



LISA ANN ROTHMANN

Lecturer : Plant Pathology/Epidemiology
Plant Sciences, University of the Free State

Academics

Tertiary Education

- 2020** *Philosophiae Doctor*: Thesis in Plant Pathology
- “The spatial quantification and hierarchy characterization of *Sclerotinia* prevalence from a decade of observations in soybean and sunflower.”
- Supervisor: Neal McLaren, University of the Free State, South Africa
Co-supervisor: Emerson Del Ponte, Universidade Federal de Viçosa, Brazil
- 2015** *Magister Scientiae Agriculturae*: Dissertation in Plant Pathology
- “Modelling the colonisation of sorghum grain by the *Fusarium graminearum* species complex and concomitant mycotoxin production”
- Supervisor: Neal McLaren, University of the Free State, South Africa
Co-supervisor: Bradley Flett, Agricultural Research Council, South Africa
- 2013** *Baccalaureus Scientiae Agriculturae Honores* (Plant Pathology)
University of the Free State
- 2012** *Baccalaureus Scientiae Agriculturae* (Plant Pathology and Agrometeorology)
University of the Free State

Secondary Education

- 2007** Matriculated
St. John's Diocesan School for Girls

Employment

Teaching

- 2020 - 2018** Lecturer (contract, University of the Free State)
Plant Pathology
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|------------------------------|------------|
| Introductory plant pathology | (PPLG2624) |
| Epidemiology | (PPLG4834) |
- Faculty of Natural and Agricultural Sciences
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|-------------------------------------|-------------------------------------|
| Microbial principles in agriculture | (AGRI1664, Plant Pathology content) |
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- 2017 - 2013** Practical Assistant (contract, University of the Free State)
Plant Pathology
- | | |
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| Introductory Plant Pathology | (PPG214) |
| Bacteriology & Virology | (PPG424) |
| Plant-Parasite Interactions | (PPG444) |

	Epidemiology	(PPG434)
2011	Practical Assistant (ad hoc)	
	Agrometeorology	(LWR214)

Research

2020-2018	Principle Investigator (University of the Free State) Field pathology and summer grain crop research: sorghum, soybean and sunflower
2017 - 2014	Research Assistant (contract, University of the Free State) Plant Pathology: Professor N.W. McLaren
2013 - 2012	Laboratory Assistant (University of the Free State) Plant Pathology: Professor N.W. McLaren
2011	Laboratory Assistant (University of the Free State) Plant Pathology: Professor W.J. Swart

Invited Scientific Meetings

2017	27th Soilborne Plant Disease Symposium Stellenbosch, Western Cape, South Africa “ <i>Sclerotinia sclerotiorum</i> disease epidemiology: a South African approach” Supervisor: NW McLaren 19/09/2017 - 21/09/2017.
2014	25th South African National Seed Organisation Congress Pretoria, Gauteng, South Africa “Growing the Youth: Seeds of our future.” 2014/05/19 - 2014/05/21

National Scientific Meetings

Delivered, Oral presentation

2019	3rd New Voices Symposium Hosted by Cereal Science and Technology - South Africa “A quantitative summary of a 10-year survey of white mold prevalence in South Africa.” Supervisors: EM del Ponte 10/09/2019 - 11/09/2019 Winner: PhD Category, John Taylor Floating Trophy
2019	51st Southern African Society of Plant Pathology Congress Mykonos, Western Cape “A Community of Practice: Modelled on Sclerotinia Stem Rot of Soybean.” Supervisor: NW McLaren 20/01/2019 - 24/01/2019
2013	48th Southern African Society for Plant Pathology Congress Bela-Bela, Limpopo

“Effect of cultivar and environment on grain mold severity and mycotoxin accumulation in sorghum.”

Supervisor: NW McLaren

20/01/2013 - 24/01/2013

Contributor, Oral presentation

- 2016** McLaren, N.W., Coetzee, L. and van Rooyen, D. 2016. Sorghum root and grain diseases associated with legume rotation systems. 27th Annual Symposium of the Soilborne Diseases Interest Group, 20-22 September, 2016
- 2015** McLaren, N.W., Coetzee, L.A. and van Rooyen, D. 2015. Effect of legume rotation systems on root rot and grain molds of sorghum. 25th Soilborne plant diseases symposium, 10-11 September, 2015, Stellenbosch.
- 2015** McLaren, N.W., Chung, H-Y., Coetzee, L. and van Rooyen, D. 2015. Root rot, grain molds and mycotoxins of sorghum in a crop rotation system in Limpopo. 49th Congress of The Southern African Society For Plant Pathology, 18-21 January 2015, Bloemfontein.
- 2014** McLaren, N.W., Chung, M., Coetzee, L.A. and van Rooyen, D. 2014. Effect of legume rotation systems on root rot and grain molds of sorghum. 24th Soilborne Diseases Interest Group, 9-11 September, 2014, Stellenbosch.
- 2012** McLaren, N.W. and Coetzee, L. 2011. Epidemiology and prediction modelling of diseases caused by *Sclerotinia* spp. Soilborne Diseases Interest Group, September, 2012, Stellenbosch.

