

FARM RODENTS SOURCE OF DISEASES

Rats and mice on farms carry more unpleasant diseases than was previously realized, according to research by PhD candidate Inge Krijger.

Rodents can spread zoonoses, infections that can be transmitted from animals to humans. Krijger studied rodents that had been caught in and around farms, mainly pig farms. She found the bacterium *Leptospira*, which can cause Weil's disease in humans, the parasite *Toxoplasma gondii* — aka the 'cat litter parasite' — which is dangerous to pregnant women, and the intestinal bacterium *Clostridium difficile*, which causes severe diarrhoea.

ABATTOIR

The *Toxoplasma* parasite was found in pigs in an abattoir belonging to meat producer Vion. Krijger visited five clean farms and five infected farms supplying Vion and caught mice and rats there to see whether they were infected with the parasite. To her surprise, they were not. Later, she discovered the probable cause. She had also tested rats from Texel and it turned out they were infected with *Toxoplasma*. Those rats were caught in a recreational area with a lot of stray cats. 'Rats can be carriers but cats are the

ultimate hosts for *Toxoplasma*.' She did not come across any cats on the pig farms. 'The pigs were probably infected with *Toxoplasma* from a supplier with cats.'

URINE

It was already known that the bacterium *Leptospira* is widespread among brown rats. However, Krijger found the bacterium in other rat species and in mice. The bacterium spreads via the rodents' urine and via the drinking water of livestock. *Leptospira* was more prevalent on farms than the researchers had expected. As regards *Clostridium*, sometimes called the hospital bacterium, Krijger found a type in the rodents that had not previously been described in humans.

Krijger believes it is important to do more in terms of prevention. 'Wherever humans are, rats and mice are found too. They need to be tackled so that they don't become a pest.' **AS**

