Onderstepoort Journal of Veterinary Research, 63:351–358 (1996)

Author index

ONDERSTEPOORT JOURNAL OF VETERINARY RESEARCH

Volume 63, Numbers 1–4, 1996

AITCHISON, H.
Transmission of the South African asinine strain of equine arteritis virus (EAV) among horses and between donkeys and horses—J.T. PAWESKA, H. AITCHISON, E.D. CHIRNSIDE and B.J.H. BARNARD 189–196

BARNARD, B.J.H.
Transmission of the South African asinine strain of equine arteritis virus (EAV) among horses and between donkeys and horses—J.T. PAWESKA, H. AITCHISON, E.D. CHIRNSIDE and B.J.H. BARNARD 189–196

BASSON, A.T.
Photosensitivity in South Africa. IX. Structure elucidation of a β-glucosidase-treated saponin from *Tribulus terrestris*, and the identification of saponin chemotypes of South African *T. terrestris*—A.L. WILKINS, C.O. MILES, W.T. DE KOCK, G.L. ERASMUS, A.T. BASSON and T.S. KELLERMAN 327–334

BASSON, P.A.
The usefulness of faecal phosphorus and nitrogen in interpreting differences in livemass gain and the response to P supplementation in grazing cattle in arid regions—C.C. GRANT, H.C. BIGGS, H.H. MEISSNER and P.A. BASSON 121–126

BENGIS, R.G.
An outbreak of bovine tuberculosis in a free-living African buffalo (*Syncerus caffer*—Sparrman) population in the Kruger National Park: a preliminary report—R.G. BENGIS, N.P.J. KRIEK, D.F. KEET, J.P. RAATH, V. DE VOS and H.F.A.K. HUCHZERMEYER 15–18

BEZUIDENHOUT, A.J.
The osteology of the African elephant (*Loxodonta africana*): vertebral column, ribs and sternum—A.J. BEZUIDENHOUT and C.D. SEEGERS ..... 131—147

Macroscopic blood supply to the hypophysis and hypothalamus of the ostrich (*Struthio camelus*)—M.Z.J. ELIAS, A.J. BEZUIDENHOUT and H.B. GROENEWALD 245–252

BIGGS, H.C.
Demarcation of potentially mineral-deficient areas in central and northern Namibia by means of natural classification systems—C.C. GRANT, H.C. BIGGS and H.H. MEISSNER 109–120

The usefulness of faecal phosphorus and nitrogen in interpreting differences in livemass gain and the response to P supplementation in grazing cattle in arid regions—C.C. GRANT, H.C. BIGGS, H.H. MEISSNER and P.A. BASSON 121–126

BINTA, M.G.
Effect of cyclophosphamide on the acquisition of resistance to infestation by *Rhipicephalus appendiculatus* in rabbits—M.G. BINTA, E.Z. MUSHI and F.R. RURANGIRWA 7–10

Effect of anti-thymocyte serum on acquisition of resistance to infestation by *Rhipicephalus appendiculatus* larvae in rabbits—M.G. BINTA, E.Z. MUSHI and F.R. RURANGIRWA 213–216

BISHOP, G.C.
Brucella melitensis biotype 1 outbreak in goats in northern KwaZulu-Natal—R. REICHEL, J.R. NEL, R. EMSLIE and G.C. BISHOP 183–185

BOOMKER, J.
Parasites of South African wildlife. XIV. Helminths of nyalas (*Tragelaphus angasii*) in the Mkuzi Game Reserve, KwaZulu-Natal—J. BOOMKER, D.G. BOOYSE, R. WATERMEYER, I.L. DE VILLIERS, I.G. HORAK and J.R.B. FLAMAND 265–271

BOOYSE, D.G.
Parasites of South African wildlife. XIV. Helminths of nyalas (*Tragelaphus angasii*) in the Mkuzi Game Reserve, KwaZulu-Natal—J. BOOMKER, D.G. BOOYSE, R. WATERMEYER, I.L. DE VILLIERS, I.G. HORAK and J.R.B. FLAMAND 265–271

BRAACK, L.E.O.
The comparative host status of red veld rats (*Aethomys chrysophilus*) and bushveld gerbils (*Tatera leucogaster*) for epifaunal arthropods in the southern Kruger National Park, South Africa—L.E.O. BRAACK, I.G. HORAK, LEONORA C. JORDAAN, JOYCE SEGERMAN and J.P. LOUW 149–158

