

Curriculum Vitae

Dr Daniel Menezes Blackburn

Assistant/Associate Professor of Soil Microbiology
 Department of Soils, Water and Agricultural Engineering
 College of Agricultural and Marine Sciences
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 Web-pages: [ORCID](#) – [G. Scholar](#) – [Research gate](#) - [WoS/Publons](#) - [Scopus](#)



1. PERSONAL DETAILS

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| Full name | Daniel Menezes Blackburn |
| Present position | Assist. Professor, Soil Microbiology – SWAE-CAMS-SQU Date of appointment 01/09/2017 |
| Address | Department of Soils, Water and Agricultural Engineering – CAMS Sultan Qaboos University, PO Box 34, Al-khoud 123, Sultanate of Oman |
| Date of birth | 07/06/1977 |
| Nationality | Brazil and USA |
| Marital and family status | Married with two daughters |
| Degrees awarded (See certificates in Annex –pg 20) | PhD 2012 – • Doctor in Sciences of Natural Resources – Universidad de La Frontera (UFRO). Temuco, Chile. and • Doctor in Sciences of Environmental Resources - Sandwich PhD in University of Naples (UNINA), Italy. MSc 2002 - Master in Agronomy – Universidade Federal Rural de Pernambuco (UFRPE). Recife, Brazil. BSc 1999 - Agronomic Engineering - Universidade Federal Rural de Pernambuco (UFRPE). Recife, Brazil. |
| Employment history (See certificates in Annex –pg 27) | 09/2017 – to date, Assistant Professor, Soil Microbiology, SWAE - Department of Soils, Water and Agricultural Engineering – CAMS, Sultan Qaboos University (Oman) 03/2014 – 09/2017, Senior Research Associate, Lancaster Environment Centre, Lancaster University. Project: Organic Phosphorus Utilization in Soils. 9/2012- 03/2014 - Humboldt fellow at Department of Bioprocess Engineering, Max Rubner-Institut, Karlsruhe, Germany. Fellowship and Awards: Georg Forster Research Fellowship - Alexander von Humboldt foundation. 3/2008 – 06/2012, Doctoral student at Universidad de la Frontera (UFRO): Fellowship and Awards: UFRO and Chilean Government (CONICYT). 05/2010 – 12/2011, Doctoral Internship for double doctorate title at University of Naples (UNINA): Fellowship and Awards: IILA grant. |
| Key expertise | Soil microbiology, Rhizosphere science, Plant nutrition, Soil phosphorus, Soil Salinity, Soil Sulphur |
| Websites ORCID G. Scholar Research gate | https://orcid.org/my-orcid?orcid=0000-0002-8142-9655 https://scholar.google.es/citations?user=r2RJt9IAAAAJ&hl=en https://www.researchgate.net/profile/Daniel-Menezes-Blackburn |

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| WoS/Publons | https://publons.com/researcher/3114786/daniel-menezes-blackburn/ |
| Scopus | https://www.scopus.com/authid/detail.uri?authorId=36669107100 |

| 3. Teaching | | | |
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| | Course code and title | Type of courses | Years/Semesters taught |
| 1 | SWAE2201 Introduction to soil and water | Major requirement | 17FL, 18SP, 19SP, 18FL |
| 2 | SWAE3411 Environmental Soil Microbiology | Major requirement | 18SP, 19SP, 20SP, 21SP |
| 3 | SWAE4401 Water and Nutrients in Soil-Plant Environment | Major requirement | 17FL, 19FL, 20FL |
| 4 | SWAE4412 Management of Salt affected Soils | Major requirement | 19FL, 18FL |
| 5 | SWAE3111 Waste management for soil applications | Major elective | 21SP |
| 6 | SWAE6403 Advanced Topics in Soil-Plant Environment | Major requirement | 18FL, 19FL, 20FL |
| 7 | SWAE4110 Winter tour | Major requirement | 19SP |
| 8 | SWAE4902 SWAE Research Projects | Major elective | 18FL, 19SP, 19FL, 20SP, 20SM |
| 9 | SWAE6009 Advanced Topics in Soils, Water and. Agricultural Engineering | Major elective | 18FL, 19FL |

