

## PLANT SCIENCES RESEARCH OUTPUTS

### Research Articles 2022

**Abdi, N., Van Biljon, A., Steyn, C. & Labuschagne, M.** 2022. Salicylic acid improves salt stress tolerance of two bread wheat cultivars. *Plants* 11: 1853. DOI: [10.3390/plants11141853](https://doi.org/10.3390/plants11141853).

**Adams, L.D., Martin, G.D., Downs, C.T., Clark, V.R., Thabethe, V., Raji, I.A. & Steenhuisen, S.** 2022. Seed dispersal by frugivores and germination of the invasive alien shrub *Pyracantha angustifolia* (Franch.) C.K. Schneid. in Free State Province, South Africa. *Biological Invasions* 24: 2809-2819. DOI: 10.1007/s10530-022-02807-5.

**Aina, O., Bakare, O.O., Daniel, A.I., Gokul, A., Beukes, D.R., Fadaka, A.O., Keyster, M. & Klein, A.** 2022 Seaweed-derived phenolic compounds in growth promotion and stress alleviation in plants. *Life* 12: 1548. DOI: [10.3390/life12101548](https://doi.org/10.3390/life12101548).

**Alves, K.D.S., Rothmann, L.A., & Del Ponte, E.M.** 2022. Linking climate variables to large-scale spatial pattern and risk of citrus Huanglongbing: A hierarchical Bayesian modeling approach. *Phytopathology* 112: 189-196. DOI: 10.1094/PHYTO-05-21-0219-FI.

**Amegbor, I.K., Van Biljon, A., Shargie, N., Tarekegne, A. & Labuschagne, M.T.** 2022. Does the quality protein maize trait cause hybrid yield losses? A case study in Southern Africa. *Euphytica* 218: 87. DOI: [10.1007/s10681-022-03041-9](https://doi.org/10.1007/s10681-022-03041-9).

**Amegbor, I.K., Van Biljon, A., Shargie, N., Tarekegne, A. & Labuschagne, M.T.** 2022. Grain quality of hybrids from quality and non-quality protein maize inbred lines. *Journal of Cereal Science* 107: 103544. DOI: [10.1016/j.jcs.2022.103544](https://doi.org/10.1016/j.jcs.2022.103544).

**Amegbor, K.I., Van Biljon, A., Shargie, N., Tarekegne, A. & Labuschagne, M.T.** 2022. Heritability and associations among grain yield and quality traits in quality protein maize (QPM) and non-QPM hybrids. *Plants* 11: 713. DOI: [10.3390/plants11060713](https://doi.org/10.3390/plants11060713).

**Amegbor, I.K., Van Biljon, A., Shargie, N., Tarekegne, A. & Labuschagne, M.T.** 2022. Identifying quality protein maize inbred lines for improved maize nutritional value in southern Africa. *Foods* 11: 898. DOI: [10.3390/foods11070898](https://doi.org/10.3390/foods11070898).

**Athiyannan, N., Abrouk, M., Boshoff, W.H.P., Cauet, S., Rodde, N., Kudrna, D., Mohammed, N., Bettgenhaeuser, J., Botha, K., Derman, S., Wing, R.A., Prins, R. & Krattinger, S.G.** 2022. Long-read genome sequencing of bread wheat facilitates disease resistance gene cloning. *Nature Genetics* 54: 227-231. DOI: [10.1038/s41588-022-01022-1](https://doi.org/10.1038/s41588-022-01022-1).

**Bakare, O.O., Gokul, A., Fadaka, A.O., Wu, R., Niekerk, L., Barker, A.M., Keyster, M. & Klein, M.** 2022. Plant antimicrobial peptides (PAMPs): Features, applications, production, expression, and challenges. *Molecules* 27(12): 3703. DOI: [10.3390/molecules27123703](https://doi.org/10.3390/molecules27123703).

**Bakare, O.O., Gokul, A., Jimoh, M.O., Klein, A. & Keyster, M.** 2022. In silico discovery of biomarkers for the accurate and sensitive detection of *Fusarium solani*. *Frontiers in Bioinformatics* 87. DOI: 10.3389/fbinf.2022.972529.

**Bakare, O.O., Gokul, A. & Keyster, M.** 2022. Analytical studies of antimicrobial peptides as diagnostic biomarkers for the detection of bacterial and viral pneumonia. *Bioengineering* (Basel) 9(7): 305. DOI: 10.3390/bioengineering9070305. PMID: 35877356; PMCID: PMC9311714.