BRAGG, R.R.
Changes in the incidences of the different serovars of *Haemophilus paragallinarum* in South Africa: a possible explanation for vaccination failures— R.R. BRAGG, L. COETZEE and J.A. VERSCHOOR 217–226

CHIRNSIDE, E.D.
Transmission of the South African asinine strain of equine arteritis virus (EAV) among horses and between donkeys and horses—J.T. PAWESKA, H. AITCHISON, E.D. CHIRNSIDE and B.J.H. BARNARD 189–196

CLOSE, P.
Immunophenotypic classification of canine malignant lymphoma on formalin-fixed paraffin wax-embedded tissue by means of CD3 and CD79a cell markers—R.J. MILNER, J. PEARSON, J.W. NESBIT and P. CLOSE 309–313

COETZEE, J.
Subcellular localization of the nonstructural protein NS3 of African horsesickness virus—M.A. STOLTZ, C.F. VAN DER MERWE, J. COETZEE and H. HUISMANS 57–61

COETZEE, L.
Pathogenicity differences between South African isolates of *Ornithobacterium rhinotracheale*—A.F. TRAVERS, L. COETZEE and B. GUMMOW 197–207

Changes in the incidences of the different serovars of *Haemophilus paragallinarum* in South Africa: a possible explanation for vaccination failures— R.R. BRAGG, L. COETZEE and J.A. VERSCHOOR 217–226

COETZER, J.A.W.
Distribution of viral antigen in tissues of new-born lambs infected with Rift Valley fever virus—J.J. VAN DER LUGT, J.A.W. COETZER and M.M.E. SMIT 341–347

DE KOCK, W.T.
Photosensitivity in South Africa. IX. Structure elucidation of a β-glucosidase-treated saponin from *Tribulus terrestris*, and the identification of saponin chemotypes of South African *T. terrestris*—A.L. WILKINS, C.O. MILES, W.T. DE KOCK, G.L. ERASMUS, A.T. BASSON and T.S. KELLERMAN 327–334

DE VILLIERS, I.L.
Parasites of South African wildlife. XIV. Helminths of nyalas (*Tragelaphus angasii*) in the Mkuzi Game Reserve, KwaZulu-Natal—J. BOOMKER, D.G. BOOYSE, R. WATERMEYER, I.L. DE VILLIERS, I.G. HORAK and J.R.B. FLAMAND 265–271

DE VOS, V.
The intestine and endocrine pancreas of the African elephant: a histological, immunocytochemical and immunofluorescence study—G. VAN ASWEGEN, SUSAN VAN NOORDEN, SANET H. KOTZE, V. DE VOS and J.H. SCHOEMAN 335–340

DU PREEZ, J.L.
Solid-phase extraction and HPLC determination of levamisole hydrochloride in sheep plasma—J.L. DU PREEZ and A.P. LÖTTER 209–211

EDWARDES, M.
Control of pest blackflies (Diptera: Simuliidae) along the Orange River, South Africa: 1990–1995—R.W. PALMER, M. EDWARDES and E.M. NEVILL 289–304

Culicoides (Diptera: Ceratopogonidae) associated with livestock in the Onderstepoort area, Gauteng, South Africa as determined by light-trap collections—G.J. VENTER, R. MEISWINKEL, E.M. NEVILL and M. EDWARDES 315–325

ELIAS, M.Z.J.
Macroscopic blood supply to the hypophysis and hypothalamus of the ostrich (*Struthio camelus*)—M.Z.J. ELIAS, A.J. BEZUIDENHOUT and H.B. GROENEWALD 245–252

ERASMUS, G.L.
Photosensitivity in South Africa. IX. Structure elucidation of a β-glucosidase-treated saponin from *Tribulus terrestris*, and the identification of saponin chemotypes of South African *T. terrestris*—A.L. WILKINS, C.O. MILES, W.T. DE KOCK, G.L. ERASMUS, A.T. BASSON and T.S. KELLERMAN 327–334

FLAMAND, J.R.B.
Parasites of South African wildlife. XIV. Helminths of nyalas (*Tragelaphus angasii*) in the Mkuzi Game Reserve, KwaZulu-Natal—J. BOOMKER, D.G. BOOYSE, R. WATERMEYER, I.L. DE VILLIERS, I.G. HORAK and J.R.B. FLAMAND 265–271

FOURIE, L.J.
Adult ixodid ticks on two cattle breeds in the south-western Free State, and their seasonal dynamics—L.J. FOURIE, D.J. KOK and HELOISE HEYNE 19–23

Seasonal dynamics of the Karoo paralysis tick (*Ixodes rubicundus*): a comparative study on Merino and Dorper sheep—L.J. FOURIE and D.J. KOK 273–276

