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DRIVING LICENCE

Driving Licence: B

LANGUAGE SKILLS

Mother tongue(s):

English

Other language(s):

Afrikaans

LISTENING C2 READING C2 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Czech

LISTENING A1 READING A1 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

DIGITAL SKILLS

Microsoft Office / Microsoft Excel / Microsoft Word / Outlook / Google Docs / Social Media / Microsoft Powerpoint / Instagram / Facebook / Zoom / Google Drive / Skype / LinkedIn / Internet user / WhatsApp / Power Point

EDUCATION AND TRAINING

doc. (habilitation)

Czech University of Life Sciences Prague [2021]

Address: Kamýcká 129, 16500 Praha-Suchdol (Czechia)

<https://www.czu.cz/en>

Field(s) of study: Tropical Agriculture and Ecology

Thesis: Strategies to mitigate meat production issues associated with male animals

Ph.D.

Stellenbosch University [01/2015 – 31/12/2017]

Address: Merriman Avenue Howard Place, 7602 Stellenbosch (South Africa)

<http://www.sun.ac.za/english>

Field(s) of study: Animal Sciences

Thesis: Immunocastration and its application in rams

B.Sc.

Stellenbosch University [01/2009 – 11/2012]

Address: Merriman Avenue Howard Place, 7602 Stellenbosch (South Africa)

<http://www.sun.ac.za/english>

Field(s) of study: Animal Sciences

Final grade : cum laude

M.Sc.

Stellenbosch University [01/2013 – 31/12/2014]

Address: Merriman Avenue, 7602 Stellenbosch (South Africa)

<http://www.sun.ac.za/english>

Field(s) of study: Animal Sciences

Final grade : cum laude

WORK EXPERIENCE

Postdoctoral Researcher

Czech University of Life Science Prague [01/09/2018 – Current]

City: Prague

Country: Czechia

Research into the animal husbandry, behaviour and meat quality of ungulates, with a focus on common eland antelope and fallow deer. Guarantee for Animal Production in Tropics (M.Sc.) and Advanced Techniques in Animal Science (Ph.D.), and assistance with teaching within Introduction into Animal Husbandry (B.Sc.), Tropical Bovids Husbandry Guidelines (M.Sc.), Processing and Interpretation of Biological Data (M.Sc.), Practical Animal Handling, Sampling and Processing (M.Sc.). Supervision of M.Sc. students, and co-supervision of Ph.D. students within the Animal Physiology and Behaviour Research Team.

Postdoctoral Researcher

Stellenbosch University [01/03/2018 – 01/06/2018]

City: Stellenbosch

Country: South Africa

Writing and publication of research in impacted journals, assistance with postgraduate student projects, and mentoring of postgraduate students.

Assistant lecturer

Stellenbosch University [01/01/2015 – 31/12/2015]

City: Stellenbosch

Country: South Africa

Teaching Animal Production and Animal Science (B.Sc.) and co-ordination of practical training.

Tutor

Stellenbosch University [01/01/2013 – 31/12/2017]

City: Stellenbosch

Country: South Africa

Assistance and co-ordination of practical activities, excursions, feed formulation software training, and evaluation of tutorials for Meat Science, Animal Breeding and Genetics, and Monogastric Nutrition (B.Sc.).

Internship

Fairview Goat Dairy [03/2012 – 04/2012]

City: Paarl

Country: South Africa

Animal husbandry and health maintenance.

Volunteer

New Hampshire Rescue & Rehabilitation Center [06/2008 – 08/2008]

City: Cintsa East

Country: South Africa

Animal husbandry, training and health care. Assistance in guided horse riding tours.

Volunteer

Bambelala Wildlife Care And Vervet Monkey Rehabilitation [04/2008 – 05/2008]

City: Bela-Bela

Country: South Africa

Animal husbandry and health maintenance.