**Boshoff, W.H.P., Visser, B., Bender, C.M., Wood, A.R., Rothmann, L., Wilson, K., Hamilton-Attwell, V.L. & Pretorius, Z.A.** 2022. Fig rust caused by *Phakopsora nishidana* in South Africa. *Phytopathologia Mediterranea* 61(2): 283-298. DOI: 10.36253/phyto-13034.

**Boshoff, W.H.P., Wood, A.R., Visser, B., Bender, C.M., Joubert, L., Richter, J., Aime, M.C. & Pretorius, Z.A.** 2022. The life cycle of *Puccinia digitariae* on *Digitaria eriantha* and *Solanum* species in South Africa. *Mycologia* 114: 319-336. DOI: 10.1080/00275514.2022.2031493.

**Chemonges, M., Herselman, L., Pretorius, Z.A., Marè, A. & Boshoff, W.H.P.** 2022. Characterisation of stem rust resistance in the South African winter wheat cultivar PAN 3161. *Euphytica* 218: 139. DOI: 10.1007/s10681-022-03087-9.

**Chevalier, M., Chase, B.M., Quick, L.J. & Scott, L.** 2022. An atlas of southern African pollen types and their climatic affinities. *Palaeoecology of Africa* 35: 239-257.

**Crous, P.W., Sandoval-Denis, M., Costa, M.M., Groenewald, J.Z., Van Iperen, A.L., Starink-Willemse, M., Hernández-Restrepo, M., Kandemir, H., Ulaszewski, B., De Boer, W., Abdel-Azeem, A.M., Abdollahzadeh, J., Akulov, A., Bakhshi, M., Bezerra, J.D.P., Bhunjun, C.S., Câmara, M.P.S., Chaverri, P., Vieira, W.A.S., Decock, C.A., Gaya, E., Gené, J., Guarro, J., Gramaje, D., Grube, M., Gupta, V.K., Guarnaccia, V., Hill, R., Hirooka, Y., Hyde, K.D., Jayawardena, R.S., Jeewon, R., Jurjević, Ž., Korsten, L., Lamprecht, S.C., Lombard, L., Maharachchikumbura, S.S.N., Polizzi, G., Rajeshkumar, K.C., Salgado-Salazar, C., Shang, Q.-J., Shivas, R.G., Summerbell, R.C., Sun, G.Y., Swart, W.J., Tan, Y.P., Vizzini, A., Xia, J.W., Zare, R., González, C.D., Iturriaga, T., Savary, O., Coton, M., Coton, E., Jany, J.-L., Liu, C., Zeng, Z.-Q., Zhuang, W.-Y., Yu, Z.-H. & Thines, M.** 2022. *Fusarium* and allied fusarioid taxa (FUSA). 1. *Fungal Systematics and Evolution* 9: 161-200.

**Dabengwa, A.N., Archibald, S., Finch, J., Scott, L., Gillson, L. & Bond, W.J.** 2022. Sedimentary charcoal studies from southern Africa's grassy biomes: a potential resource for informing the management of fires and ecosystems. *African Journal of Range & Forage Science* 2022: 1-17. DOI: [10.2989/10220119.2021.2016965](https://doi.org/10.2989/10220119.2021.2016965).

**Daniel, A.I., Fadaka, A.O., Gokul, A., Bakare, O.O., Aina, O., Fisher, S., Burt, A.F., Mavumengwana, V., Keyster, M. & Klein, A.** 2022. Biofertilizer: The future of food security and food safety. *Microorganisms* 10: 1220. DOI: 10.3390/microorganisms10061220.

**Ertiro, B.T., Das, B., Kosgei, T., Tesfaye, A.T., Labuschagne, M.T., Worku, M.R., Olsen, M.S., Chaikam, V. & Gowda, M.** 2022. Relationship between grain yield and quality traits under optimum and low-nitrogen stressed environments in tropical maize. *Agronomy* 12: 438. DOI: 10.3390/agronomy12020438.

**Fisher, S., De Villers, D., Du Plessis, M., Hattingh, K., Saulte, C., Basson, G., Barker, A., Daniel, A.I., Al-Hashimi, A., Hitzeroth, A., Makhalanyane, T., Mavumengwana, V., Gokul, A., Keyster, M. & Klein, A.** 2022. Draft whole-genome sequence of *Penicillium simplicissimum* A4, a putative endophyte from *Echium plantagineum*. *Microbiology Resource Announcements* e00854.