International Scientific Meetings (bold = presenter)

Presented, Oral

- 2019** **Rothmann, L.A.** 4 July 2019. South Africa to Brazil: Learning a new Language. GFIP - Seminar, Universidade Federal de Viçosa, Minas Gerais, Brazil.

Presented, Poster

- 2018** **Rothmann, L.A.**, Craven, M McLaren, N. W. 9-12 April 2018. Developing epidemiologically based intervention thresholds for sorghum leaf diseases in South Africa, Sorghum in the 21st Century, Global Sorghum Conference, Cape Town, South Africa.
- 2018** **Rothmann, L.A.** & McLaren, N.W. 2018, 29 July - 3 August 2018. Relationships between weather, colonization and mycotoxins produced by *Fusarium graminearum* species complex on sorghum grain. International Congress for Plant Pathology, Boston, Massachusetts, United States of America.
- 2017** **Rothmann, L.A.** & McLaren, N.W. 2017, 18-20 January. Epidemiology of Sclerotinia Stem Rot of soybean: A South African perspective. National Sclerotinia Initiative, Minnesota, United States of America.
- 2013** **McLaren, N. W.**, van Rooyen, D. & Coetzee, L. A. 27 – 31 May 2013. Variation in sorghum grain mold and mycotoxins due to host genotype and environment. Proceedings of the

ISM-Mycored Internationals Conference, Global Mycotoxin Reduction Strategies. Martina Franca, Apulia, Italy. (Invited: Poster & Presentation)

Academic Competitions

- 2019** New Voices Symposium
PhD Category Winner
John Taylor Floating Trophy
- 2018** FlashFacts Competition
University of the Free State, Faculty of Natural and Agricultural Sciences
Student: Third Place
- 2017** Three Minute Thesis
University of the Free State
PhD: First Place

Mentoring & Supervising

Current

- 2022- 2020** Alec Edwards, *PhD* Plant Pathology
Co-Supervisor
“An integrated systems approach to manage *Sclerotinia* stem rot using plant associated microbes and salicylic acid”
- 2021- 2018** Marlese Meiring, *PhD* Plant Pathology
Co-Supervisor
“*Sclerotinia sclerotiorum* disease potential and management responses in soybean and sunflower.”
- 2021- 2018** Thabiso Masisi, *MSc. Agric.* Plant Pathology
Supervisor
“Assessing the effect of decortication on sorghum grain mold fungi and concomitant mycotoxins.”

Completed

- 2019- 2017** Marlese Meiring, *MSc.* Plant Health Ecology (with distinction)
Co-Supervisor
“Inoculation techniques and evaluation methodologies for *Sclerotinia sclerotiorum* head and stem rot in sunflower and soybean”

Peer-Reviewed Publications

- 2020** Toth, B., Boka, K., Rothmann, L.A., Moloi, M.J. 2020. The effect of four industrial by-products on the photo-synthetic pigments, dry weight and ultrastructure of *Zea mays* L. *Biology Bulletin*.
- 2019** Boshoff, W.H., Prins, R., de Klerk, C., Krattinger, S.G., Bender, C.M., Maree, G.J., Rothmann, L. and Pretorius, Z.A. 2019. Point inoculation method for measuring adult plant response of wheat to stripe rust infection. *Plant disease* **103**: 1228-1233.

- 2019** Yekelo, N., Rothmann, L., Bender, C.M., Pretorius, Z.A. and Boshoff, W.H.P. 2019. Response of an International Triticale Collection to *Puccinia triticina* and *Puccinia recondita* sensu stricto and assessment of temperature sensitivity in leaf rust isolates. *Cereal Research Communications* **47**: 496-505.
- 2018** Rothmann, L.A. & McLaren, N.W. 2018. *Sclerotinia sclerotiorum* disease prediction: a review and potential applications in South Africa. *South African Journal of Science* **114**: 1-9

