CURRICULUM VITAE: NEMERA GELETA SHARGIE

PERSONAL INFORMATION

Name	Nemera Geleta Shargie
Date of birth	28 April 1963
Current employment	Agricultural Research Council (ARC) South Africa
Work address	ARC- Grain Crops
	Private Bag X1251, Potchefstroom, South Africa, 2520
	Tel: +27 18 299 6284, Mobile: +27 72 293 4330
	E-mail: shargien@arc.agric.za / nemera.geleta@gmail.com
Nationality	Ethiopia
Permanent Residence	South Africa

EDUCATIONAL BACKGROUND

- **Post-doc.** in Plant Breeding, University of the Free State, SA (10/2003-02/2005)
- **Ph.D.** in Plant Breeding, University of the Free State, SA (09/2003)
- **M.Sc.** in Agriculture (Agronomy), Alemaya University of Agriculture, Ethiopia (10/1997)
- **B.Sc. in Plant Sciences**, Alemaya University of Agriculture, Ethiopia (08/1993)
- **Diploma in Plant Sciences,** Awassa College of Agriculture, Addis Ababa University, Ethiopia (07/1983)

TEACHING EXPERIENCE

University of the Free State, Department of Plant Sciences (Plant Breeding), Bloemfontein

- **Post-doctoral Fellow** (2004)
  Selection Methods (PLT314) to undergraduate students.
  Assist graduate students in data analysis (using mainly NCSS and AgroBase softwares).

Alemaya University of Agriculture, Department of Plant Sciences, Alemaya, Ethiopia

- **Lecturer**
  1997-1999 Undergraduate courses taught: Plant Breeding, Field Crops Production, Seed Technology, Weed Science, and Senior Research Project.
- **Graduate Assistant / Assistant Lecturer**
  Sep.1993-Aug.1995 assisted in laboratory and practical classes, supervising undergraduate research projects.

POSTGRADUATE STUDENTS SUPERVISION

Completed:

1. Abe S Gerrano (2008-2011). PhD. Biodiversity in Plant, Grain and Nutritional Characteristics of Sorghum [Sorghum bicolor (L.) Moench] Accessions from Ethiopia and South Africa. University of the Free State, Bloemfontein, 9300. Main supervisor: Prof M.

Labuschagne.

2. Dr Alina Mofokeng (2015-2016) Post-doctoral Fellow. Feed the Future Innovation Laboratory for Climate-Resilient Sorghum. USAID funded project Post-Doc.
3. Mr. Awadhi A Mashombo (2015-2017). MSc. Evaluation of Advanced Sorghum Lines for Use as Possible Parents in Breeding for Bio-Ethanol Production. University of KwaZulu-Natal, Scottsville, Pietermaritzburg, 3209. Main supervisor: Dr J. Sibiya.
4. Mr. Goodluck Douglass Ringo (2015-2017). MSc. (*Cum laude*). Characterisation of Cowpea Accessions Based on Agro-Morphological Traits, Nutritional Quality and Molecular Markers. University of KwaZulu-Natal, Scottsville, Pietermaritzburg, 3209. Main supervisor: Dr J. Sibiya.
5. Mr McDonald Nundwe (2016-2018). MSc. Characterisation of Sweet Sorghum Germplasm Based on Agro-Morphological Traits, Molecular Markers and Juice Related Traits. University of KwaZulu-Natal, Scottsville, Pietermaritzburg, 3209. Main supervisor: Dr J. Sibiya.
6. Ms Sellwane Jeanette Moloi (2016- 2019). MSc. A Comparative Physiological, Proteomic and Biochemical Analyses of Two Sorghum Varieties Under Salt Stress. University of the Free State, Qwaqwa Campus, Phuthaditjhaba, 9866. Main supervisor: Dr. R. Ngara.
7. Ms MJ Maja (2016-2019). MSc. Agronomic Potential and Nutritional Attributes of Finger Millet (*Eleusine coracana*) in Contrasting Agro-ecologies in South Africa. University of Venda, Thohoyandou, Limpopo. Main supervisor: Prof. E.T. Gwata.
8. Mr Ndlovu Thabani Nqaba (2017-2020). MSc. Evaluation of Sorghum Breeding Populations with Perenniality Traits for Morpho-agronomic and Nutritional Diversity. University of KwaZulu-Natal, Scottsville, Pietermaritzburg, 3209. Main supervisor: Dr J. Sibiya.
9. Mr Thulo Simon Sejake (2016-2020). MSc. Phenotypic, Biochemical and Molecular Characterization of Sorghum Germplasm. University of South Africa, Florida Campus, Johannesburg. Main supervisor: Prof. T.J. Tsilo, Co-supervisor: Prof. R. Christian.
10. Mr. Isaac Kodzo Amegbor (2018-2020). PhD. Assessment of Yield Drag in Quality Protein Maize Inbred Lines and Hybrids. University of the Free State, Bloemfontein, 9300. Main supervisor: Prof M. Labuschagne. Co-supervisors: Dr. Amsal T. Tarekegne and Dr. A. Van Biljon.