**Gerrano, A.S., Mbuma, N.W., & Mumm, R.H.** 2022. Expression of nutritional traits in vegetable cowpea grown under various South African agro-ecological conditions. *Plants* 11(11): 13. DOI: 10.3390/plants11111422.

**Hlahla, J.M., Mafa, M.S., Van der Merwe, R., Alexander, O., Duvenhage, M.-M., Kemp, G. & Moloi, M.K.** 2022. The photosynthetic efficiency and carbohydrates responses of six edamame (*Glycine max.* L. Merrill) cultivars under drought stress. *Plants* 11(3): 394. DOI: 10.3390/plants11030394.

**Kloppe, T., Boshoff, W.H.P., Pretorius, Z.A., Lesch, D., Erdemel, B., Morgounov, A., Kuhnem, P., Murphy, P. & Cowger, C.** 2022. Virulence of *Blumeria graminis* f. sp. *tritici* in Brazil, South Africa, Turkey, Russia and Australia. *Frontiers in Plant Science* 13: article 954958. DOI: 10.3389/fpls.2022.954958.

**Lézine, A.-M. Ivory, S., Gosling, W. & Scott, L.** 2022. The African pollen database, state of the art. *Palaeoecology of Africa* 35: 5-12.

**Liatile, P.C., Potgieter, G. & Moloi, M.J.** 2022. A natural bio-stimulant consisting of a mixture of fish protein hydrolysates and kelp extract enhances the physiological, biochemical and growth responses of spinach under different water levels. *Plants* 11: 3374.

**Lombard, M., & Van Aardt, A.C.** 2022. Taking stock of foodplants growing in the Cradle of Humankind Fossil Hominin Site, South Africa. *African Archaeological Review* 39: 59-77. DOI: 10.1007/s10437-021-09470-6.

**Mafa, M.S., Rufetu, E., Alexander, O., Kemp, G. & Mohase, L.** 2022. Cell-wall structural carbohydrates reinforcements are part of the defence mechanisms of wheat against Russian

wheat aphid (*Diuraphis noxia*) infestation. *Plant Physiology and Biochemistry* 179: 168-178. DOI: 10.1016/j.plaphy.2022.03.018.

**Marè, A., Boshoff, W.H.P. & Herselman, L.** 2022. Phenotypic assessment and fungal gene expression of *Fusarium graminearum* in wheat. *Euphytica* 218: 113. DOI: 10.1007/s10681-022-03068-y.

**Masole, P., Steenhuisen, S. & Martin, G.D.** 2022. Current status of the invasive shrub *Berberis julianae* C.K. Schneid. (Berberidaceae) in Golden Gate Highlands National Park (Free State Province, South Africa). *South African Journal of Botany* 150: 99-105. DOI: 10.1016/j.sajb.2022.07.010.

**Matova, P.M., Kamutando, C.N., Kutwayo, D., Magorokosho, C. & Labuschagne, M.** 2022. Fall armyworm response of maize parental lines, experimental hybrids, and commercial cultivars in southern Africa. *Agronomy* 12: 1463. DOI: [10.3390/agronomy12061463](https://doi.org/10.3390/agronomy12061463).

**Matova, P.M., Kamutando, C.N., Magorokosho, C., Mutari, B. & Labuschagne, M.** 2022. Adaptability and stability analysis of commercial cultivars, experimental hybrids and lines under natural fall armyworm infestation in Zimbabwe using different stability models. *Agronomy* 12: 1724. DOI: [10.3390/agronomy12071724](https://doi.org/10.3390/agronomy12071724).

**Mbuma, N.W., Gerrano, A.S., Lebaka, N. & Labuschagne, M.T.** 2022. Interrelationship between grain yield components and nutritional quality traits in cowpea genotypes. *South African Journal of Botany* 150: 34-43. DOI: [10.1016/j.sajb.2022.07.006](https://doi.org/10.1016/j.sajb.2022.07.006).

**Mbuma, N.W., Labuschagne, M., Siwale, J. & Hugo, A.** 2022. Characterization of Southern African bambara groundnut germplasm collection for nutritional value and fatty acid composition. *Journal of Food Composition and Analysis* 109: 104477. DOI: [10.1016/j.jfca.2022.104477](https://doi.org/10.1016/j.jfca.2022.104477).