FOURIE, N.
The distribution, diagnoses and estimated economic impact of plant poisonings and mycotoxicoses in South Africa—T.S. KELLERMAN, T.W. NAUDÉ and N. FOURIE 65–90

GARTHWAITE, I.
First report of field outbreaks of ergot-alkaloid toxicity in South Africa—D.J. SCHNEIDER, C.O. MILES, I. GARTHWAITE, A. VAN HALDEREN, J.C. WESSELS and H.J. LATEGAN 97–108

GIBBONS, L.M.
Redescriptions of *Dichelyne (Dichelyne) rasheedae* Petter, 1974 and *Spirocamallanus olseni* Campana-Rouget & Razarihelissoa, 1965, recorded for the first time from fish in Lake St. Lucia, South Africa—L.M. GIBBONS and J.E. SAAYMAN 39–46

GRANT, C.C.
Demarcation of potentially mineral-deficient areas in central and northern Namibia by means of natural classification systems—C.C. GRANT, H.C. BIGGS and H.H. MEISSNER 109–120

The usefulness of faecal phosphorus and nitrogen in interpreting differences in livemass gain and the response to P supplementation in grazing cattle in arid regions—C.C. GRANT, H.C. BIGGS, H.H. MEISSNER and P.A. BASSON 121–126

GROENEWALD, H.B.
Macroscopic blood supply to the hypophysis and hypothalamus of the ostrich (*Struthio camelus*)—M.Z.J. ELIAS, A.J. BEZUIDENHOUT and H.B. GROENEWALD 245–252

GUMMOW, B.
Pathogenicity differences between South African isolates of *Ornithobacterium rhinotracheale*—A.F. TRAVERS, L. COETZEE and B. GUMMOW 197–207

Experimentally induced chronic copper toxicity in cattle—B. GUMMOW 277–288

HAHEMBE, E.
Brucellosis surveillance and control in Zimbabwe: Bacteriological and serological investigation in dairy herd—K. MOHAN, P.V. MAKAYA, P. MUVAVARIRWA, G. MATOPE, E. HAHEMBE and A. PAWANDIWA 47–51

HEYNE, HELOISE
Adult ixodid ticks on two cattle breeds in the south-western Free State, and their seasonal dynamics—L.J. FOURIE, D.J. KOK and HELOISE HEYNE 19–23

HILL, F.W.G.
Biochemical and haematological values in abattoir pigs with and without sub-clinical lesions—M.O. MAKINDE, A.A. MAJOK and F.W.G. HILL 11–14

HORAK, I.G.
The comparative host status of red veld rats (*Aethomys chrysophilus*) and bushveld gerbils (*Tatera leucogaster*) for epifaunal arthropods in the southern Kruger National Park, South Africa—L.E.O. BRAACK, I.G. HORAK, LEONORA C. JORDAAN, JOYCE SEGERMAN and J.P. LOUW 149–158

Parasites of South African wildlife. XIV. Helminths of nyalas (*Tragelaphus angasii*) in the Mkuzi Game Reserve, KwaZulu-Natal—J. BOOMKER, D.G. BOOYSE, R. WATERMEYER, I.L. DE VILLIERS, I.G. HORAK and J.R.B. FLAMAND 265–271

Spatial and temporal variations in the commencement of seasonal activity in the Karoo paralysis tick, *Ixodes rubicundus*—L.J. FOURIE, I.G. HORAK and D.J. KOK 305–308

HUCHZERMEYER, F.W.
Host range, survival in dead hosts, cryopreservation, periodicity and morphology of *Plasmodium durae* Herman in experimental infections—F.W. HUCHZERMEYER 227–238

HUCHZERMEYER, H.
Tuberculosis in buffaloes (*Syncerus caffer*) in the Kruger National Park: spread of the disease to other species—D.F. KEET, N.P.J. KRIEK, M.-L. PENRITH, A. MICHEL and H. HUCHZERMEYER 239–244

HUCHZERMEYER, H.F.A.K.
An outbreak of bovine tuberculosis in a free-living African buffalo (*Syncerus caffer*—Sparrman) population in the Kruger National Park: a preliminary report—R.G. BENGIS, N.P.J. KRIEK, D.F. KEET, J.P. RAATH, V. DE VOS and H.F.A.K. HUCHZERMEYER 15–18

HUISMANS, H.
Subcellular localization of the nonstructural protein NS3 of African horsesickness virus—M.A. STOLTZ, C.F. VAN DER MERWE, J. COETZEE and H. HUISMANS 57–61

