

Biographical Sketch

Thandiwe Nleya

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EDUCATION

University of Saskatchewan, Canada

Southampton University, England

University of Zimbabwe, Zimbabwe

Ph.D. Crop Science: 1997

M.S. Agronomy: 1988

B.S. Agriculture: 1984

PROFESSIONAL EXPERIENCE

July 2022 – present, Professor, Agronomy, Horticulture, and Plant Science Department, South Dakota State University, SD

2008 – June 2022 Associate Professor, Agronomy, Horticulture, and Plant Science Department, South Dakota State University, SD

2003-2007 Assistant Professor, Department of Plant Science, South Dakota State University, SD

1997-2003 Postdoctoral Research Associate, University of Saskatchewan, Canada

1993-1997 Research Assistant, Department of Plant Sciences, University of Saskatchewan, Canada

1988-1992 Research Scientist, Ministry of Agriculture, Zimbabwe.

PROFESSIONAL ACTIVITIES

- Chair, ACS – Emerging Leader and Visionary Scientist for African Agriculture Award Committee. January 2023 to December 2024.
- Technical Editor, Agronomy Journal, 2023 - to present
- Chair, Production Systems, ASA January - December 2022.
- Technical editor for Agronomy Journal special issue on “*Near-Term Problems in Meeting World Food Demands*”, 2021
- Associate Editor, Agronomy Journal, 2016– 2021
- A499.10 Undergraduate Agronomic Travel Study Scholarship Committee, 2019
- ASA Bioenergy Systems Community, Leader, 2018
- ASA Women in Science Committee, 2017 – 2018
- ASA Bioenergy Systems Community, Vice Leader, 2017
- ACS 449.8 Student Research Symposium Contest Committee, 2014 - 2015
- Manuscript reviewer for Agronomy Journal, Irrigation Science, Crop, Forage and Turfgrass Management, International Journal of Agronomy
- Panelist for the USDA-AFRI A1152 “Physiology of Agricultural Plant” - 2023.
- Grant panelist for USDA-NIFA-SBIR 8.13. - 2017, 2018, 2020
- Grant panelist for USDA-NIFA-SBIR 8.13.
- Grant panelist for USDA-OREI. - 2010

HONORS AND AWARDS

- Recipient of the 2017 Associate Editor Excellence Award of the Year for the Agronomy Journal
- ASA Division A-4 Educational Materials Certificate of Excellence, 2008 for publication *Producing and Marketing Proso Millet in the High Plains*.

PUBLICATIONS

1. Amajioyi, J., **T. Nleya**, S. Subramanian, and S. A. Clay. 2023. Herbicide and additive impacts on *Bradyrhizobium japonicum* growth in solution. *Agrosystems, Geosciences and Environment* <https://doi.org/10.1002/agg2.20416>
2. Arinaitwe, U., Clay, S.A. and Nleya, T. 2023. Growth, yield and yield stability of canola in the Northern Great Plains of the United States. *Agronomy Journal*, 115,744 - 758. <https://doi.org/10.1002/agj2.21269>
3. Amajioyi, J., **T. Nleya**, G. Reicks, J. Moriles-Miller, D. Clay, and S. Clay. 2022. Auxin-based herbicide program for weed control in auxin resistant soybean. *Agrosystems, Geosciences and Environment*, DOI: 10.1002/agg2.20299.
4. Rai, T.S., S. Kumar, **T. Nleya**, and G. Hoogenboom. 2022. Simulating the impact of crop-livestock interaction on crop performance using DSSAT. *Agrosystems, Geosciences and Environment*, DOI: 10.1002/agg2.20303
5. Rai, T.S., S. Kumar, **T. Nleya**, P. Sexton, and G. Hoogenboom. 2022. Simulating maize and soybean yield using DSSAT under long-term conventional and no-till systems. *Soil Research* 60: 520-533. <https://doi.org/10.1071/SR21042>
6. Obour, A.K, L.M. Simon, J.D. Holman, P.M. Carr, Meagan Schipanski, S. Fonte, R. Ghimire, **T. Nleya**, and H. Blanco-Canqui. 2021. Cover crops to improve soil health in the North American Great Plains. *Agronomy Journal*, <https://doi.org/10.1002/agj2.20855>
7. Rai, T.S., **T. Nleya**, S. Kumar, P. Sexton, T. Wang and Y. Yubing. 2021. The medium-term impacts of integrated crop-livestock systems on crop yield and economic performance. *Agronomy Journal*, <https://doi.org/10.1002/agj2.20840>
8. **Nleya, T.** and S.A. Clay. 2021. Near-term problems in meeting world food demands at regional levels: A special issue overview. *Agronomy Journal*, <https://doi.org/10.1002/agj2.20930>
9. Bhattarai, D., S. Kumar and **T. Nleya**. 2020. Nitrogen and sulfur effects on growth and yield of *Brassica carinata* in South Dakota. *Agronomy Journal* 113:1945-1960. doi:10.1002/agj2.20501
10. Shrestha, P., R. Karim. H. Sieverding, D. Archer, S. Kumar, **T. Nleya**, C. Graham, and J. Stone. 2020. Life cycle assessment of wheat production and wheat-based crop rotations. *Journal of Environmental Quality*. 46:1515-1529. doi: 10.1002/jeq2.20158.
11. **Nleya, T.**, M. Schutte, D. Clay, G. Reicks, and N. Mueller. 2020. Planting date, seed treatment and seeding rate effects on soybean growth and yield. *Agrosystems, Geosciences and Environment*. DOI: 10.1002/agg2.20045
12. Li, N., P. Kumar, L. Lai. G. Abagandura, S. Kumar, **T. Nleya**, H. Sieverding, J. Stone, and W. Gibbons. 2019. Response of soil greenhouse gas fluxes and soil properties to nitrogen fertilizer rates under camelina and carinata non-food oilseed crops. *BioEnergy Research*. 12:524-535. <https://doi.org/10.1007/s12155-019-09987-4>.
13. Alberti, P., S. Osborne, F. Mathew, S. Ali, H. Sieverding, S. Kumar, and **T. Nleya**. 2019. Nitrogen requirements of Ethiopian mustard (*Brassica carinata*) for biofuel feedstock in South Dakota. *Agron. J.* doi:10.2134/agronj2018.06.0419