**McInturf, S.A., Khan, M.A., Gokul, A., Castro-Guerrero, N.A., Hoehner, R., Li, J., Margault, H., Fichman, Y., Kunz, H.H., Goggin, F.L., Keyster, M., Nechushtai, R., Mittler, R. & Mendoza-Cózatl, D.G.** 2022. Cadmium interference with iron sensing reveals transcriptional programs sensitive and insensitive to reactive oxygen species. *Journal of Experimental Botany*. Sep 9: erab393. DOI: 10.1093/jxb/erab393.

**Mekonnen, T.W., Gerrano, A.S., Mbuma, N.W. & Labuschagne, M.T.** 2022. Breeding of cowpea as highly nutritious and climate resilient vegetable in sub-Saharan Africa: progress, opportunities, and challenges. *Plants* 11: 1583. DOI: [10.3390/plants11121583](https://doi.org/10.3390/plants11121583).

**Mekonnen, T.W., Mekbib, F., Amsalu, B., Gedil, M. & Labuschagne, M.** 2022. Breeding implications of nodulation performance and root structure under natural inoculation for soil fertility enhancement and sustainable cowpea production. *Frontiers in Sustainable Food Systems* 6: 1076760. DOI: [10.3389/fsufs.2022.1076760](https://doi.org/10.3389/fsufs.2022.1076760).

- Mekonnen, T.W., Mekbib, F., Amsalu, B., Gedil, M. & Labuschagne, M.** 2022. Genotype by environment interaction and grain yield stability of drought tolerant cowpea landraces in Ethiopia. *Euphytica* 218: 57. DOI: [10.1007/s10681-022-03011-1](https://doi.org/10.1007/s10681-022-03011-1).
- Mekonnen, T.W., Mekbib, F., Amsalu, B., Gedil, M. & Labuschagne, M.** 2022. Implications of qualitative trait diversity for future cowpea improvement and genetic resource conservation. *South African Journal of Botany* 151: 763-773. DOI: [10.1016/j.sajb.2022.10.047](https://doi.org/10.1016/j.sajb.2022.10.047).
- Moloi, M.J. & Khoza, B.M.** 2022. The effect of selenium foliar application on the physiological responses of edamame under different water treatments. *Agronomy* 12: 2400.
- Mphela, W.M., Laurie, S.M., Minnaar-Ontong, A. & Bihon, W.** 2022. Development and screening of Fusarium wilt resistant lines in sweet potato [*Ipomoea batatas* (L.) Lam]. *Euphytica* 218: 68.
- Ndoro, O., Magorokosho, C., Setimela, P., Kamutando, C. & Labuschagne, M.** 2022. Identification of exotic temperate maize inbreds for use in tropical breeding programs. *Euphytica* 218: 164. DOI: [10.1007/s10681-022-03119-4](https://doi.org/10.1007/s10681-022-03119-4).
- Nkomo, M., Gokul, A., Ndimba, R., Badiwe, M., Keyster, M. & Klein, A.** 2022. Piperonylic acid alters growth, mineral content accumulation and ROS scavenging capacity in chia seedlings. *Annals of Botany Plants* 14(3). DOI: [10.1093/aobpla/plac025](https://doi.org/10.1093/aobpla/plac025).
- Olckers, S., Osthoff, G., Guzmán, C., Wentzel, B., Van Biljon, A. & Labuschagne, M.** 2022. Drought and heat stress effects on gluten protein composition and its relation to bread-making quality in wheat. *Journal of Cereal Science* 108: 103562. DOI: [10.1016/j.jcs.2022.103562](https://doi.org/10.1016/j.jcs.2022.103562).
- Olckers, S.-L., Osthoff, G., Ng, P.K.W., Van Biljon, A. & Labuschagne, M.** 2022. The impact of low nitrogen conditions on the chemical composition and flour pasting properties of quality protein maize. *Cereal Research Communications* 50: 1117-1125. DOI: [10.1007/s42976-022-00253-6](https://doi.org/10.1007/s42976-022-00253-6).
- Park, R.F., Boshoff, W.H.P., Cabral, A.L., Chong, J., Martinelli, J.A., McMullen, M., Mitchell-Fetch, J.W., Paczos-Grzęda, E., Prats, E., Roake, J., Sowa, S., Ziems, L. & Singh, D.** 2022. Breeding oat for resistance to the crown rust pathogen *Puccinia coronata* f. sp. *avenae*: achievements and prospects. *Theoretical and Applied Genetics* 135: 3709-3734. DOI: [10.1007/s00122-022-04121-z](https://doi.org/10.1007/s00122-022-04121-z).
- Rothmann, L.A. & McLaren, N.W.** 2022. Prevalence of *Sclerotinia sclerotiorum* sclerotia recovered from soybean and sunflower. *Journal of Phytopathology* 170: 605-613. DOI: [10.1111/jph.13124](https://doi.org/10.1111/jph.13124)
- Sadler, R., Parker, T., Verboom, G.A., Ellis, A.G., Jackson, M., Van Zyl, J., Manning, J. & Bergh, N.G.** 2022. A molecular phylogeny of Calenduleae (Asteraceae) supports the transfer of