JORDAAN, LEONORA C.
The comparative host status of red veld rats (*Aethomys chrysophilus*) and bushveld gerbils (*Tatera leucogaster*) for epifaunal arthropods in the southern Kruger National Park, South Africa—L.E.O. BRAACK, I.G. HORAK, LEONORA C. JORDAAN, JOYCE SEGERMAN and J.P. LOUW 149–158

JOSHUA, R.A.
Heterophile antibodies to chicken erythrocytes in sheep infected with *Trypanosoma congolense*—R.A. JOSHUA, J.S. NEILS and L.A. OLADOSU 253–258

KAFUWA, P.T.
Field observations on the duration of immunity in cattle after vaccination against *Anaplasma* and *Babesia* species—K. TJORNEHOJ, J.A. LAWRENCE, A.P. WHITELAND and P.T. KAFUWA 1–5

Improving the specificity of indirect immunofluorescence for the serological diagnosis of bovine anaplasmosis—J.A. LAWRENCE, A.P. WHITELAND, P.T. KAFUWA and L.M. NJUGUNA 53–55

KAGARUKI, L.K.
The efficacy of amitraz against cattle ticks in Tanzania—L.K. KAGARUKI 91–96

KEET, D.F.
An outbreak of bovine tuberculosis in a free-living African buffalo (*Syncerus caffer*—Sparrman) population in the Kruger National Park: a preliminary report—R.G. BENGIS, N.P.J. KRIEK, D.F. KEET, J.P. RAATH, V. DE VOS and H.F.A.K. HUCHZERMEYER 15–18

Tuberculosis in buffaloes (*Syncerus caffer*) in the Kruger National Park: spread of the disease to other species—D.F. KEET, N.P.J. KRIEK, M.-L. PENRITH, A. MICHEL and H. HUCHZERMEYER 239–244

KELLERMAN, T.S.
The distribution, diagnoses and estimated economic impact of plant poisonings and mycotoxicoses in South Africa—T.S. KELLERMAN, T.W. NAUDÉ and N. FOURIE 65–90

Photosensitivity in South Africa. IX. Structure elucidation of a β-glucosidase-treated saponin from *Tribulus terrestris*, and the identification of saponin chemotypes of South African *T. terrestris*—A.L. WILKINS, C.O. MILES, W.T. DE KOCK, G.L. ERASMUS, A.T. BASSON and T.S. KELLERMAN 327–334

KOK, D.J.
Adult ixodid ticks on two cattle breeds in the south-western Free State, and their seasonal dynamics—L.J. FOURIE, D.J. KOK and HELOISE HEYNE 19–23

Seasonal dynamics of the Karoo paralysis tick (*Ixodes rubicundus*): a comparative study on Merino and Dorper sheep—L.J. FOURIE and D.J. KOK 273–276

Spatial and temporal variations in the commencement of seasonal activity in the Karoo paralysis tick, *Ixodes rubicundus*—L.J. FOURIE, I.G. HORAK and D.J. KOK 305–308

KOTZE, SANET H.
The intestine and endocrine pancreas of the African elephant: a histological, immunocytochemical and immunofluorescence study—G. VAN ASWEGEN, SUSAN VAN NOORDEN, SANET H. KOTZE, V. DE VOS and J.H. SCHOEMAN 335–340

KRIEK, N.P.J.
An outbreak of bovine tuberculosis in a free-living African buffalo (*Syncerus caffer*—Sparrman) population in the Kruger National Park: a preliminary report—R.G. BENGIS, N.P.J. KRIEK, D.F. KEET, J.P. RAATH, V. DE VOS and H.F.A.K. HUCHZERMEYER 15–18

Tuberculosis in buffaloes (*Syncerus caffer*) in the Kruger National Park: spread of the disease to other species—D.F. KEET, N.P.J. KRIEK, M.-L. PENRITH, A. MICHEL and H. HUCHZERMEYER 239–244

LATEGAN, H.J.
First report of field outbreaks of ergot-alkaloid toxicity in South Africa—D.J. SCHNEIDER, C.O. MILES, I. GARTHWAITE, A. VAN HALDEREN, J.C. WESSELS and H.J. LATEGAN 97–108

LAWRENCE, J.A.
Field observations on the duration of immunity in cattle after vaccination against *Anaplasma* and *Babesia* species—K. TJORNEHOJ, J.A. LAWRENCE, A.P. WHITELAND and P.T. KAFUWA 1–5

