## Animal Part 4

### Contents

#### Breeding and genetics

- **R. Behl, J. Behl, N. Gupta and S. C. Gupta**
  Genetic relationships of five Indian horse breeds using microsatellite markers 483

- **A. B. Doeschl-Wilson, P. W. Knap, B. P. Kinghorn and H. A. M. Van der Steen**
  Using mechanistic animal growth models to estimate genetic parameters of biological traits 489

#### Nutrition

- **I. Schei, A. Danfær, I. A. Boman and H. Volden**
  Post-ruminal or intravenous infusions of carbohydrates or amino acids to dairy cows 1. Early lactation 501

- **I. Schei, A. Danfær, L. T. Mydland and H. Volden**
  Post-ruminal or intravenous infusions of carbohydrates or amino acids to dairy cows 2. Late lactation 515

- **Z. Volek, M. Marounek and V. Skřivanová**
  Effect of a starter diet supplementation with mannan-oligosaccharide or inulin on health status, caecal metabolism, digestibility of nutrients and growth of early weaned rabbits 523

  Effects of dietary sulphur sources on concentrations of hydrogen sulphide in the rumen head-space gas of dairy cows 531

- **M. Lourenço, G. Van Ranst, S. De Smet, K. Raes, V. Fievez**
  Effect of grazing pastures with different botanical composition by lambs on rumen fatty acid metabolism and fatty acid pattern of longissimus muscle and subcutaneous fat 537

#### Physiology and functional biology of systems

- **E. Gootwine, T. E. Spencer and F. W. Bazer**
  Litter-size-dependent intrauterine growth restriction in sheep (Review) 547

- **N. C. Friggens and J. H. Badsberg**
  The effect of breed and parity on curves of body condition during lactation estimated using a non-linear Function 565

#### Behaviour, welfare and health

- **K. Horsted and J. E. Hermansen**
  Whole wheat versus mixed layer diet as supplementary feed to layers foraging a sequence of different forage crops 575

#### Farming systems and environment

- **D. Bastianelli, M. Quentin, I. Bouvarel, C. Relandeau, P. Lescoat, M. Picard and S. Tesseraud**
  Early lysine deficiency in young broiler chicks 587

- **M. C. Márquez and P. Ramos**
  Effect of the inclusion of food waste in pig diets on growth performance, carcass and meat quality 595

- **L. A. Sinclair, A. J. Bond, J. A. Huntington and R. J. Readman**
  Effect of rate of substitution of processed, urea-treated whole-crop wheat for grass silage on the intake, milk production and diet digestibility in dairy cows and ruminal metabolism 601

- **T. W. J. Keady, F. O. Lively, D. J. Kilpatrick and B. W. Moss**
  Effects of replacing grass silage with either maize or whole-crop wheat silages on the performance and meat quality of beef cattle offered two levels of concentrates 613
Effect of supplementation of ewes with barley or maize during the last week of pregnancy on colostrum production