Publications for Peer-Review in Progress

- 2021** Vermeulen, M. Rothmann, L.A., Swart, W.J., Gryzenhout, M. Being revised for publication. Novel plant pathogenic species in the *Fusarium fujikuroi* species complex isolated from *Amaranthus cruentus* and three weevil species in South Africa.
- 2021** Alves, K. d. S., Rothmann, L.A., Del Ponte, E. M. In progress. Effect of climate on citrus huanglongbing spatial distribution in Minas Gerais: A Bayesian hierarchical modeling approach. *Journal still to be decided*.
- 2021** Rothmann, L.A. In progress. The role of information and communication technology in plant pathology and embracing reproducible research. *Phytopathology/Tropical Plant Pathology*.
- 2021** Rothmann, L.A. In progress. *Sclerotinia sclerotiorum*: a local perspective of an international pathogen. *South African Journal of Plant and Soil/South African Journal of Science*.
- 2021** Rothmann, L.A., Alves, K. d. S., Del Ponte, E. M. McLaren, N. W. In progress. A quantitative summary of a 10-year survey of white mold prevalence in South Africa. *Journal still to be decided*.
- 2021** Rothmann, L.A. In progress. Assessment of *Sclerotinia sclerotiorum* sclerotia recovered from soybean and sunflower silos across South African production regions. *Journal still to be decided*.

Peer Reviewing

- 2019/2020** Article in *Plant Disease*, re: *Sclerotinia sclerotiorum*

Published Materials in Popular Magazines/Web Resources

- 2020** Meiring, M.C., De Beer, A.S., Rothmann, L.A. and Cochrane, N.M. [In print]. Evaluating soybean cultivar tolerance to *Sclerotinia* stem rot under field conditions. Oilseed Focus Magazine, Summer 2020.
- 2020** Rothmann, L.A. OPP Virtual Seminar: delivering scientific talks without barriers. Accessible from: <https://openplantpathology.org/post/2020-04-03-announcement-virtual-seminar/>
- 2020** Rothmann, L.A. Clubroot of brassicas, an old but still poorly understood disease on the rise! An interview with Dr. Susann Auer for OPP: Accessible from: <https://openplantpathology.org/post/2020-04-03-interview-auer/>

- 2020** Rothmann, L.A. Evolution is not static: understanding factors that govern pathogen-host diversity. An interview with Dr. Remco Stam for OPP. Accessible from: <https://openplantpathology.org/post/2020-04-16-interview-stam/>
- 2020** Rothmann, L.A. The not so simple interactions associated with PR-1 proteins and Septoria nodorum blotch in wheat. An interview with Dr. Peter Solomon for OPP. Accessible from: <https://openplantpathology.org/post/2020-05-01-interview-solomon/>
- 2020** Rothmann, L.A. Cassava, change agent in classrooms and communities. An interview with Dr. Sally Mallowa for OPP. Accessible from: <https://openplantpathology.org/post/2020-05-15-interview-mallowa/>
- 2020** Rothmann, L.A. and Herron, D. Breath of fresh air: tree health and forest pathology. Dry Bean Organisation Magazine. Summer 2020: Edition 60.
- 2020** Rothmann, L.A. Chemical control of Sclerotinia diseases: a fungicide-resistance minded approach. Taken from: <http://sclerotinia.co.za/article/chemical-control-of-sclerotinia-diseases-a-fungicide-resistance-minded-approach>.
- 2020** Rothmann, L.A. and Minnaar-Ontong, A. The South African *Sclerotinia sclerotiorum* culture collection. Accessible from: <http://sclerotinia.co.za/article/sclerotinia-culture-collection>.
- 2020** Rothmann, L.A. and Meiring, M.C. Understanding and preserving plant heritage: a future hope for crop improvement. Dry Bean Organisation Magazine. Winter 2020: Edition 59.
- 2019** Rothmann, L.A. Meiring, MC. & McLaren, N.W. The development of novel risk reduction strategies for Sclerotinia head and stem rot of sunflower and soya beans. OilSeed Focus Magazine, Vol 5 No 2.
- 2019** McLaren, L.A. & Rothmann, L.A. Management of Sorghum Diseases. SA Grain Magazine, March 2019.
- 2019** Rothmann, L.A. 2019. SASRN: finding solutions together. Dry Bean Organisation Magazine. Winter 2019: Edition 58.
- 2020** Edwards, A. and Rothmann, L.A. Biological control of Sclerotinia diseases associated with oilseed crops. Accessible from: <http://sclerotinia.co.za/article/biological-control-of-sclerotinia-diseases-associated-with-oilseed-crops>.
- 2019** Rothmann, L.A. Grounded: soil talks. Dry Bean Organisation Magazine. Summer 2019: Edition 57.
- 2018** Rothmann, L.A. Weather water matters? Dry Bean Organisation Magazine. Winter 2018: Edition 56.
- 2017** Rothmann, L.A. Biodiversity, the spice of life. Dry Bean Organisation Magazine. Summer 2017: Edition 55.
- 2017** Rothmann, L.A. More than the eye sees. Dry Bean Organisation Magazine. Winter 2017: Edition 54.