Fashion model

Max Models [2005 – 2008]

City: Cape Town

Country: South Africa

Promotions demonstrator

Red Rooster & Top Promotions [01/2008 – 12/2008]

City: Cape Town

Country: South Africa

EDUCATIONAL ACTIVITIES

Supervision

Stellenbosch University, South Africa (2018-2019)

- One graduated M.Sc. student

Czech University of Life Sciences Prague (2018-current)

- Two M.Sc. graduated students
- Three current M.Sc. students
- Four current Ph.D. students

Lecturing Activities

Stellenbosch University, South Africa (2013-2018)

- Assistant lecturer for Animal Production, Animal Science
- Tutor for Meat Science, Animal Breeding and Genetics, and Monogastric Nutrition (B.Sc. subjects)

Czech University of Life Sciences Prague (2018-current)

- Guarantee for Animal Production in Tropics (M.Sc.) and Advanced Techniques in Animal Science (Ph.D.)
- Teaching topics within Introduction into Animal Husbandry (B.Sc.), Tropical Bovids Husbandry Guidelines (M.Sc.), Processing and Interpretation of Biological Data (M.Sc.), Practical Animal Handling, Sampling and Processing (M.Sc.)

INVOLVEMENT IN THE SCIENTIFIC COMMUNITY

Scientific Societies Memberships

[2021]

European Federation of Animal Science, South African Society for Animal Sciences, American Meat Science Association.

Requested Reviewer

Journal of Animal Science, South African Journal of Animal Science, Afrika Focus, Foods, Czech Journal of Animal Science.

PROJECT INVOLVEMENT

Physiology and behavior of wild and domestic tropical ungulates (IGA20205005) Czech University of Life Sciences - IGA - CZECH REPUBLIC

[2020]

Physiology and behavior of wild and domestic tropical ungulates (IGA20195011) Czech University of Life Sciences - IGA - CZECH REPUBLIC.

[2019]

Processing of game meat Wildlife Ranching – WRSA - SOUTH AFRICA

[2018]

SARChI Chair Meat Science: Genomics to Nutrinomics (UID: 84633) National Research Foundation – NRF – SOUTH AFRICA

[2018 – 2022]

The effects of immunocastration on the carcass quality and nutrient responses of growing pigs (*Sus scrofa domesticus*) South African Pork Producers Association - SAPPO – SOUTH AFRICA

[2014]

INTERNATIONAL EXPERIENCE AND COLLABORATIONS

Queensland University / Australia

[2019 – Current]

Collaboration with Prof Louw Hoffman on the meat quality and processing of African antelope species.

University of Pretoria / South Africa

[2019 – Current]

Collaboration with Prof Andre Ganswindt for faecal metabolite monitoring. Performed a short-duration stay in Pretoria for training at the Endocrine Research Laboratory, Mammal Research Institute.

Wageningen University / Netherlands

[03/2014 – 05/2014]

SKILLS scholarship to complete M.Sc. course on metabolic modelling.

Université d'Angers

[08/12/2019 – 13/12/2019]

Erasmus + short-duration stay for training at UFR Sciences.

SCIENTOMETRIC PARAMETERS

h-index (Web of Science) 6

43 citations without auto-citations (Web of Science)

24 publications in Impacted Journals

13+ contributions in Scientific Conferences

5 Popular Articles and Book Chapters

PUBLICATIONS

Habituation of common eland (*Taurotragus oryx*) to intensive routine handling, and the effect of immunocastration thereon.

[2021]

<https://doi.org/10.1016/j.applanim.2021.105294>

Musa, A. S., **Needham, T.**, Neradilova, S., Kotrba, R., Ganswindt, A. & Ceacero, F. Applied Animal Behaviour Science. 237, 105294.

Histochemical characterisation of high-value beef muscles from different breeds, and its relation to tenderness.

[2021]

<https://doi.org/10.1016/j.livsci.2021.104468>

Lebedová, N., Bureš, D., **Needham, T.**, Čítek, J., Dlubalová, Z., Stupka, R. & Bartoň, L. Livestock Science. 247, 104468.

Sensory Characteristics of Male Impala (*Aepyceros melampus*) Meat, Produced under Varying Production Systems and Nutrition.