In progress:

11. Mr. Wilbert Tigere Mutezo (2019-). PhD student. Developing sorghum lines resistant to witch weed (*Striga hermonthica*) using CRISPR-Cas9 technology. Central University of Technology, Free State. Main Supervisor: Prof Sedibe Moosa. Co-supervisors: Dr T Soko and Dr A Mofokeng.
12. Mr Thulo Simon Sejake (2021-). PhD student. Genome-wide association analysis of agronomic, quality and disease-related traits in grain sorghum. Main supervisor: Prof M. Labuschagne. Co-supervisors: Prof L Herselman and Dr. A. Van Biljon.

RESEARCH EXPERIENCE

Agricultural Research Council-Grain Crops Institute (ARC-GCI), South Africa

Senior Researcher/Sorghum Breeder (03/2005-Present)

Responsibilities: Initiate, plan, implement and manage research and development projects on sorghum and to limited level on pearl millet & cowpea. Experience includes budget preparation and management, staffing, supervision, training, teamwork, discipline, records management, travel arrangements, leave and benefits administration, reporting (both written and oral presentations), partnerships with national, provincial and district Department of Agriculture, private companies in transferring improved sorghum varieties and production guidance issues, development of sorghum and pearl millet information packages and distribution to extension officers and farmers, and collaborate with local and international sorghum researchers in information and germplasm exchange.

List of local and international funded research projects and collaborations include:

- Breeding of dry beans. Funded by Dry bean Producers Organisation (DPO), June 2021- in progress.
- Dry bean cultivar evaluation. Funded by Dry bean Producers Organisation (DPO), June 2021- in progress.
- Participatory plant breeding of dry beans. Funded by CIAT, June 2021- in progress.
- Participatory evaluation of sorghum, pearl millet, cowpea, and okra. Funded by Alliance Bioversity International – CIAT, 2021 – in progress.
- Feed the Future Innovation Laboratory for Climate-Resilient Sorghum. Funded by USAID, 2014 -. In progress.
- Maintenance of the dry bean germplasm collection. Funded by DSI, June 2021-in progress.
- Maintenance and characterisation of sorghum germplasm. Funded by the Department of Science and Innovation (DSI). 2008-2012, and since Sep 2016-. In progress.
- Collection, Maintenance and characterisation of pearl millet germplasm. Funded by the DST. 2008-2012, and since Sep 2016-. In progress.
- Sorghum improvement for increased competitiveness. Funded by THRIP/NRF. 2014 -. In progress.
- Feasibility study of rice production in South Africa. DST Funded. April 2018-2019. Completed.
- Sorghum breeding for improved productivity. Funded by NRF/RTF. April 2016-2019. Completed
- Improved Maize for African Soils. Funded by Bill & Melinda Gates Foundation, 2015-2016. Completed.
- Sweet Sorghum: An Alternative Energy Crop. Funded by European Commission, 2009-2014 Completed.
- Africa Biofortified Sorghum Project. Funded by Bill & Melinda Gates Foundation, 2006-2012 Completed.