*Dimorphotheca polyptera* DC. to *Osteospermum* L. *South African Journal of Botany* 151: 234-245.

**Scott, L.** 2022. Rise of the Palaeoecology of Africa series. *Palaeoecology of Africa* 35: 1-4. DOI: 10.1201/9781003162766-1.

**Scott, L., Gil-Romera, G., Marais, E. & Brook, G.A.** 2022. Holocene environmental change along the central Namib Desert escarpment derived from hyrax and owl dung. *Review of Palaeobotany and Palynology* 305: 104746. DOI: 10.1016/j.revpalbo.2022.104746.

**Scott, L., Sobol, M., Neuman, F.H., Gil-Romera, G., Fernández-Jalvo, Y., Bousman, C.B., Horwitz, L.K. & Van Aardt, A.C.** 2022. Late Quaternary palaeoenvironments in the central semi-arid region of South Africa from pollen in cave, pan, spring, stream and dung deposits. *Quaternary International* 614: 84-97. DOI: 10.1016/j.quaint.2020.10.065.

**Siwale, J., Labuschagne, M., Gerrano, A.S. & Mbuma, N.W.** 2022. Phenotypic diversity and characterization of the southern African bambara groundnut germplasm collection for grain yield and yield components. *Agronomy* 12: 1811. DOI: [10.3390/agronomy12081811](https://doi.org/10.3390/agronomy12081811).

**Siwale, J., Labuschagne, M., Gerrano, A.S., Paterne, A., & Mbuma, N.W.** 2022. Variation in protein content, starch components, selected minerals and their bioavailability in bambara groundnut accessions. *Journal of Food Composition and Analysis*. 115: 104991. DOI: 10.1016/j.jfca.2022.104991.

**Sobol, M., Chazan, M., Scott, L. & Finkelstein, S.A.** 2022. Characterizing the Meghalayan Stage in southern Africa: a multiproxy record of paleoenvironmental change at the southern margin of the Kalahari. *Quaternary International* 614: 98-110. DOI: [10.1016/j.quaint.2021.03.013](https://doi.org/10.1016/j.quaint.2021.03.013).

**Spelman, Z., Visser, B., Terefe, T., Pretorius, Z.A. & Boshoff, W.H.P.** 2022. Pathogenicity and microsatellite characterization of *Puccinia hordei* in South Africa. *Crop Protection* 158: 106014. DOI: 10.1016/j.cropro.2022.106014.

**Szabo, L.J., Olivera, P.D., Wanyera, R., Visser, B. & Jin, Y.** 2022. Development of a diagnostic assay for differentiation between genetic groups in Clades I, II, III, and IV of *Puccinia graminis* f. sp. *tritici*. *Plant Disease* 106: 2211-2220. DOI: 10.1094/PDIS-10-21-2161-RE.

**Tembo, E., Minnaar-Ontong, A., Menkir, A., Marais, G., Magorokosho, C. & Labuschagne, M.** 2022. Inheritance of resistance to *Fusarium verticillioides* ear rot in maize inbred lines of southern, West and Central Africa origin. *Crop Science* 62: 1818-1833. DOI: [10.1002/csc2.20776](https://doi.org/10.1002/csc2.20776).

**Terefe, T.G., Visser, B., Pretorius, Z.A. & Boshoff, W.H.P.** 2022. Physiologic races of *Puccinia triticina* detected on wheat in South Africa from 2017 to 2020. *European Journal of Plant Pathology* DOI: 10.1007/s10658-022-02583-x.