[2021]

<https://doi.org/10.3390/foods10030619>

Needham, T., Engels, R.A. & Hoffman, L.C. Foods. 10, 619.

Combined Effect of Dietary Protein, Ractopamine, and Immunocastration on Boar Taint Compounds, and Using Testicle Parameters as an Indicator of Success.

[2020]

<https://doi.org/10.3390/foods9111665>

Needham, T., Gous, R., Pieterse, E., Lambrechts, H. & Hoffman, L. C. *Foods*. 9, 1665.

Correlations between PORCUS classification and androstenone in boars, and effects of cooking methods thereon.

[2020]

http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0375-15892020000100013

Needham, T., van Zyl, K. & Hoffman, L. 2020. *S. Afr. J. Anim. Sci.* 50, 120-128.

Carcass yields and physiochemical meat quality of semi-extensive and intensively farmed impala (*Aepyceros melampus*).

[2020]

<https://doi.org/10.3390/foods9040418>

Needham, T., Engels, R., Bureš, D., Kotrba, R., Janse van Rensburg, B. & Hoffman L. *Foods*. 9, 418.

Physical Changes during Post-Mortem Ageing of High-Value Impala (*Aepyceros Melampus*) Steaks.

[2020]

<https://doi.org/10.3390/app10134485>

Needham, T., Engels, R. & Hoffman L. *Applied Sciences*. 10, 4485.

Ante-and post-mortem strategies to improve the meat quality of high-value muscles harvested from farmed male common eland (*Taurotragus oryx*).

[2020]

<https://doi.org/10.1016/j.meatsci.2020.108183>

Needham, T., Kotrba, R., Hoffman, L. & Bureš, D. *Meat Sci.* 168, 108183.

Influence of ageing on the physical qualities of the longissimus thoracis et lumborum and biceps femoris muscles from male and female free-ranging common eland (*Taurotragus oryx*).

[2020]

<https://doi.org/10.1016/j.meatsci.2019.107922>

Needham, T., Laubser, J., Kotrba, R., Bureš, D. & Hoffman, L. *Meat Sci.* 159, 107922.

Carcass yields and physiochemical meat quality characteristics of Namibian gemsbok (*Oryx gazella*) as influenced by muscle, gender and age.

[2020]

<https://doi.org/10.1016/j.meatsci.2020.108208>

Hoffman, L.C., van Schalkwyk, D.L., Muller, M., **Needham, T.**, van Rensburg, B.J. & McMillin, K.W. *Meat Sci.* 169, 108208.

Comparison of two muscle fibre staining techniques and their relation to pork quality traits.

[2020]

<https://doi.org/10.17221/23/2020-CJAS>

Lebedova, N., **Needham, T.**, Citek, J., Okrouhla, M., Zadinova, K., Pokorna, K. & Stupka, R. Czech J. Anim. Sci. 65, 193-204.

Sensory characteristics of the longissimus thoracis et lumborum and biceps femoris muscles from male and female common eland (*Taurotragus oryx*).

[2019]

<https://doi.org/10.1016/j.meatsci.2019.107918>

Needham, T., Laubser, J., Kotrba, R., Bureš, D., Smyth, H. & Hoffman, L. Meat Sci. 158, 107918.

Sex influence on muscle yield and physiochemical characteristics of common eland (*Taurotragus oryx*) meat.

[2019]

<https://doi.org/10.1016/j.meatsci.2019.02.008>

Needham, T., Laubser, J., Kotrba, R., Bureš, D. & Hoffman, L. Meat Sci. 152, 41-48.

Influence of extending the pre-slaughter interval after second vaccination on the carcass cutting yield and the quality of meat from immunocastrated lambs.

[2019]

<https://doi.org/10.1016/j.meatsci.2018.09.014>

Needham, T., Lambrechts, H. & Hoffman, L. Meat Sci. 148, 13-18.

Influence of immunocastration vaccine administration interval on serum androgen concentrations and testis activity in ram lambs.