Improving the specificity of indirect immunofluorescence for the serological diagnosis of bovine anaplasmosis—J.A. LAWRENCE, A.P. WHITELAND, P.T. KAFUWA and L.M. NJUGUNA 53–55

LÖTTER, A.P.
Solid-phase extraction and HPLC determination of levamisole hydrochloride in sheep plasma—J.L. DU PREEZ and A.P. LÖTTER 209–211

LOUW, J.P.
The comparative host status of red veld rats (*Aethomys chrysophilus*) and bushveld gerbils (*Tatera leucogaster*) for epifaunal arthropods in the southern Kruger National Park, South Africa—L.E.O. BRAACK, I.G. HORAK, LEONORA C. JORDAAN, JOYCE SEGERMAN and J.P. LOUW 149–158

MAJOK, A.A.
Biochemical and haematological values in abattoir pigs with and without sub-clinical lesions—M.O. MAKINDE, A.A. MAJOK and F.W.G. HILL 11–14

MAKAYA, P.V.
Brucellosis surveillance and control in Zimbabwe: Bacteriological and serological investigation in dairy herd—K. MOHAN, P.V. MAKAYA, P. MUVAVARIRWA, G. MATOPE, E. HAHEMBE and A. PAWANDIWA 47–51

MAKINDE, M.O. Biochemical and haematological values in abattoir pigs with and without sub-clinical lesions—M.O. MAKINDE, A.A. MAJOK and F.W.G. HILL 11–14

MALAN, F.S.
Cryopreservation of sheathed third-stage larvae of *Ancylostoma caninum* (hookworm of dogs) and Ancylostoma tubaeforme (hookworm of cats)— G.A.P. TITOY and F.S. MALAN 181

MATOPE, G.
Brucellosis surveillance and control in Zimbabwe: Bacteriological and serological investigation in dairy herd—K. MOHAN, P.V. MAKAYA, P. MUVAVARIRWA, G. MATOPE, E. HAHEMBE and A. PAWANDIWA 47–51

MEISSNER, H.H.
Demarcation of potentially mineral-deficient areas in central and northern Namibia by means of natural classification systems—C.C. GRANT, H.C. BIGGS and H.H. MEISSNER 109–120

The usefulness of faecal phosphorus and nitrogen in interpreting differences in livemass gain and the response to P supplementation in grazing cattle in arid regions—C.C. GRANT, H.C. BIGGS, H.H. MEISSNER and P.A. BASSON 121–126

MEISWINKEL, R.
Culicoides (Diptera: Ceratopogonidae) associated with livestock in the Onderstepoort area, Gauteng, South Africa as determined by light-trap collections—G.J. VENTER, R. MEISWINKEL, E.M. NEVILL and M. EDWARDES 315–325

MICHEL, A.
Tuberculosis in buffaloes (*Syncerus caffer*) in the Kruger National Park: spread of the disease to other species—D.F. KEET, N.P.J. KRIEK, M.-L. PENRITH, A. MICHEL and H. HUCHZERMEYER 239–244

MILES, C.O.
First report of field outbreaks of ergot-alkaloid toxicity in South Africa—D.J. SCHNEIDER, C.O. MILES, I. GARTHWAITE, A. VAN HALDEREN, J.C. WESSELS and H.J. LATEGAN 97–108

Photosensitivity in South Africa. IX. Structure elucidation of a β-glucosidase-treated saponin from *Tribulus terrestris*, and the identification of saponin chemotypes of South African *T. terrestris*—A.L. WILKINS, C.O. MILES, W.T. DE KOCK, G.L. ERASMUS, A.T. BASSON and T.S. KELLERMAN 327–334

MILNER, R.J.
Immunophenotypic classification of canine malignant lymphoma on formalin-fixed paraffin wax-embedded tissue by means of CD3 and CD79a cell markers—R.J. MILNER, J. PEARSON, J.W. NESBIT and P. CLOSE 309–313

MOHAN, K.
Brucellosis surveillance and control in Zimbabwe: Bacteriological and serological investigation in dairy herd—K. MOHAN, P.V. MAKAYA, P. MUVAVARIRWA, G. MATOPE, E. HAHEMBE and A. PAWANDIWA 47–51

MUSHI, E.Z.
Effect of cyclophosphamide on the acquisition of resistance to infestation by *Rhipicephalus appendiculatus* in rabbits—M.G. BINTA, E.Z. MUSHI and F.R. RURANGIRWA 7–10

Effect of anti-thymocyte serum on acquisition of resistance to infestation by *Rhipicephalus appendiculatus* larvae in rabbits—M.G. BINTA, E.Z. MUSHI and F.R. RURANGIRWA 213–216