| 4. Scholarly Activities | | |
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| Selected Refereed Journal Publications | | |
| Menezes-Blackburn, D., Bol, R., Klumpp, E., Missong, A., Nischwitz, V. and Haygarth, P.M., 2021. Citric Acid Effect on the Abundance, Size and Composition of Water-Dispersible Soil Colloids and Its Relationship to Soil Phosphorus Desorption: A Case Study. <i>Journal of Soil Science and Plant Nutrition</i> , pp.1-11. | | 3.872 |
| Al-Ismaily, S., Al-Mayhai, A., Al-Busaidi, H., Kacimov, A., Blackburn, D., Al-Maktoumi, A. and Al-Siyabi, B., 2021. Soil skills challenge: A problem-based field competition towards active learning for BSc. Geoscience students. <i>Geoderma</i> , 385, p.114903. | | 6.114 |
| Menezes-Blackburn, D., Al-Ismaily, S., Al-Mayahi, A., Al-Siyabi, B., Al-Kalbani, A., Al-Busaid, H., Al-Naabi, I., Al-Mazroui, M. and Al-Yahyai, R., 2020. Impact of a Nature-Inspired Engineered Soil Structure on Microbial Diversity and Community Composition in the Bulk Soil and Rhizosphere of Tomato Grown Under Saline Irrigation Water. <i>Journal of Soil Science and Plant Nutrition</i> , 21(1), pp.173-186. | | 3.872 |
| Menezes-Blackburn, D., Sun, J., Lehto, N.J., Zhang, H., Stutter, M., Giles, C.D., Darch, T., George, T.S., Shand, C., Lumsdon, D. and Blackwell, M., 2019. Simultaneous quantification of soil phosphorus labile pool and desorption kinetics using DGTs and 3D-DIFS. <i>Environmental science & technology</i> , 53(12), pp.6718-6728. | | 7.864 |
| Almeida, D.S., Menezes-Blackburn, D., Zhang, H., Haygarth, P.M. and Rosolem, C.A., 2019. Phosphorus availability and dynamics in soil affected by long-term ruzigrass cover crop. <i>Geoderma</i> , 337, pp.434-443. | | 6.114 |
| Almeida, D.S., Menezes-Blackburn, D., Turner, B.L., Wearing, C., Haygarth, P.M. and Rosolem, C.A., 2018. <i>Urochloa ruziziensis</i> cover crop increases the cycling of soil inositol phosphates. <i>Biology and Fertility of Soils</i> , 54(8), pp.935-947. | | 6.432 |
| Vallejo, L.H., Buendía, G., Elghandour, M.M., Menezes-Blackburn, D., Greiner, R. and Salem, A.Z., 2018. The effect of exogenous phytase supplementation on nutrient digestibility, ruminal fermentation and phosphorous bioavailability in Rambouillet sheep. <i>Journal of the Science of Food and Agriculture</i> , 98(13), pp.5089-5094. | | 2.614 |
| Almeida, D.S., Menezes-Blackburn, D., Rocha, K.F., de Souza, M., Zhang, H., Haygarth, P.M. and Rosolem, C.A., 2018. Can tropical grasses grown as cover crops improve soil phosphorus availability?. <i>Soil Use and Management</i> , 34(3), pp.316-325. | | 2.95 |
| Giles, C.D., Richardson, A.E., Cade-Menun, B.J., Mezeli, M.M., Brown, L.K., Menezes-Blackburn, D., Darch, T., Blackwell, M.S., Shand, C.A., Stutter, M.I. and Wendler, R., 2018. Phosphorus acquisition by | | 4.1 |