[2019]

<https://doi.org/10.1016/j.smallrumres.2018.11.016>

Needham, T., Lambrechts, H. & Hoffman, L. Small Rum. Res. 170, 82-90.

Extending the interval between second vaccination and slaughter: I. Effects on growth, scrotal size and stress responses of immunocastrated ram lambs.

<https://doi.org/10.1017/S1751731118003592>

Needham, T., Lambrechts, H. & Hoffman, L. 2019. Animal. 13, 1952-1961.

Extending the interval between second vaccination and slaughter: II. Changes in the reproductive capacity of immunocastrated ram lambs.

[2019]

<https://doi.org/10.1017/S1751731118003609>

Needham, T., Lambrechts, H. & Hoffman, L. Animal. 13, 1962-1971.

Hard ticks and tick-borne pathogens in Mongolia—A review.

[2019]

<https://doi.org/10.1016/j.ttbdis.2019.101268>

Černý, J., Buyannemekh, B., **Needham**, T., Gankhuyag, G. & Oyuntsetseg, D. Ticks Tick Borne Dis. 10, 101268.

Application of immunocastration in a commercial Dohne Merino ram flock before weaning.

[2018]

<https://www.ajol.info/index.php/sajas/article/view/183155>

Needham, T., Lambrechts, H. & Hoffman, L.C. S. Afr. J. Anim. Sci. 48, 1115-1120.

Castration of male livestock and the potential of immunocastration to improve animal welfare and production traits: Invited Review.

[2017]

http://www.scielo.org.za/scielo.php?script=sci_abstract&pid=S0375-15892017000600001

Needham, T., Lambrechts, H. & Hoffman, L. S. Afr. J. Anim. Sci. 47, 731-742.

Growth responses of entire and immunocastrated male pigs to dietary protein with and without ractopamine hydrochloride.

[2017]

<https://doi.org/10.1017/S1751731117000271>

Needham, T., Hoffman, L.C. & Gous, R.M. Animal. 11, 1482-1487.

The influence of vaccination interval on growth, carcass traits and testicle parameters of immunocastrated ram lambs.

[2016]

<https://doi.org/10.1016/j.smallrumres.2016.10.025>

Needham, T., Lambrechts, H. & Hoffman, L.C. Small Rum. Res. 145, 53-57.

Carcass traits and cutting yields of entire and immunocastrated pigs fed increasing protein levels with and without ractopamine hydrochloride supplementation.

[2015]

<https://doi.org/10.2527/jas.2015-9183>

Needham, T. & Hoffman, L.C. J. Anim. Sci. 93, 4545-4556.

Physical meat quality and chemical composition of the Longissimus thoracis of entire and immunocastrated pigs fed varying dietary protein levels with and without ractopamine hydrochloride.

[2015]

<https://doi.org/10.1016/j.meatsci.2015.06.017>

Needham, T. & Hoffman, L.C. Meat Sci. 110, 101-108.

HONOURS AND AWARDS

Young Scientist Award

International Congress of Meat Science and Technology [08/2016]

South African Society for Animal Science Bronze Award

South African Society for Animal Science [09/2015]

European Federation of Animal Science Scholarship

European Federation of Animal Science [04/2021]

ISEF Student Travel Fellowship recipient

International Stockmen's Educational Foundation [09/2015]

RECOMMENDATIONS

Collaborator

Name: Prof Louwrens Hoffman

Phone number: (+61) 417984547

Email: louwrens.hoffman@uq.edu.au

Meat Scientist, Center for Nutrition and Food Sciences, Queensland Alliance for Agriculture and Food Innovation (QAAFI)

PhD Supervisor

Name: Dr Helet Lambrecht

Phone number: (+27) 218084748

Email: helet@sun.ac.za

Senior Lecturer, Department of Animal Science, Stellenbosch University

Head of Department

Name: doc. Francisco Ceacero, Ph.D.

Phone number: (+420) 733450473

Email: ceacero@ftz.czu.cz

Associate Professor, Department of Animal Sciences and Food Processing, FTA, Czech University of Life Sciences, Prague