- Basic seed multiplication of improved sorghum varieties and smallholder seed producers training. Funded by the Department of Agriculture Forestry and Fisheries (DAFF), 2012-2014 Completed.
- Production and Agro-processing of cowpea. Funded by the ARC, 2013- 2015 Completed.
- Cowpea production for food security in South Africa. Funded by DAFF, 2011-2013 Completed
- Sorghum breeding. Funded by the Department of Agriculture, 2005-2010 completed.
- Cowpea germplasm maintenance and development. Funded by DST. 2008-2012 Completed
- Sorghum breeding for integrated food security and nutrition. Funded by the ARC. 2006-2009 Completed
- Evaluation of pearl millet varieties and hybrids for different production systems in South Africa. Funded by the Department of Agriculture, 2005-2007 Completed.
- Participatory evaluation and identification of sorghum cultivars for smallholder farmers. Funded by the ARC, 2005-2009 Completed.

University of the Free State, Department of Plant Sciences (Plant Breeding), South Africa
Post-doctoral Fellow (10/2003-02/2005)
Assignment: (1) Conducted grain quality evaluation of selected South African wheat varieties, (2) Field evaluation of Kenaf varieties.

Alemaya University of Agriculture, Department of Plant Sciences, Ethiopia
Lecturer/Asst Lecturer/Graduate Asst (11/1993-09/1995, 11/1997-12/1999)
- Assistant Research Director, March 1999- Dec.1999
- Head Agronomy Section, June 1997-April 1999

Ethiopian Institute of Agricultural Research (EIAR), Ethiopia
Technical Assistant (10/1984- 08/1989)
Technical support in field crops (sorghum breeding) research programme.

PUBLICATIONS IN PEER REVIEWED JOURNALS AND PROCEEDINGS

1. **Geleta, N** and MT Labuschagne. 2005. Qualitative traits variation in sorghum [*Sorghum bicolor* (L.) Moench] germplasm from eastern highlands of Ethiopia. *Biodiversity and Conservation*, 14:3055-3064.
2. **Geleta, N**, MT Labuschagne, G Osthoff, A Hugo & C Bothma. 2005. Physical and chemical properties associated with food quality in sorghum. *S. Afr. Plant Soil Journal*, 22(3): 175-179.
3. **Geleta, N**, MT Labuschagne & CD Viljoen. 2006. Genetic diversity analysis in sorghum germplasm as estimated by AFLP, SSR and morpho-agronomical markers. *Biodiversity and Conservation*, 15: 3251-3265.

4. **Geleta, NS** and Wenzel, W. 2007. Identifying Farmers' Preferences for Improved Sorghum Varieties in Limpopo, South Africa. Traditional Grains Review, SIK – The Swedish Institute for Food and Biotechnology: http://www.sik.se/traditionalgrains/default_start_en.htm
5. Labuschagne, MT, **N Geleta**, & G Osthoff. 2007. The influence of environment on starch content and amylose to amylopectin ratio in wheat. *Starch-Stärke* 59(5): 234-238.
6. Shegro, A. G., Labuschagne, M.T. and **Shargie, N.G.**, 2010. Protein and mineral content of sorghum [Sorghum bicolor (L.) Moench] accessions from Ethiopia and South Africa. In: Proceedings of the CST-SA – ICC International Grains Symposium: Quality and safety of Grain Crops and Foods. M.T. Labuschagne and K.G. Duoduo (Eds.), ISBN 978 0 8688 6 797 7, pp. 39-44.
7. Shegro, A.G., **Shargie, N.G.**, van Biljon, A., and Labuschagne, M.T. 2012. Diversity in Starch, Protein and Mineral Composition of Sorghum Landrace Accessions from Ethiopia. *J. Crop Sci. Biotech*. 15 (4): 275-280.
8. A Shegro, M.T. Labuschagne, **N. Geleta** and A. Van Biljon. 2013. Assessment of Genetic Diversity in Sorghum Using Phenotypic Markers. *Cereal Research Communications*. 41(4): 509-518.
9. Shegro, A., Labuschagne, M.T., van Biljon, A., **Shargie, N.G**. 2013. Assessment of genetic diversity in sorghum accessions using amplified fragment length polymorphism (AFLP) analysis. *Afri. J. Biotech.* 12 (11): 1178-1188.
10. Shegro, A., Labuschagne, M.T., **Shargie, N.G.**, van Biljon, A. 2013 Multivariate analysis of nutritional diversity in sorghum landrace accessions from Western Ethiopia. *J. Biol. Sci*. 13 (2): 67-74.
11. Gerrano, A.S., Labuschagne, M.T., van Biljon, A., **Shargie, N.G.** 2014. Genetic diversity assessment in sorghum accessions using qualitative morphological and amplified fragment length polymorphism markers. *Scientia Agricola*. 71(5): 394-401.
12. Gerrano, A.S., Labuschagne, M.T., van Biljon, A., **Shargie, N.G**. 2014. Genetic Variability among Sorghum Accessions for Seed Starch and Stalk Total Sugar Content. *Scientia Agricola*. 71(6): 472-479
13. Mofokeng, M.A. and **N.G. Shargie**. 2016. Bird damage and control strategies in grain sorghum production. *Int. J. Agri and Env. Res*., 2(4): 320-325.
14. Gerrano, A.S., Labuschagne, M.T., van Biljon, A., and **Shargie, N.G**. 2016. Quantification of Mineral Composition and Total Protein Content in Sorghum [Sorghum bicolor (L.) Moench] Genotypes. *Cereal Research Communications*. 44(2) PP 272-285
15. Ng'Uni, D., **Shargie, N.G.**, Andersson, S.C., Van Biljon, A. & Labuschagne, M.T. 2016. Genetic Variation and Trait Associations of Yield, Protein and Grain Micronutrients for Identification of Promising Sorghum Varieties. *Cereal Research Communications*. Volume 44(4), pp. 681–693
16. Maletsema Alina Mofokeng, Hussein Shimelis, Mark Laing, **Nemera Shargie**. 2017. Sorghum [*Sorghum bicolor* (L.) Moench] breeding for resistance to leaf and stalk anthracnose, *Colletotrichum sublineolum*, and improved yield: Progress and prospects. *AJCS* 11(09):1078-1085

