it may be more appropriate to consider atypical scrapie as a distinct TSE (transmissible spongiform encephalopathy) of small ruminants and not simply a variant of what is now called classical scrapie.'

The evolving and increasingly widely accepted mainstream international scientific view on atypical scrapie/Nor 98 is that it is a spontaneous degenerative brain condition that naturally occurs in a small proportion of older sheep, and less commonly, in goats. There is good evidence it is not contagious i.e. passed from animal to animal.

### **Does atypical scrapie/Nor 98 pose a threat to human health?**

No risk to human health from atypical scrapie/Nor 98 has been identified.

Neither classical nor atypical scrapie/Nor 98 are considered by the science community and health professionals to be a risk to human health.

Classical scrapie has been known of for over 200 years and has not been associated with human illness.

### **Does atypical scrapie/Nor 98 affect the safety of eating sheepmeat?**

The New Zealand Food Safety Authority agrees with the UK Food Standards Agency's advice that there is no reason to stop eating lamb or mutton (sheep meat) and goat meat or products derived from these animals.

### **Is atypical scrapie/Nor98 an animal health issue?**

Unlike other livestock diseases, and 'classical' scrapie, atypical scrapie/Nor 98 is not believed to spread naturally between animals. Most cases of it are typically found as a single case in a flock. Even when authorities have returned to flocks where a case has been found, and slaughtered and tested all remaining flock members, there are usually no further cases. Atypical scrapie/Nor98 is believed to arise spontaneously in older sheep of certain genotypes.

### **Can New Zealand continue to claim scrapie-free status?**

New Zealand is free from scrapie and continues to claim scrapie freedom as part of trade conditions.

### **How can we be sure we don't have scrapie?**

Over the past decade New Zealand has sent approximately 2,000 sheep brains to the EU for examination. As well, we run our own domestic scrapie surveillance programme where the brains of animals exhibiting neurological symptoms are examined. Scrapie has never been detected.

### **Is this positive result a surprise for New Zealand?**

This positive result is not unexpected. We have known for some time that, due to the condition being a sporadic naturally-occurring condition in older sheep, it would likely be present in the New Zealand flock. Evidence shows us that every country that has actively looked for atypical scrapie/Nor 98 has found it.

### **Whereabouts has it been detected?**

Atypical scrapie/Nor 98 has been reported from Norway, Sweden, Finland, the UK, Germany, France, Portugal, Belgium, the Netherlands, Ireland, Denmark, United States, Canada and the Falkland Islands.

### **Is atypical scrapie/Nor 98 a rare condition?**

No. As above, it has been found in all countries which have looked hard enough, but at a very low frequency in the sheep population – fewer than one in 1000 animals tested.

### **Are there trade implications for New Zealand as a result of this detection?**

There are no animal health or public health reasons for trade impacts.

Last year, after examining member country submissions and investigating rigorous scientific research, the OIE (World Organisation for Animal Health) decided that atypical scrapie/Nor 98 should not be listed in its Terrestrial Animal Health Code. The Code sets out trade recommendations or restrictions for listed diseases or conditions, and the OIE determined there was no need for such recommendations around atypical scrapie/Nor 98.

### **What will we be doing in New Zealand following this detection?**

There will be no attempt at any eradication programme. Eradication is not possible or justified because of the growing international acceptance of the view that atypical scrapie/Nor 98 occurs spontaneously or naturally in sheep populations as a very small minority of these animals age. There is no imperative to attempt eradication given the lack of known health concerns for humans or other stock and the OIE's position on the condition.

The OIE has, in accordance with New Zealand's animal health reporting obligations, been informed. Other interested parties such as the primary industries are also informed.

### **Will we undertake surveillance for atypical scrapie/Nor98?**

There is no reason to undertake surveillance for this condition given the lack of human or animal health concerns, and considering the OIE's position that it has no place in the Terrestrial Animal Health Code (see above question on trade implications).