

Book review

E. CAMUS, N. BARRÉ, D. MARTÍNEZ & G. UILENBERG. 1996. Heartwater (cowdriosis): a review (2nd edition) *OIE Scientific and Technical Review*, 177 pp. FRF250 or US\$50. ISBN 92-9044-376-6

Heartwater (cowdriosis), a rickettsial disease of ruminants transmitted by ticks of the genus *Amblyomma*, is one of the major obstacles to increased animal production in many parts of Africa. For various reasons, research on heartwater stagnated for a long time: the causal agent, *Cowdria ruminantium*, could not be cultured *in vitro*; neither laboratory animal model nor serological tests were available; diagnosis was not possible before death, and the disease concerned only sub-Saharan Africa, where research facilities and financing were generally limited. Moreover, in many countries the disease was inapparent, as local livestock are usually resistant, and heartwater becomes a problem only when exotic breeds are introduced.

Research on heartwater has progressed considerably since the discovery that certain strains of *C. ruminantium* are pathogenic for laboratory mice (1971), and particularly since the disease was found to occur in the western hemisphere (1980), and the agent was successfully cultured *in vitro* (1985). Knowledge of the disease has increased tremendously over the past ten to 15 years. Although the field situation remains largely unchanged, the steady accumulation of research results should soon lead to breakthroughs in control and diagnosis.

Heartwater was first detected on some Caribbean islands in 1980 (although it had apparently been imported with one of the most prevalent African vector ticks, *Amblyomma variegatum*, in the 18th or 19th century). Subsequent surveys showed that the distribution of this tick in the region had been expanding rapidly since the 1960s; the tick now threatens

to invade the American mainland. Research suggests that the increased prevalence of this tick is due mainly to the African cattle egret, which began to colonize the Caribbean islands in the 1950s.

The *Institut d'Elevage et de Médecine Vétérinaire des Pays Tropicaux* (IEMVT), which is now the animal-production and veterinary-medicine department of the *Centre de Coopération Internationale en Recherche Agronomique pour le Développement* (CIRAD-EMVT), has been active in heartwater research for many years. After heartwater was detected in the Caribbean, a laboratory for research on the disease and its imported vector was created by the IEMVT in Guadeloupe (French West Indies). In 1982, a review of the literature on heartwater was published in French by the IEMVT team in Guadeloupe. An English translation by the Veterinary Research Institute at Onderstepoort (South Africa) was published by the OIE in 1988. A second edition in French was released during the same year, incorporating many new findings from the Guadeloupe laboratory and elsewhere. The present publication is an updated translation of the second French edition, and includes a review of much of the literature and unpublished findings obtained between 1988 and mid-1994.

This book will be of interest to scientists conducting research on heartwater, and to all veterinarians in areas where the disease occurs (sub-Saharan Africa, the Caribbean) or threatens to invade (in particular, the Americas). The book will also provide background information on the international programme for the eradication of the African vector in the Caribbean, which has been under way since 1994.