- 5. Hudson W G B, Gummow B 1997 Perceptions of teenagers about the role of the veterinarian in practice: a cross-cultural study. Journal of the South African Veterinary Association 68: 59–61
- Krecek R C, Guthrie A J 1999 Alternative approaches to control of cyathostomes: an African perspective. Veterinary Parasitology 85: 151–162
- Laflamme D P 1993 Body condition scoring and weight maintenance. In Proceedings of the North American Veterinary Conference, Orlando, Florida, 16–21 January 1993
- 8. Letsoalo S S, Krecek R C, Botha C A J, Ngetu X 2000 Animal husbandry in Moretele 1 of North-West Province: implications for veterinary training and research. *Journal of the South African Veterinary Association* 71: 92–96
- McCrindle C M E (ed.) 1996 Veterinary needs appraisal: Mašhišhing. Report prepared for Medunsa, State Veterinary Services, Civics Association, Environmental Justice Networking Forum, Mpumalanga Parks Board and private veterinarians,

- Lydenburg. Community and Outreach Unit. Medunsa
- McCrindle C M E, Tice G, Mogajane E M, Stewart C G, Mosupi H 1994 An investigation into the potential veterinary needs of a semi-rural, low-income community. *Journal* of the South African Veterinary Association 65: 90–96
- 11. McCrindle C M E, Stewart C G, Kiwanuka A 1996 Methodology to assess animal health needs and extent of activities. *Primary animal health activities in southern Africa. Workshop held in Mzuzu, Malawi, 26 February 8 March 1996.* Deutsche Stiftung für Internationale Entwicklung, Feldafing, Germany: 136–150
- 12. Mc Crindle C M E, Hay I T, Kirkpatrick R D, Odendaal J S J, Calitz E M 1996. A primary health care approach to an outbreak of cutaneous larva migrans. *Journal of the South Africa Veterinary Association* 67: 133–136
- 13. McCrindle C M E, Cornelius S T, Schoeman H S 1997 A survey of animal welfare needs in Soweto. *Journal of the South African Veteri*

- nary Association 68: 137-139
- 14. Mettrick H 1993 Development orientated research in agriculture – an ICRA textbook. International Centre for Development Oriented Research in Agriculture, Wageningen
- Miller T A 1968 Pathogenesis and immunity in hookworm infection. Transactions of the Royal Society of Tropical Medicine and Hygiene 62: 473–485
- Minnaar W N, Krecek R C, Rajput J I 1999
 Helminth parasites of dogs from two resource-limited communities in South
 Africa. Journal of the South African Veterinary
 Association 70: 92–94
- 17. Nelson R W, Couto C G 1998 Small animal internal medicine (2nd edn). Mosby, St Louis
- 18. Odendaal J S J 1998 Applied veterinary ethology of cats, dogs (1st edn). Easi Learn, Pretoria
- 19. Roitt I M 1997 Roitt's essential immunology. Blackwell Science, Oxford
- Tizard I R 1996 Veterinary immunology an introduction (5th edn). W B Saunders, London

Book review — Boekresensie

Tierzucht in den Tropen und Subtropen

[Animal breeding in the tropics and subtropics]

Edited by Peter Horst and Ingeborg Reh

1999. Eugen Ulmer, Stuttgart, 452 pp., hard cover, in German. Price DM 248. ISBN 3800132044.

This is a completely new edition that has been expanded to include production techniques for animals species that are less well known to students, veterinarians, extension officers in community services and agrarian specialists who would like to understand the problems of animal production in the tropics and subtropics.

Twenty-three authors from 6 different parts of the world have contributed. They have with tremendous diligence compiled information on problems of animal production mainly in Africa, but also in Southeast Asia, Malaysia, Indonesia, Australia, India, and South and Central America.

It is estimated that 55 % of sheep, 69 % of cattle, 95 % of goats, and almost all buffaloes and camels are kept in tropical and subtropical regions. There are almost insurmountable problems relating to animal breeding, nutrition and health that face practitioners and scientists when planning systematic animal improvement.

Only by listing the chapters can the amount of work covered by the authors be appreciated: Animal production world-wide; Problems of animal production in the tropics and subtropics; Nutrients and the provision of feed; Animal diseases and control measures; Breeding and production improvement; Production techniques in utility animals (cattle, buffalo, sheep, goats,

equines including donkeys and mules, pigs, poultry, rabbits, guinea-pigs, bees and silk-worms). An important chapter deals with the use of wild-life (antelope, rodents, kangaroos, ostriches and crocodiles). Aquaculture is of great importance in tropical and subtropical areas, and the most important fish species are listed with their production potential. The final chapter is a discussion of the improvement of natural pastures, where the human factor, problems of ownership, climatic and soil conditions are the overriding difficulties facing technology transfer.

The book represents a major contribution to the knowledge of animal production in the tropics and subtropics. The authors and especially the editors went to great lengths to pursue all possible pathways to improvement of production animals for the better nutrition of people in these regions.

It is exceptionally well produced, with good clear illustrations, and is a pleasure to read. It is therefore highly recommended to students, veterinarians and agrarian specialists who would like to gain a better insight into animal production problems in developing countries.

D R Osterhoff Professor Emeritus

Faculty of Veterinary Science
University of Pretoria