

**Vibriosis (genital campylobacteriosis) can significantly reduce herd fertility and reproductive performance without distinctive or obvious signs.**

## **What is Vibriosis?**

Vibriosis is a venereal disease of cattle caused by a bacterial infection with *Campylobacter fetus* subspecies *venerealis*. It is widespread throughout the Australian cattle herd and is regarded as a very common cause of infertility and sporadic abortion in all cattle breeding areas.

## **How is the disease spread?**

Vibriosis is spread at joining either from an infected bull to an uninfected cow or vice versa. Infected bulls can act as carriers for many years. Bulls are the main source of infection in a herd and are responsible for transmission of infection.

## **What are the clinical signs of vibriosis?**

The initial indication of a vibrio infection in a herd is cows returning to service and low pregnancy rates. Poor conception rates especially in heifers are often seen after the introduction of an infected bull. In newly infected herds conception rates can be as low as 40%. Permanent infertility may occur due to damage to the reproductive tract. In a vibrio outbreak, a high proportion of females may not return to service for 3–5 months. Sporadic abortions can occur commonly 5–7 months into pregnancy. Infected bulls show no obvious signs but can act as long-term carriers; infecting cows and heifers at service. Vibriosis causes significant reproductive losses especially in the first year of infection.

## **How is it diagnosed?**

There are several techniques used to diagnose vibriosis, and your veterinarian can advise on appropriate diagnostic testing procedures.

## **Is there an effective treatment?**

Treatment programs should be discussed with your veterinarian. The program for bulls may include a combination of vaccination and antibiotic treatment.

## **What is the best way to protect cattle from vibriosis?**

Vaccination with Pfizer's Vibrovax<sup>®</sup> is a highly effective method of preventing vibriosis and has proven to be efficacious in the field. The vaccine confers protection against two biotypes of *Campylobacter fetus* subspecies *venerealis* (biotype *venerealis* and biotype *intermedius*).

Bulls are well protected by vaccination and the pregnancy rate of females in infected herds markedly increase following vaccination. Regular vaccination of bulls should be adopted as a routine management practice in all herds where natural breeding is practised.

## **What vaccination programs are recommended?**

The most comprehensive program involves the vaccination of all breeding animals, including all bulls, cows and heifers, with Vibrovax<sup>®</sup>.

**Bulls:** initially all bulls should be given 2, 5mL doses 4–6 weeks apart. Thereafter an annual dose of 5mL each year will confer protection. Regular vaccination of bulls is an important means of controlling the disease. Other control measures include segregation of infected cattle, use of young, clean bulls and culling of empty cows at pregnancy testing.

**Heifers (younger than 18 months):** heifers should be given 2 initial doses of 5mL, 4–6 weeks apart. Vaccination should be timed so that the second dose is given about 6 weeks before the commencement of mating.

**Cows and heifers (older than 18 months):** should be given 1 initial dose of 5mL. Thereafter an annual dose of 2mL or a dose of 5mL every two years provides on-going protection.

Veterinary advice should be sought prior to the implementation of a vaccination program. The vaccine should be administered under the skin high on the neck. Swellings will occur in a percentage of animals (but will gradually disappear) therefore do not administer to bulls or cows prior to showing or sale.