MUVAVARIRWA, P.
Brucellosis surveillance and control in Zimbabwe: Bacteriological and serological investigation in dairy herd—K. MOHAN, P.V. MAKAYA, P. MUVAVARIRWA, G. MATOPE, E. HAHEMBE and A. PAWANDIWA 47–51

NAUDÉ, T.W.
The distribution, diagnoses and estimated economic impact of plant poisonings and mycotoxicoses in South Africa—T.S. KELLERMAN, T.W. NAUDÉ and N. FOURIE 65–90

NEILS, J.S.
Heterophile antibodies to chicken erythrocytes in sheep infected with *Trypanosoma congolense*—R.A. JOSHUA, J.S. NEILS and L.A. OLADOSU 253–258

NEL, J.R.
Brucella melitensis biotype 1 outbreak in goats in northern KwaZulu-Natal—R. REICHEL, J.R. NEL, R. EMSLIE and G.C. BISHOP 183–185

NESBIT, J.W.
Immunophenotypic classification of canine malignant lymphoma on formalin-fixed paraffin wax-embedded tissue by means of CD3 and CD79a cell markers—R.J. MILNER, J. PEARSON, J.W. NESBIT and P. CLOSE 309–313

NEVILL, E.M.
Control of pest blackflies (Diptera: Simuliidae) along the Orange River, South Africa: 1990–1995—R.W. PALMER, M. EDWARDES and E.M. NEVILL 289–304

Geographical distribution and relative abundance of stock-associated *Culicoides* species (Diptera: Ceratopogonidae) in southern Africa, in relation to their potential as viral vectors—G.J. VENTER, E.M. NEVILL and T.C. DE K. VAN DER LINDE 25–38

Culicoides (Diptera: Ceratopogonidae) associated with livestock in the Onderstepoort area, Gauteng, South Africa as determined by light-trap collections—G.J. VENTER, R. MEISWINKEL, E.M. NEVILL and M. EDWARDES 315–325

NJUGUNA, L.M.
Improving the specificity of indirect immunofluorescence for the serological diagnosis of bovine anaplasmosis—J.A. LAWRENCE, A.P. WHITELAND, P.T. KAFUWA and L.M. NJUGUNA 53–55

OLADOSU, L.A.
Heterophile antibodies to chicken erythrocytes in sheep infected with *Trypanosoma congolense*—R.A. JOSHUA, J.S. NEILS and L.A. OLADOSU 253–258

PALMER, R.W.
Control of pest blackflies (Diptera: Simuliidae) along the Orange River, South Africa: 1990–1995—R.W. PALMER, M. EDWARDES and E.M. NEVILL 289–304

PAWANDIWA, A.
Brucellosis surveillance and control in Zimbabwe: Bacteriological and serological investigation in dairy herd—K. MOHAN, P.V. MAKAYA, P. MUVAVARIRWA, G. MATOPE, E. HAHEMBE and A. PAWANDIWA 47–51

PAWESKA, J.T.
Transmission of the South African asinine strain of equine arteritis virus (EAV) among horses and between donkeys and horses—J.T. PAWESKA, H. AITCHISON, E.D. CHIRNSIDE and B.J.H. BARNARD 189–196

PEARSON, J.
Immunophenotypic classification of canine malignant lymphoma on formalin-fixed paraffin wax-embedded tissue by means of CD3 and CD79a cell markers—R.J. MILNER, J. PEARSON, J.W. NESBIT and P. CLOSE 309–313

PENRITH, MARY-LOUISE
Selenium toxicosis with focal symmetrical poliomyelomalacia in postweaning pigs in South Africa—MARY-LOUISE PENRITH and J.T.R. ROBINSON 171–179

RAATH, J.P.
An outbreak of bovine tuberculosis in a free-living African buffalo (*Syncerus caffer*—Sparrman) population in the Kruger National Park: a preliminary report—R.G. BENGIS, N.P.J. KRIEK, D.F. KEET, J.P. RAATH, V. DE VOS and H.F.A.K. HUCHZERMEYER 15–18

REICHEL, R.
Brucella melitensis biotype 1 outbreak in goats in northern KwaZulu-Natal—R. REICHEL, J.R. NEL, R. EMSLIE and G.C. BISHOP 183–85

ROBINSON, J.T.R.
Selenium toxicosis with focal symmetrical poliomyelomalacia in postweaning pigs in South Africa—MARY-LOUISE PENRITH and J.T.R. ROBINSON 171–179

