

Abstract

Presents the Orma Boran field observations carried out under tsetse fly challenge on Galana ranch in Kenya since 1980. Their response to trypanosomiasis has been compared to that of the ranch bred Kenya (Galana) Boran. The mean monthly prevalence of trypanosomiasis observed in Orma steers over five years was 17 percent compared with 31 percent in the Galana Borans. Mean annual mortality over five years was 35 percent in untreated Orma steers compared with 71 percent in untreated Galana steers. The primary difference appeared to be in their response to *Trypanosoma vivax* challenge. Their ability to acquire resistance has also been investigated under field conditions and both acquired and innate resistance appear to play a role. Steers monitored weekly over two years and treated with diminazene aceturate immediately on detection of infection showed some evidence of improved control of anaemia. In contrast, steers treated only when the PCV fell to 15 percent showed little evidence of improved anaemia control over two years. There was strong evidence for an innate component and the repeatabilities of PCV and infection rate were significant between the two years. Orma calves born on Galana ranch and herded together with their Galana counterparts were detected parasitaemic less often and the pre-weaning mortality was 7 percent compared with 17 percent for the Galana calves. The trypanosome prevalence in both groups of calves was lower than that observed over the same period in their dams and the vivax ratio was higher. Orma calves, however, had significantly lower birth & weaning weights than their Galana counterparts.