17. Rudo Ngara, Elelwani Ramulifho, Mahsa Movahedi, **Nemera Shargie**, Adrian Brown, Stephen Chivasa. 2018. Identifying differentially expressed proteins in sorghum cell cultures exposed to osmotic stress. *Scientific Reports* 8(1):8671 https://DOI:10.1038/s41598-018-27003-1
18. Abe S. Gerrano, Willem S. Jansen van Rensburg, Sonja L. Venter, **Nemera G. Shargie**, Beyene A. Amelework, Hussein A. Shimelis & Maryke T. Labuschagne. 2018. Selection of cowpea genotypes based on grain mineral and total protein content. Acta Agriculturae Scandinavica, Section B — Soil & Plant Science. https://doi.org/10.1080/09064710.2018.1520290
19. Maletsema Alina Mofokeng, Hussein Shimelis, Mark Laing, **Nemera Shargie**. 2019. Genetic variability, heritability and genetic gain for quantitative traits in South African sorghum genotypes. AJCS 13(01):1-10
20. Tatenda Goche, **Nemera G. Shargie**, Ian Cummins, Adrian P. Brown, Stephen Chivasa & Rudo Ngara. 2020. Comparative physiological and root proteome analyses of two sorghum varieties responding to water limitation. Scientific Reports 10:11835 | https://doi.org/10.1038/s41598-020-68735-3
21. Thulo Sejake, Nemera Shargie, Riann Christian & Toi Tsilo (2020). Assessment of genetic diversity in sorghum germplasm using agro-morphological traits, South African Journal of Plant and Soil, 37:5, 376-388, DOI: 10.1080/02571862.2020.1807628
22. Wilbert Mutezo, Moosa M. Sedibe, Alina Mofokeng, **Nemera Shargie** and Tegwe Soko. The Application of CRISPR/Cas9 Technology in the Management of Genetic and Nongenetic Plant Traits. Hindawi, International Journal of Agronomy. https://doi.org/10.1155/2021/9993784
23. Thulo Sejake, **Nemera Shargie**, Riann Christian, Assefa B. Amelework and Toi J. Tsilo. 2021. Genetic diversity in sorghum (*Sorghum bicolor* L. Moench) accessions using SNP based Kompetitive allele-specific (KASP) markers. **AJCS** 15(06):890-898 (2021) ISSN: 1835-2707 doi: 10.21475/ajcs.21.15.06.p3088
24. Mofokeng MA, Amelework BA, Chipeta O, Sibiya J, Gerrano AS, **Shargie N** and Mashingaidze K. 2021. Assessment of genetic variability in groundnut (*Arachis hypogaea* L.) genotypes grown under South African conditions using agronomic and SSR markers. **AJCS** 15(10):1224-1232 (2021) ISSN:1835-2707 doi: 10.21475/ajcs.21.15.10.p2856
25. Amegbor, I.K., van Biljon, A., **Shargie, N.** Tarekegne, A. & Labuschagne, M. 2022. Heritability and Associations among Grain Yield and Quality Traits in Quality Protein Maize (QPM) and Non-QPM Hybrids. **Plants** 2022, 11:6 713 (1-17). March 2022.
26. Amegbor, I.; van Biljon, A.; **Shargie, N.**; Tarekegne, A.; Labuschagne, M. Identifying Quality Protein Maize Inbred Lines for Improved Nutritional Value of Maize in Southern Africa. **Foods** 2022, 11, 898. https://doi.org/10.3390/foods11070898

