

Protecting people and livestock from infectious disease

By Mark Ross

Vaccination is the most effective method of protecting against life-threatening diseases such as distemper, hepatitis, parvovirus and leptospirosis, which affect New Zealand animals.

New Zealand has one of the highest rates of leptospirosis in the world, according to the New Zealand Veterinary Association (NZVA). The zoonotic disease is shared between rats, dogs, pigs, cattle and people. It puts farmers, particularly dairy farmers, at risk as it can spread from infected urine in dairy sheds. It is also an occupational risk for meat workers, who can contract the disease in the same way. According to the NZVA, anyone in contact with cattle could be at risk.

Cases of leptospirosis fell sharply after herd vaccinations were introduced in 1981. But recently, Radio New Zealand reported that 91 people had contracted the disease in the first half of 2017 and that more than two-thirds of them had been hospitalised. Incidents of the disease have tripled in the first half of the year – which is worrying health experts. One possible reason for the spike is the recent wet weather and contaminated flood-waters - as water can carry the disease.

To overcome the increase in infection and break the cycle of infection, a robust herd vaccination programme is essential, along with personal hygiene.

The spread of disease between humans and animals isn't going away. With global increases in population, the risk of zoonotic diseases spreading will only increase as humans and animals live in increasingly close proximity. This will also be the time when food sources and agriculture are under the most pressure.

In human medicine, vaccines have eradicated diseases such as smallpox and polio. Smallpox used to cause death all around the world. Thanks to widespread use of the vaccine, the last natural case of smallpox occurred in 1977. In 1980 the World Health Organization (WHO) declared that the disease had been wiped out. Vaccines have also helped reduce the number of new diphtheria and measles infections by more than 95 percent compared to peak incidence rates.

Vaccination has profoundly influenced and improved world health for both people and animals and will continue to be a fundamental tool to meet future health challenges.

The medicines and vaccines produced by the animal health industry have been strikingly successful in controlling many diseases. As the industry association that represents animal health manufacturers of New Zealand, supporting the health and well-being of pets, livestock, people, and the environment, is of vital importance. To this end, Agcarm supports the global 'One Health' campaigns addressing antimicrobial resistance, zoonosis as well as vaccination.

As we look to the future, advances in technology are allowing the development of new vaccines, such as the recent creation of a vaccine against the feline immunodeficiency virus (FIV) in cats.

Continuous investment in breakthrough technologies and innovation is imperative to control diseases among animals as well as their spread to humans, as are appropriate government strategies for disease eradication.

To ensure that people and animals remain healthy and productive, it is vital that we continue to use and develop vaccines to limit the spread of disease.

- Mark Ross is the chief executive of Agcarm, the industry association for crop protection, animal health, and rural supplier businesses.

Photo Caption: Herd vaccinations are vital to prevent the spread of leptospirosis.