**Tesfahuney, W.A., Swart, W.J., Van Rensburg, L.D., Wolmarans, K., Walker, S., & Yu, H.C.** 2022. Soil microbial activity as influenced by crusted runoff strip length and mulch cover under in-field rainwater harvesting (IRWH). *Physics and Chemistry of the Earth* 128: 103258.

**Tóth, B., Moloi, M.J., Mousavi, S.M.N., Illés, Á., Bojtor, C., Szőke, L. & Nagy, J.** 2022. The evaluation of the effects of Zn, and amino acid-containing foliar fertilizers on the physiological and biochemical responses of a Hungarian fodder corn hybrid. *Agronomy* 12: 1523.

**Van Schalkwyk, H.J., Adams, T., Persoons, A., Boshoff, W.H.P., Wanyera, R., Hovmøller, M., Uauy, C., Boyd, L., Pretorius, Z.A., Prins, R. & Saunders, D.G.O.** 2022. Pathogenomic analyses of *Puccinia striiformis* f. sp. *tritici* supports a close genetic relationship between South and East Africa. *Phytopathology* 71: 279-288. DOI: [10.1111/ppa.13468](https://doi.org/10.1111/ppa.13468).

**Zipfel, B., Montgomery, C., Neumann, F.H., Scott, L., Choiniere, J. & Hancox, J.P.** 2022. Overlooked or unimportant? An overview of the coprolite collections at the University of the Witwatersrand, Johannesburg, South Africa. *The Museum Journal* 65.2: 1-16. DOI: [10.1111/cura.12531](https://doi.org/10.1111/cura.12531).

### **Books/Chapters in Books 2022**

**Canavan, K., Canavan, S., Clark, V.R., Gwate, O., Mapaura, A., Richardson, D.M., Steenhuisen, S. & Martin, G.D.** 2022. Invasive alien plants in the montane areas of South Africa: Impacts and management options. In: *Human-Nature Interactions. Exploring nature's values across landscapes*. L. Misiune, D. Depellegrin & L.E. Vigl (Eds). Switzerland: Springer Nature. pp 169-180.

**Gosling, W., Lézine, A-M. & Scott, L.** 2022. Quaternary vegetation – The African Pollen Database. In: *Palaeoecology of Africa. International Yearbook of Landscape Evolution and Palaeoenvironments*. Volume 35. J. Runge (Ed). CRC Press, Taylor & Francis Group. pp 417. ISSN 2372-5907.

**Horwitz, L.K., Avery, M.D., Bamford, M.K., Berna, F., Brink, J.S., Ecker, M., Fernandez-Jalvo, Y., Goldberg, P., Holt, S., Lee-Thorp, J., Matmon, A., Pickering, R., Porat, N., Rossouw, L., Scott, L., Shaar, R. & Chazan, M.** 2022. Wonderwerk Cave, Northern Cape Province: An Early-Middle Pleistocene Paleoenvironmental sequence for the interior of South Africa. In: *African Paleoenvironmental and Human Evolution*. S.C. Reynolds & R. Bobe (Eds). Cambridge University Press. Cambridge, pp. 141-160. DOI: [10.1017/9781139696470](https://doi.org/10.1017/9781139696470).

**Niekerk, L., Carelse, M.F., Bakare, O.O., Klein, A., Gokul, A., & Keyster, M.** 2022. Application of gene mining and editing technologies for agricultural research and breeding. In: *Technologies*

*in Plant Biotechnology and Breeding of Field Crops*. Kamaluddin, U. Kiran & M.Z. Abdin (Eds.). Singapore: Springer. pp 41-65.

### **Industry papers 2022**

**Boshoff, W.H.P., Visser, B. & Pretorius, Z.A.** 2022. Barley leaf rust - latest research on rust fungus (in Afrikaans). *Koringfokus* 40.4 Jul/Aug 10-11. (Awarded best article in edition)

**Pretorius, Z.A. & Boshoff, W.H.P.** 2022. In: History of Plant Pathology in South Africa. *Cereal Rust Pathology*: 85-89. 1<sup>st</sup> Edition. Briza Publications, Pretoria, South Africa.

**Terefe, T. & Boshoff, W.H.P.** 2022. New leaf rust races detected on wheat in South Africa. *SA-Grain* 49(5): 48-49.

**Visser, B., Boshoff, W.H.P. & Pretorius, Z.A.** 2022. Lessons from the past: herbarium samples share light on wheat rust in South Africa (in Afrikaans). *Koringfokus* 40.6 Nov/Dec 22-23.