THESES BOOKS

21. Shargie, N.G. 1997. Variability and Association of Morpho-Agronomic Characters with Reference to Highland Sorghum [Sorghum bicolor (L.) Moench] Landraces of Hararghe,

Eastern Ethiopia. M.Sc. Dissertation, Alemaya Univ. of Agriculture, Alemaya, pp 1-82.

22. Shargie, N.G. 2003. Morpho-Agronomical and Molecular Marker Based Genetic Diversity Analyses and Quality Evaluation of Sorghum [*Sorghum bicolor* (L.) Moench] Genotypes. Ph.D. Thesis, University of the Free State, Bloemfontein, pp 1-172.

NON-REVIEWED PUBLICATIONS

1. Shargie, N. 2016. Cowpea in marginal cropping areas of South Africa. May 2016. SA GRAIN.
2. Shargie, N. 2016. Potential of Perennial Sorghum. April 2016. SA Grain.
3. Shargie, N. 2015. Sorghum seed production by smallholder farmers. SA Grain. Vol 17 No 3. Pg. 53 March 2015.
4. Shargie, N., 2014. The SWEETFUEL project - Sweet Sorghum: An alternative energy crop, WP2-Breeding for drought prone environments results in SA, SWEETFUEL NEWS – May 2014.
5. Cosette Khawaja, Rainer Janssen, Domink Rutz, Delphine Luquet, Gilles Trouche, Bellum Reddy, Pinnamanini Srinivas Rao, Gali Basavaraj, Robert Schaffert, Cynthia Damasceno, Rafael Parella, Arndt Zacharias, Raoul Bushmann, Nils Rettenmaier, Guido Reinhardt, Andrea Monti, Walter Zegada Lizarazu, Stefano Amaducci, Adriano Marocco, Wikus Snijman, **Nemera Shargie**, Hannelie Terblanche, Francisco Zavala-Garcia, Serge Braconnier. 2014. Energy Sorghum: An alternative energy crop. A Handbook. 78 pp.
6. Shargie, N. 2012. Physico-chemical characteristics and nutritional value of sorghum grain. SA Graan/Grain, Vol 14 No 9, September 2012.
7. Shargie, N. 2011. Better Millet. Farmer's weekly Vol. 11026 Pg. 75, 22 July 2011.

Conference Presentations

Thulo Sejakea, **Nemera Shargie**, Toi Tsilo and Riann Christian. 2020. Characterisation of Sorghum Germplasm using Phenotypic and Molecular Markers. 13th Southern African Plant Breeders' Association Symposium, Pretoria, South Africa, 08-11 March 2020

Isaac K. Amegbor, Angeline Van Biljon, Amsal Tarekegne, **Nemera Shargie**, Maryke T. Labuschagne. 2020. Genetic analysis for grain yield and quality traits of CIMMYT quality protein maize inbred lines. 13th Southern African Plant Breeders' Association Symposium, University of Pretoria, Pretoria, South Africa, 08-11 March 2020

Shargie, N.G., Mashombo A.A., Sibiya, J. 2018. Evaluation of advanced sorghum lines for bio-ethanol production related traits. "Sorghum in the 21st Century: Food, Feed and Fuel in a Rapidly Changing World" Global Conference. Century City Conference Centre, Century City, Cape Town, 9-12 April 2018