RURANGIRWA, F.R.
Effect of cyclophosphamide on the acquisition of resistance to infestation by *Rhipicephalus appendiculatus* in rabbits—M.G. BINTA, E.Z. MUSHI and F.R. RURANGIRWA 7–10

Effect of anti-thymocyte serum on acquisition of resistance to infestation by *Rhipicephalus appendiculatus* larvae in rabbits—M.G. BINTA, E.Z. MUSHI and F.R. RURANGIRWA 213–216

SAAYMAN, J.E.
Redescriptions of *Dichelyne (Dichelyne) rasheedae* Petter, 1974 and *Spirocamallanus olseni* Campana-Rouget & Razarihelissoa, 1965, recorded for the first time from fish in Lake St. Lucia, South Africa—L.M. GIBBONS and J.E. SAAYMAN 39–46

SCHNEIDER, D.J.
First report of field outbreaks of ergot-alkaloid toxicity in South Africa—D.J. SCHNEIDER, C.O. MILES, I. GARTHWAITE, A. VAN HALDEREN, J.C. WESSELS and H.J. LATEGAN 97–108

SCHOEMAN, J.H.
The intestine and endocrine pancreas of the African elephant: a histological, immunocytochemical and immunofluorescence study—G. VAN ASWEGEN, SUSAN VAN NOORDEN, SANET H. KOTZE, V. DE VOS and J.H. SCHOEMAN 335–340

SEEGERS, C.D.
The osteology of the African elephant (*Loxodonta africana*): vertebral column, ribs and sternum—A.J. BEZUIDENHOUT and C.D. SEEGERS ..... 131—147

SEGERMAN, JOYCE
The comparative host status of red veld rats *(Aethomys* chrysophilus) and bushveld gerbils (*Tatera leucogaster*) for epifaunal arthropods in the southern Kruger National Park, South Africa—L.E.O. BRAACK, I.G. HORAK, LEONORA C. JORDAAN, JOYCE SEGERMAN and J.P. LOUW 149–158

SMIT, M.M.E.
Distribution of viral antigen in tissues of new-born lambs infected with Rift Valley fever virus—J.J. VAN DER LUGT, J.A.W. COETZER and M.M.E. SMIT 341–347

STOLTZ, M.A.
Subcellular localization of the nonstructural protein NS3 of African horsesickness virus—M.A. STOLTZ, C.F. VAN DER MERWE, J. COETZEE and H. HUISMANS 57–61

TITOY, G.A.P.
Cryopreservation of sheathed third-stage larvae of *Nematodirus spathiger*—G.A.P. TITOY 63

Cryopreservation of sheathed third-stage larvae of *Ancylostoma caninum* (hookworm of dogs) and Ancylostoma tubaeforme (hookworm of cats)— G.A.P. TITOY and F.S. MALAN 181

Radiolabelled adult *Haemonchus contortus* obtained from eggs voided in the faeces of a sheep injected with ^{59}Fe—J.A. VAN WYK and G.A.P. TITOY 263–264

TJORNEHOJ, K.
Field observations on the duration of immunity in cattle after vaccination against *Anaplasma* and *Babesia* species—K. TJORNEHOJ, J.A. LAWRENCE, A.P. WHITELAND and P.T. KAFUWA 1–5

TRAVERS, A.F.
Pathogenicity differences between South African isolates of *Ornithobacterium rhinotracheale*—A.F. TRAVERS, L. COETZEE and B. GUMMOW 197–207

VAN AARDE, M.N.
Screening of the venoms of two *Parabuthus* scorpion species on isolated cardiomyocytes—M.N. VAN AARDE, J.M. VAN ROOYEN and G. VAN ASWEGEN 127–130

VAN ASWEGEN, G.
Screening of the venoms of two *Parabuthus* scorpion species on isolated cardiomyocytes—M.N. VAN AARDE, J.M. VAN ROOYEN and G. VAN ASWEGEN 127–130

The intestine and endocrine pancreas of the African elephant: a histological, immunocytochemical and immunofluorescence study—G. VAN ASWEGEN, SUSAN VAN NOORDEN, SANET H. KOTZE, V. DE VOS and J.H. SCHOEMAN 335–340

VAN DER LINDE, T.C. DE K.
Geographical distribution and relative abundance of stock-associated *Culicoides* species (Diptera: Ceratopogonidae) in southern Africa, in relation to their potential as viral vectors—G.J. VENTER, E.M. NEVILL and T.C. DE K. VAN DER LINDE 25–38

