

# VIBRIOSIS AS A CONTRIBUTOR TO REPRODUCTIVE WASTAGE IN A SOUTH AUSTRALIAN BEEF HERD

J.R. GALLAGHER\*

Wiltbank (1972) clearly demonstrated the economic significance of maintaining beef cows which fail to produce live calves. Thus the identification of sources of reproductive wastage and their removal from the herd must be a goal of the herd manager seeking a viable enterprise. This particularly applies to vibriosis.

The aim of this study is to report on the live calving percentages of a South Australian Poll Shorthorn herd over a 30 year period and in particular the fertility of the herd following the 1979 mating when Campylobacter fetus, the organism responsible for vibriosis, was detected in the herd.

Live calving percentages were based on the number of live calves produced each autumn from the natural service mating of an average of 31 breeding cows in the previous winter. The only exception was the use of artificial breeding in 1980. The incidence of vibriosis was based on results from samples of vaginal mucus submitted to IMVS Adelaide by College veterinarians.

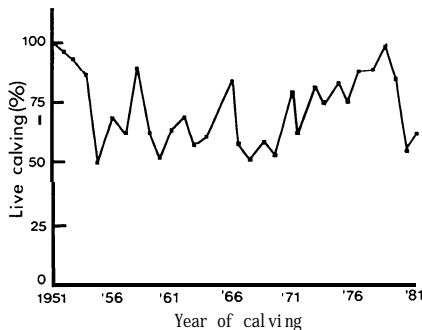


Fig. 1 Live calving percentages during a 30 year period

It is shown in the Fig. 1 that the goal of realising a live calf from each breeding cow was realised in only two years. In two other years only one cow in two produced a live calf. The average calving percentage was 74% for the 30 year period. In a previous report (Gallagher et al. 1978), it was stated that heifer dystocia was a major source of reproductive wastage in the herd. Although vibriosis had not previously been identified it can be implicated in the decline in calving percentage from 85% in 1979 to 56% in 1980 since Campylobacter fetus was recovered from an aborted foetus and subsequently nine of the 31 cows in the herd were found to be positive for that organism. The increase in live calving to 61% in 1981 reflects the benefit of artificial breeding for disease control. It also reflects the immunity that develops to this disease as shown by the successful calving in 1981 of 5 of the nine cows that gave a positive test for the disease in 1980.

It can be concluded that there is a large scope to improve the fertility of individual beef herds. Further, diseases such as vibriosis can rapidly lower fertility. The herd manager's goal of achieving the full reproductive potential of his herd is aided by artificial breeding and the recent development of dual vaccines (Clark et al. 1979) for the prevention of vibriosis.

CLARK, B.L., DUFTY, J.H., MONSBOURGH, M.J. and PARSONSON, I.M. (1979). Aust. Vet. J. **55** : 252.

GALLAGHER, J.R., SUMNER, C.B. and COATES, T.P. (1978). Aust. Soc. Anim. Prod. **12** : 263.

WILTANK, J.N. (1972). Better Beef Business, March, 66.

\*Department of Animal Production, Agricultural College, Roseworthy, S.A. 5371.