Shargie, N.G., Ndlovu, T., J Sibiya, J. 2018. Breeding perennial sorghum - Potential and Challenges for Future Sustainable Crop Production. 12th Southern African Plant Breeding Symposium. Gateway Hotel, Umhlanga Ridge, Durban, KwaZulu-Natal, 12-14 March 2018

Mofokeng, M.A., H. Shimelis, H., Laing, M., Tongoona, P. and **Shargie, N.G.** 2017. Appraisal of farmers' sorghum production constraints and variety preferences in the Limpopo Province,

South Africa. Combined Congress 2017, Klein-Kariba, Bela Bela (Limpopo province), South Africa, 23-26 January 2017

Mofokeng, M.A. and **Shargie, N.G**. 2017. Estimation of genetic diversity in sorghum accessions using agro-morphological and nutritional traits.19th International Conference of Plant Breeding and Molecular Breeding (ICPBMB), 13-14 January 2017, Durban, South Africa

Mofokeng, M.A., Shimelis, H.A., Laing, M.D., **Shargie, N.** 2016. Genetic diversity among selected South African sorghum genotypes for protein content and amino-acid composition. Combined Congress 2016, Bloemfontein, South Africa, 18-21 January 2016

Shargie, NG, Terblanche, CJ & Rantso, MP. 2015. Improving Cowpea Yields in South Africa. Combined Congress, Tramonto - George, South Africa, 19-22 January 2015

Shargie, NG, Belum VS Reddy, P Srinivasa Rao, Vincent Vadez, Heraldo Layaoen. 2013. Genetic enhancement of sweet sorghum for SAT conditions. Combined Congress 2011 & Workshop on Biofuels and water, UKZN, Durban, South Africa, Jan 21-24 2013

Shargie, NG and Chiremba, C. 2011. Agronomic and milling quality evaluation of pearl millet genotypes. Combined Congress 2011, University of Pretoria, South Africa 17-20 Jan 2011

Shargie, NG. 2010. Sorghum and Pearl millet: Indigenous Crops to Enhance Food Security and Mitigate Climate Change in South Africa. DST-IKS Workshop. International Convention Centre (ICC) Durban, 26-30 July 2010

TJ Malala, WG Wenzel, **NG Shargie**, P Soundy & JM Steyn. 2010. Evaluation of sorghum [Sorghum bicolor (L.) Moench] genotypes for drought tolerance at Potchefstroom. 8th Southern African Plant Breeding Workshop "Breeding the Future", Spier Wine State, Stellenbosch, 15-17 March 2010

CMS Mienie, K Mashingaidze and **N Shargie**. 2009. Water efficient maize for Africa (WEMA) project in South Africa. Maize and Sorghum Section of Eucarpia: XXI Conference on maize and sorghum breeding in the genomic era, Bergamo, Italy, 21-24 June 2009

Nemera Geleta and Thifhindulwi Malala. 2007. Identifying farmers' preferences for improved sorghum varieties in Limpopo, South Africa. International Foundation for Science (IFS) Workshop on Traditional Grains for Low Environmental Impact and Good Health. Intundla Game Lodge, Pretoria, South Africa, 5-8 November 2007

Shargie, NG. 2006. The Status of Sorghum Breeding at the ARC, South Africa. Southern African Region and United States Sorghum Breeders Meeting. Lusaka, Zambia, 25-29 April 2006.

Geleta, N. and M.T. Labuschagne. 2004. Genetic diversity and quality analyses of sorghum [Sorghum bicolor (L.) Moench] genotypes. Fifth Plant Breeding Symposium. San Lameer, KwaZulu Natal, South Africa, 15-18 March 2004.

EDITORIAL SERVICES

- Served as an ad hoc reviewer of local and international scientific journals: SA J Plant & Soil, Water SA, East African J of Sciences, African Journal of Agricultural Research, African Journal of Plant Science, J Cereal Science, Euphytica, Hereditas, Australian Journal of Crop

Science, Australian Journal of Agricultural Research, Scientific Research and Essays, Frontiers in Plant Science.

NATIONAL PROFESSIONAL SERVICE

- Served as a reviewer more than 10 times for the National Research Foundation, and once for Maize Trust for grant applications and peer evaluations.

- Served as **external examiner** on 11 Masters and six PhD candidates:

MSc Dissertation/ MTech

Abdurahman Beshir Issa .2009. Genotype by Environment Interaction and Yield Stability of Maize Hybrids Evaluated in Ethiopia. MSc Dissertation. University of the Free State.