VAN DER LUGT, J.J.
Distribution of viral antigen in tissues of new-born lambs infected with Rift Valley fever virus—J.J. VAN DER LUGT, J.A.W. COETZER and M.M.E. SMIT 341–347

VAN DER MERWE, C.F.
Subcellular localization of the nonstructural protein NS3 of African horsesickness virus—M.A. STOLTZ, C.F. VAN DER MERWE, J. COETZEE and H. HUISMANS 57–61

VAN HALDEREN, A.
First report of field outbreaks of ergot-alkaloid toxicity in South Africa—D.J. SCHNEIDER, C.O. MILES, I. GARTHWAITE, A. VAN HALDEREN, J.C. WESSELS and H.J. LATEGAN 97–108

VAN NIEKERK, C.J.
In vitro cultivation of *Babesia occultans*— C.J. VAN NIEKERK and E. ZWEYGARTH 259–261

VAN NOORDEN, SUSAN
The intestine and endocrine pancreas of the African elephant: a histological, immunocytochemical and immunofluorescence study—G. VAN ASWEGEN, SUSAN VAN NOORDEN, SANET H. KOTZE, V. DE VOS and J.H. SCHOEMAN 335–340

VAN ROOYEN, J.M.
Screening of the venoms of two *Parabuthus* scorpion species on isolated cardiomyocytes—M.N. VAN AARDE, J.M. VAN ROOYEN and G. VAN ASWEGEN 127–130

VAN WYK, J.A.
Radiolabelled adult *Haemonchus contortus* obtained from eggs voided in the faeces of a sheep injected with ^{59}Fe—J.A. VAN WYK and G.A.P. TITOY 263–264

VENTER, G.J.
Geographical distribution and relative abundance of stock-associated *Culicoides* species (Diptera: Ceratopogonidae) in southern Africa, in relation to their potential as viral vectors—G.J. VENTER, E.M. NEVILL and T.C. DE K. VAN DER LINDE 25–38

Culicoides (Diptera: Ceratopogonidae) associated with livestock in the Onderstepoort area, Gauteng, South Africa as determined by light-trap collections—G.J. VENTER, R. MEISWINKEL, E.M. NEVILL and M. EDWARDES 315–325

VERSCHOOR, J.A.
Changes in the incidences of the different serovars of *Haemophilus paragallinarum* in South Africa: a possible explanation for vaccination failures—R.R. BRAGG, L. COETZEE and J.A. VERSCHOOR 217–226

VOS, V. DE
An outbreak of bovine tuberculosis in a free-living African buffalo (*Syncerus caffer*—Sparrman) population in the Kruger National Park: a preliminary report—R.G. BENGIS, N.P.J. KRIEK, D.F. KEET, J.P. RAATH, V. DE VOS and H.F.A.K. HUCHZERMEYER 15–18

WATERMEYER, R.
Parasites of South African wildlife. XIV. Helminths of nyalas (*Tragelaphus angasii*) in the Mkuzi Game Reserve, KwaZulu-Natal—J. BOOMKER, D.G. BOOYSE, R. WATERMEYER, I.L. DE VILLIERS, I.G. HORAK and J.R.B. FLAMAND 265–271

WESSELS, J.C.
First report of field outbreaks of ergot-alkaloid toxicity in South Africa—D.J. SCHNEIDER, C.O. MILES, I. GARTHWAITE, A. VAN HALDEREN, J.C. WESSELS and H.J. LATEGAN 97–108

WHITELAND, A.P.
Field observations on the duration of immunity in cattle after vaccination against *Anaplasma* and *Babesia* species—K. TJORNEHOJ, J.A. LAWRENCE, A.P. WHITELAND and P.T. KAFUWA 1–5

Improving the specificity of indirect immunofluorescence for the serological diagnosis of bovine anaplasmosis—J.A. LAWRENCE, A.P. WHITELAND, P.T. KAFUWA and L.M. NJUGUNA 53–55

WILKINS, A.L.
Photosensitivity in South Africa. IX. Structure elucidation of a β-glucosidase-treated saponin from *Tribulus terrestris*, and the identification of saponin chemotypes of South African *T. terrestris*—A.L. WILKINS, C.O. MILES, W.T. DE KOCK, G.L. ERASMUS, A.T. BASSON and T.S. KELLERMAN 327–334

YUNKER, CONRAD E.
Heartwater in sheep and goats: a review—CONRAD E. YUNKER 159–170

ZWEYGARTH, E.
In vitro cultivation of *Babesia occultans*— C.J. VAN NIEKERK and E. ZWEYGARTH 259–261