14. Kumar, S., H. Sieverding, L. Lai, **T. Nleya**, B. Wienhold, D. Redfearn, D. Archer, D. Ussiri, D. Faust, D. Landblom, E. Grings, J. Stone, J. Jacquet, K. Pokharel, M. Liebig, M. Schmer, P. Sexton, R. Mitchell, S. Smalley, S. Osborne, S. Ali, S. Senturklu, S. Sehgal, V. Owens, and V. Jin. 2019. Facilitating crop-livestock reintegration in the Northern Great Plains. *Agron. J.* 111:1-16 doi:10.2134/agronj2018.07.044
15. Chalise, K. S., S. Singh, B.R. Wegner, S. Kumar, J.D. Pérez-Gutiérrez, S. L. Osborne, **T. Nleya**, J.G. Guzman, and J.S. Rohila. 2018. Cover crops and returning residue impact on soil organic carbon,
16. Dunbar, M., A. Adhikari, B. Konts, A. Varenhorst, T. Nleya, E. Byamukama, and F. Mathew. 2017. First report of *Alternaria* Black Spot caused by *Alternaria alternata* on *Brassica carinata* in South Dakota. *Plant Disease*. <https://doi.org/10.1094/PDIS-02-17-0222-PDN>
17. Byamukama, E., A.C. Tande, D. J. Olson, L. Hesler, K. Grady, T. Nleya, and F.M. Mathew. 2016. First detection of aster yellows associated with *Phytoplasma* on *Camelina sativa* L. in South Dakota. *Plant Disease*. <http://dx.doi.org/10.1094/PDIS-10-15-1179-PDN>
18. Nleya, T. and J. R. Rickertsen. 2014. Winter wheat response to planting date under dryland conditions. *Agron. J.* 106: 915-924. <http://doi:10.2134/agronj13.0417>
19. **Nleya, T.** and J. R. Rickertsen. 2013. Seeding rate effects on yield and yield components of chickpea in South Dakota. Online. *Crop Management* doi:10.1094/CM-2013-0001-RS. Plant Management Network.
20. Rezwanul, P. Md., S.W.Fausti, **T. Nleya**, P.S. Johnson, K.C. Olson, J.R. Rickertsen. 2013. Forage options and drought risks: A South Dakota Case Study. 2013 *Journal of AFSMRA* pages 167-184.
21. Nleya, T. and J. R. Rickertsen. 2013. Seeding rate effects on yield and yield components of chickpea in South Dakota. Online. *Crop Management*. <http://doi:10.1094/CM-2013-0001-RS>. Plant Management Network.
22. **Nleya, T.** and R.J. Rickertsen 2011. Seeding rate and variety effects on yield, yield components, and economic return of field pea in the northern Great Plains. Online. *Crop Management* doi:10.1094/CM-2011-0221-01-RS. Plant Management Network.
23. **Nleya, T.**, Walley, F. and Vandenberg. A. 2009. Response of determinate and indeterminate common bean genotypes to *Rhizobium* inoculant in a short season rainfed production system in the Candaian Prairie. *Journal of Plant Nutrition* 32:44-57.
Nleya, T., Ball, R.A. and Vandenberg, A. 2005. Germination of common bean under constant and alternating cool temperatures. *Canadian Journal of Plant Science*: 85:577-585.
24. Kyei-Boahen, S., **Nleya, T.**, Hynes, R. and Walley, F. 2005. Single and Multistrain Inocula for Pinto and Black Bean Cultivars. *Journal of Plant Nutrition* 28: 1679-1692.
25. **Nleya, T.M.**, Arganosa G.C., Vandenberg, A. and Tyler, R. T. 2002. Genotype and environment effect on canning quality of kabuli chickpea. *Canadian Journal of Plant Science* 82: 267-272.
26. **Nleya, T.M.**, Walley, F. and Vandenberg, A. 2001. Response of common bean cultivars to granular inoculant in a dryland production system. *Canadian Journal of Plant Science* 81: 385-390.

