Theileriosis, caused by the parasite *Theileria parva*, leads to considerable economic losses in cattle in Burundi, Kenya, Malawi, Mozambique, Rwanda, Sudan, Tanzania, Uganda, Zaire, Zambia and Zimbabwe. These losses have hitherto not been comprehensively quantified. A computer spreadsheet model was used to estimate the losses and the benefits of theileriosis control by the infection and treatment method of immunization in the region. The parameters of the model included national size and structure of cattle herds, the estimated impact of the disease in terms of incidence, case morbility and case fatality rates, and the effect of immunization on the disease. The total regional loss due to theileriosis in 1989 was estimated to be US$ 168 million, which includes as estimated mortality of 1.1 million cattle. Previous economic analysis of immunization showed high economic returns, with a benefit: cost ratio in the range of 9–17. The input values and results presented were derived from calculations using data sources that are inadequate in content and quality, and hence should be interpreted with caution. When adequate data are available, the approach could be used to generate more accurate results for any study site, production system, country and the region as a whole.