

### **Can leptospirosis be prevented in cattle?**

Pfizer recommends the use of Ultravac<sup>®</sup> 7in1 or Leptosshield<sup>®</sup> because they are registered in Australia for the prevention of renal colonisation and urinary shedding of *L. Hardjo* and *L. Pomona* in uninfected animals. This means that following vaccination, animals which then come into natural contact with the organisms will not only resist infection, but they will also not excrete the organisms in their urine – true protection! Ultravac<sup>®</sup> 7in1 also provides protection against the five main clostridial diseases – black disease, blackleg, pulpy kidney, malignant oedema and tetanus.

Ultravac<sup>®</sup> 7in1 and Leptosshield<sup>®</sup> are the only vaccines with an early calf vaccination program that is recommended from 4 weeks of age although it may be more practical to begin vaccination at 6 weeks of age to prevent the use of 3 doses (see vaccination schedule overleaf). This enables greater flexibility of calf vaccination and ensures protection against disease from the earliest possible age. It is important to have calves fully vaccinated before they are challenged. This will reduce the chance of cattle and human infection.

Early vaccination of calves is important to prevent infection and the development of urinary shedding in carrier animals. Animals that are already infected and shedding leptospires at the time of vaccination may continue to shed leptospires for 12 months or more.

Ultravac<sup>®</sup> 7in1 and Leptosshield<sup>®</sup> are also the only leptospirosis vaccines that can prevent reproductive tract colonisation and prevent foetal and placental infection with *L. Hardjo*.

### **What vaccination program is recommended?**

The primary vaccination course consists of 2 doses of vaccine, with the second dose administered 4–6 weeks after the first. Annual booster doses are necessary to maintain protection.

### **Vaccination of calves**

Ultravac<sup>®</sup> 7in1 and Leptosshield<sup>®</sup> are the only lepto vaccines that have been shown to be efficacious in the presence of maternal antibodies. Where calves are expected to have adequate levels of maternal antibodies, vaccination should be commenced at about 6 weeks to 3 months of age. If the level of maternal antibodies is expected to be low or absent, vaccination should be commenced at 4 weeks of age. If the second vaccination is given at less than 3 months of age, a booster should be given at 6 months. The recommended vaccination schedule is shown above.

### **Herd vaccination**

All cattle on the farm can potentially be infected and shed leptospires if not vaccinated. This includes bulls and steers. When beginning a vaccination program or introducing new stock with an unknown vaccination history, it is essential to vaccinate all the animals with a primary vaccination course consisting of two doses, 4–6 weeks apart. It should be noted that introduced animals already infected with leptospirosis may still excrete leptospires after vaccination and may require concurrent treatment with antibiotics.

### **Recommended vaccination program**

Two doses 4–6 weeks apart, then a single booster dose annually. 1st Dose, 2nd Dose, Booster.