27. **Nleya T.M.**, Slinkard, A.E. and Vandenberg, A. 2001. Differential performance of pinto bean under varying levels of soil moisture. *Canadian Journal of Plant Science* 81: 233-239.
28. **Nleya, T.M.**, Slinkard, A.E. and Vandenberg, A. 1999. Evaluation of determinate and indeterminate dry bean cultivars under an available soil moisture gradient. *Canadian Journal of Plant Science* 79: 27-34.
29. **Nleya, T.M.** 1992. Response of dry beans (*Phaseolus vulgaris* (L)) to varying levels of nitrogen, phosphorus and potassium fertilizers. *Zimbabwe Journal of Agricultural Research* 27(2):149-151.
30. Naik, D.M., Mukoko, O.Z. and **Nleya, T.** 1990. Performance of erect growing cowpea (*Vigna unguiculata* (L.) Walp) varieties in Zimbabwe. *Zimbabwe Journal of Agricultural Research*. 28(1):23-32.
31. **Ndlovu, T.M.** and Giga, D.P. 1988. Studies in varietal resistance of the cowpea to the cowpea weevil (Coleoptera:Brucidae). *Insect. Sci. Appli.* 9(1) 123-128.
32. Jackai, L.E.N. and **Ndlovu, T.M.** 1988. Screen cage and laboratory evaluation of the efficacy of six foliar insecticides on different stages of the cowpea coreid bug, *Clavigralla tomentisicollis*, Stal (Hemiptera:Coreidae). *Insect. Sci. Appli.* 9: 223-228.

Reviewed Book Chapters and Pages

1. **Nleya, T.**, D. Bhattarai and P. Alberti. 2021. Agronomic response of camelina to nitrogen and seeding rate on the Northern Great Plains. In: *Nitrogen in agriculture: Physiological, Agricultural and Ecological Aspects*, T. Ohyama and K. Inubushi (eds), IntechOpen, DOI: 10.5772/intechopen.95794. Available from: <https://www.intechopen.com/online-first/74900>
2. Schutte, M. and **T. Nleya**. 2019. Row spacing and seeding rate effects on soybean seed yield. In: *Soybean - Biomass, Yield and Productivity*, Minobu Kasai (ed), IntechOpen, DOI: 10.5772/intechopen.80748. Available from: <https://www.intechopen.com/books/soybean-biomass-yield-and-productivity/row-spacing-and-seeding-rate-effects-on-soybean-seed-yield>
3. Nleya, T., C. Chungu, and J. Kleinjan. 2016. Corn growth and development. Chapter 5. In *Clay, D.E., C.G. Carlson, S.A. Clay, and E. Byamukama* (eds). *iGROW Corn: Best Management Practices*. South Dakota State University.
4. Nleya T., A. Vandenberg, F.L. Walley, D. Deneke. 2016. Lentil: Agronomy. In: Wrigley, C., Corke, H., and Seetharaman, K., Faubion, J., (eds.) *Encyclopedia of Food Grains, 2nd Edition*, pp. 223-230 Oxford: Academic Press.
5. Nleya, T., P. Sexton, K. Gustafson, and J. Moriles. 2013. Soybean growth stages. In *Clay, D.E., C.G. Carlson, S.A. Clay, L. Wagner, D. Deneke, C. Hay* (eds). *IGrow Soybean: Best Management Practices for Soybean Production*. South Dakota State University, SDSU Extension, Brookings, SD.
6. **Nleya, T.** 2012. Winter wheat planting guide”. In *Clay, D.E., C.G. Carlson, and K. Dalsted* (eds). *iGrow Wheat: Best Management Practices for Wheat Production in South Dakota*. South Dakota Extension, Brookings, SD.
7. Hall, R. and **T. Nleya** 2012. “Winter and spring wheat growth stages”. In *Clay, D.E., C.G. Carlson, and K. Dalsted* (eds). *iGrow Wheat: Best Management Practices for Wheat Production in South Dakota*. South Dakota Extension, Brookings, SD.
8. **Nleya, T.M.**, and Vandenberg, A. and Walley, F. 2004. Lentil: Agronomy. *Encyclopaedia of Grain Sciences*. Vol. 2 p.150-157. Elsevier, Oxford, UK.

9. Vandenberg, A. and **Nleya, T.M.** 1999. Breeding for new plant types in common bean. Pages 167-183. In S.P. Singh, (ed). Common Bean Improvement for 21st Century. Kluwer Publishers.
10. **Nleya, T.M.**, Vandenberg, A., Arganosa, G.C., Warkentin, T., Muehlbauer, F.J. and Slinkard, A.E. 1997. Produce quality of legumes: Genotype, environment and genotype x environment considerations. Pages 173-182 In R. Knight (ed). Linking Research and Marketing Opportunities for Pulses in the 21st Century. Kluwer Academic Publishers, Dordrecht.
11. **Nleya, T.M.** 1992. Cowpea. Pages 157-163. In E.E. Whingwiri, K. Mashingaidze and M. Rukuni (eds.). Small Scale Agriculture in Zimbabwe: Field Crop Production. Rockwood Publishers, Harare.