- 2016** Coetzee L.A. Women in agriculture, Dry Bean Organization Magazine. Winter 2016: Edition 52.
- 2015** Coetzee, L.A. Forecasting, the future. Dry Bean Organization Magazine. Summer 2015: Edition 51. Accessed from: https://issuu.com/chillidesign/docs/sa_droebone_somer_2015_e
- 2015** Coetzee, L.A. Let's talk trash, Dry Bean Organization Magazine. Winter 2015: Edition 50
- 2014** Coetzee, L.A. Youth in agriculture, Dry Bean Organization Magazine. Summer 2014: Edition 49.

Organisation Membership

Current and Active

- 2020- 2019** Open Plant Pathology
Social Media and Blog Editor
- 2020 - 2019** Cereal Science and Technology - South Africa
- 2020- 2017** South Africa Sclerotinia Research Network
Administrator, Principal Investigator
- 2020 - 2017** Southern African Society of Plant Pathology
- 2020 - 2017** American Phytopathology Society
- 2013 - 2012** Southern African Society of Plant Pathology
American Phytopathology Society

In progress...

- 2020-2022** *Phytopathology* Early-Career Assistant Editor position (short listed, awaiting final approval)
- 2021** SACNASP application, due to PhD being awarded in 2020

Meeting & Workshop Organisation

- 2020 - 2017** South African Sclerotinia Research Network
Administrator, website development, marketing, meeting coordination
www.sclerotinia.co.za
- 2017 - 2018** Global Sorghum Conference, Cape Town
Local Organizing Committee: Student Committee Chairperson

Bursary Awards

- 2019** National Research Foundation: Knowledge Interchange & Collaboration
Travel Grant: Universidade Federal de Viçosa, Minas Gerais, Brazil
(Grant Number: 118341)
- 2018** American Phytopathology Society

Books of the World Awardee

2017 - 2015 National Research Foundation: Scarce Skills
(Grant Number: 97072)

2014 - 2012 Sorghum Trust
Howard G. Buffett Foundation through the Norman E. Borlaug Institute for International
Agriculture of Texas A&M AgriLife

Laboratory Workshops & Visits

International

2019 Professor Emerson Del Ponte
Fitopatologia, Epidemiologia
Universidade Federal de Viçosa, Minas Gerais, Brazil
2019/06/15 - 2019/08/03

2017 Dr. Gary Odvody & Dr. Gary Peterson
Texas A & M University & AgriLife; Corpus Christi & Lubbock, Texas
2017/01/21 - 2017/01/27

National

2016 International Fusarium Laboratory Workshop
University of Pretoria, Gauteng, South Africa
Forestry and Agricultural Biotechnology Institute (FABI)
2016/05/29 - 2016/06/3

Leadership Conferences

2015 International Student Festival in Trondheim (ISFiT): Corruption
Dialogue Participant: National Conflict
Roros & Trondheim, Norway
24/01/2015 - 15/02/2015

2014 Brightest Young Minds Summit
Johannesburg, South Africa
29/08/2014 - 3/09/2014

2013 Youth Ag Summit
Calgary, Canada
19/08/2013 - 25/08/2013

Current Academic Contracts

International

Memorandum of Agreement: University of the Free State, Free State, South Africa and Universidade Federal de Viçosa, Minas Gerais, Brazil

Currently enrolled in FIP602: Epidemiology (online course, presented in English)

National

Memorandum of Understanding: University of the Free State, Free State, South Africa and GrainSA

Memorandum of Understanding: University of the Free State, Free State, South Africa and Agricultural Research Council - Grain Crops Institute

Farmer's Days (selected)

- 2020- 2019** AgriSeed Insette Dag
Delmas, Mpumalanga
11/03/2019 - 12/13/2019
- 2019** South African Sclerotinia Research Network: Information Days
Sonop, Petrus Steyn, Marquard
- 2018** Bayer CropScience: *Sclerotinia sclerotiorum* Information days
Bethlehem, Arlington, Clocolan
October-November

Media Related Outputs

- 2017** University of the Free State: Website, Leonie Bolleurs
"Researcher works on finding practical solutions to plant diseases for farmers"
3/10/2017
- 2014** Landbou Weekblad, Leanne George
"Kinders moet weet waar hul kos vandaan kom"
6/6/2014
- 2014** Farmers Weekly, Annelie Coleman
"Where have all the young people gone?"
13/06/2014
- 2014** Landbou Weekblad, Liza Bohlmann
"Die Landbou het die jeug nodig. Landbou Weekblad."
20/06/2014