Didi Xhanti Makaula. 2010. Investigation of stem juice contents from various sorghum varieties and identification of related proteins. Mini-Thesis. University of the Western Cape.

Mailula N.M. 2013. Determination of the Rate and Distance of Pollen-mediated Gene Flow in Sorghum using Cytoplasmic Male Sterile Varieties. MSc Dissertation. University of Limpopo.

Makgoba S.S. 2013. Evaluation of different South African wheat cultivars under irrigation for quality and yield parameters in Limpopo Province. Mini-Dissertation. University of Limpopo.

Unigwe A.E. 2017. MTech Biotechnology. Assessing the morphological variation and characterising the proteins of Bambara groundnut (*Vigna subterranea* L. Verdc). Vaal University of Technology.

Madimabe K.S. 2018. Productivity of Five Pigeonpea (*Cajanus cajan*) Varieties in a Pigeonpea-Maize Strip Intercropping in Limpopo Province. Mini-Dissertation. University of Limpopo.

Mogale TE. 2018. Multi-Location Field Evaluation of Bambara groundnut (*Vigna subterranean* (L) Verdc) for Agronomic Performance and Seed Protein. MSc Dissertation. University of Venda.

Nkoana KD. 2018. Evaluation of Diverse Cowpea (*Vigna unguiculata* (L.) Walp.) Germplasm for Field Performance and Drought Tolerance. Masters Dissertation. University of Venda.

Makhumbila P. 2018. Combining Ability for Ear Prolificacy and Response of Prolific Maize (*Zea mays* L.) Hybrids to Low Nitrogen Stress. Masters Dissertation. University of Venda.

Sibusiso Luck Zulu. 2018. Optimal Harvest Age in Different Sugarcane (Saccharum officinarum) Production Regions. MSc Dissertation. University of KwaZulu-Natal.

Viriato Silvio Isac Cossa. 2018. Genetic Diversity, Combining Ability and Heterosis for Yield and Yield Components in Sorghum (*Sorghum bicolor* (L.) Moench). MSc Dissertation. University of KwaZulu-Natal.

PhD Thesis

Olupot John Robert. 2012. Genetic analysis of Striga hermonthica resistance in sorghum

(Sorghum bicolor (L.) Moench) genotypes in Eastern Uganda. PhD Thesis. University of KwaZulu-Natal.

Amelework Beyene Assefa. 2013. Genetic Diversity Analysis of Lowland Sorghum ([Sorghum bicolor (L.) Moench] Landraces under Moisture Stress Conditions and Breeding for Drought Tolerance in North Eastern Ethiopia. PhD Thesis. University of KwaZulu-Natal.

Netsanet Bacha Hei. 2014. Genetic Analysis of Stem Rust Resistance among Ethiopian Grown Wheat Lines. PhD Thesis. University of KwaZulu-Natal.

Alina Mofokeng. 2015. Diversity analysis of South African sorghum genotypes using agronomic traits, SSR markers and protein content and amino acid composition. PhD Thesis. University of KwaZulu-Natal.

Precious Mangena. 2018. Development of Sweet Stem Sorghum Hybrids for Bio-ethanol Production using Male Gametocides. PhD Thesis. University of KwaZulu-Natal.

Girma Mengistu Digafe. 2019. Pre-breeding of sorghum for Agronomic Traits and Anthracnose Resistance in Western Ethiopia. PhD Thesis. University of KwaZulu-Natal.

AWARDS

- Southern African Plant Breeders' Association Award, for being sponsored by PANNAR Quality Seeds to attend the 5th Plant Breeding Symposium, San Lameer, South Africa, 2004.
- Chairman's Gold Medal, for excellent performance in the Final Examination at the International Center for Training and Research in Tropical Sericulture, Mysore, India, 1987
- Special Award, Graduate with Distinction, Addis Ababa University, Ethiopia, 1983.

PROFESSIONAL BODIES MEMBERSHIP:

- Member of the Southern African Plant Breeders' Association (SAPBA), since 2002
- Register Member of the South African Council for Natural Scientific Professions (SACNASP), since 2006
- Member of the South African Society of Crop Production (SASCP), 2006-2018