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| citrate-and phytase-exuding <i>Nicotiana tabacum</i> plant mixtures depends on soil phosphorus availability and root intermingling. <i>Physiologia plantarum</i> , 163(3), pp.356-371. | |
| Haygarth, P.M., Hinsinger, P. and Blackburn, D. , 2018. Organic phosphorus: potential solutions for phosphorus security. <i>Plant and soil</i> 427(1), pp.1-3 | 4.192 |
| George, T.S., Giles, C.D., Menezes-Blackburn, D. , Condron, L.M., Gama-Rodrigues, A.C., Jaisi, D., Lang, F., Neal, A.L., Stutter, M.I., Almeida, D.S. and Bol, R., 2018. Organic phosphorus in the terrestrial environment: a perspective on the state of the art and future priorities. <i>Plant and soil</i> , 427(1), pp.191-208. | 4.192 |
| Darch, T., Giles, C.D., Blackwell, M.S., George, T.S., Brown, L.K., Menezes-Blackburn, D. , Shand, C.A., Stutter, M.I., Lumsdon, D.G., Mezeli, M.M. and Wendler, R., 2018. Inter-and intra-species intercropping of barley cultivars and legume species, as affected by soil phosphorus availability. <i>Plant and soil</i> , 427(1), pp.125-138. | 2.969 |
| Menezes-Blackburn, D. , Giles, C., Darch, T., George, T.S., Blackwell, M., Stutter, M., Shand, C., Lumsdon, D., Cooper, P., Wendler, R. and Brown, L., 2018. Opportunities for mobilizing recalcitrant phosphorus from agricultural soils: a review. <i>Plant and soil</i> , 427(1), pp.5-16. | 4.192 |
| Jorquera, M.A., Gabler, S., Inostroza, N.G., Acuña, J.J., Campos, M.A., Menezes-Blackburn, D. and Greiner, R., 2018. Screening and characterization of phytases from bacteria isolated from Chilean hydrothermal environments. <i>Microbial ecology</i> , 75(2), pp.387-399. | 4.552 |
| Giles, C.D., Dupuy, L., Boitt, G., Brown, L.K., Condron, L.M., Darch, T., Blackwell, M.S.A., Menezes-Blackburn, D. , Shand, C.A., Stutter, M.I. and Lumsdon, D.G., 2018. Root development impacts on the distribution of phosphatase activity: Improvements in quantification using soil zymography. <i>Soil Biology and Biochemistry</i> , 116, pp.158-166. | 7.609 |
| Mezeli, M.M., Menezes-Blackburn, D. , George, T.S., Giles, C.D., Neilson, R. and Haygarth, P.M., 2017. Effect of citrate on <i>Aspergillus niger</i> phytase adsorption and catalytic activity in soil. <i>Geoderma</i> , 305, pp.346-353. | 6.114 |
| Menegário, A.A., Yabuki, L.N.M., Luko, K.S., Williams, P.N. and Blackburn, D.M. , 2017. Use of diffusive gradient in thin films for in situ measurements: a review on the progress in chemical fractionation, speciation and bioavailability of metals in waters. <i>Analytica chimica acta</i> , 983, pp.54-66. | 6.558 |
| Giles, C.D., George, T.S., Brown, L.K., Mezeli, M., Shand, C.A., Richardson, A.E., Mackay, R., Wendler, R., Darch, T., Menezes-Blackburn, D. and Cooper, P., 2017. Linking the depletion of rhizosphere phosphorus to the heterologous expression of a fungal phytase in <i>Nicotiana tabacum</i> as revealed by enzyme-labile P and solution ³¹ P NMR spectroscopy. <i>Rhizosphere</i> , 3, pp.82-91. | 3.129 |
| Giles, C.D., George, T.S., Brown, L.K., Mezeli, M.M., Richardson, A.E., Shand, C.A., Wendler, R., Darch, T., Menezes-Blackburn, D. , Cooper, P. and Stutter, M.I., 2017. Does the combination of citrate and phytase exudation in <i>Nicotiana tabacum</i> promote the acquisition of endogenous soil organic phosphorus?. <i>Plant and soil</i> , 412(1-2), pp.43-59. | 4.192 |
| Giles, C.D., Brown, L.K., Adu, M.O., Mezeli, M.M., Sandral, G.A., Simpson, R.J., Wendler, R., Shand, C.A., Menezes-Blackburn, D. , Darch, T. and Stutter, M.I., 2017. Response-based selection of barley cultivars and legume species for complementarity: root morphology and exudation in relation to nutrient source. <i>Plant Science</i> , 255, pp.12-28. | 4.729 |
| Menezes-Blackburn, D. , Paredes, C., Zhang, H., Giles, C.D., Darch, T., Stutter, M., George, T.S., Shand, C., Lumsdon, D., Cooper, P. and Wendler, R., 2016. Organic acids regulation of chemical-microbial phosphorus transformations in soils. <i>Environmental science & technology</i> , 50(21), pp.11521-11531. | 7.864 |
| Menezes-Blackburn, D. , Zhang, H., Stutter, M., Giles, C.D., Darch, T., George, T.S., Shand, C., Lumsdon, D., Blackwell, M., Wearing, C. and Cooper, P., 2016. A holistic approach to understanding the desorption of phosphorus in soils. <i>Environmental science & technology</i> , 50(7), pp.3371-3381. | 7.864 |

| Journal Editorial activities | | |
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| Journal | Role | IF |
| <i>Journal of Agricultural and Marine Sciences</i> (JAMS). https://journals.squ.edu.om/index.php/jams/about/editorialTeam | Associate Editor- 2019 to date | - |
| <i>Agronomy</i> (ISSN 2073-4395) https://www.mdpi.com/journal/agronomy/special_issues/mineral_agriculture | Special Issue Editor - Special Issue "The Role of Mineral Elements in the Crop Growth and Production" submissions: 30 April 2022. | 3.417 |
| <i>Journal Environmental Quality</i> - American Society of Agronomy, Crop Science Society of America, and Soil Science | Associate Editor – 2020 to present | 2.751 |

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| Society of America https://acsess.onlinelibrary.wiley.com/journal/15372537/editorial-board/editorial-board | | |
| <i>Plant and Soil</i> - https://link.springer.com/journal/11104/volumes-and-issues/427-1 | Special Issue Editor - Organic Phosphorus: Potential Solutions for Phosphorus Security (2018) | 4.192 |
| <i>Revista Brasileira de Ciência do Solo</i> – Brazilian Journal of Soil Science | Associate Editor – 2017 to 2020 | 1.683 |

| Research projects - Selected | | | | | |
|------------------------------|------|---|--------------------------------------|---------------|-------------|
| | Year | Project title | Funded by | Fund value | |
| | | | | OMR | USD |
| 1 | 2021 | Integrating modern soil and water smart technologies for salinity management in the Sultanate of Oman, His Majesty Fund (SR/AGR/SWAE /21/01) | His Majesty Trust | 73K | 190k |
| 2 | 2020 | Elemental sulfur (Special-S product) field application for reclamation of saline-sodic soils of Al Batinah – Oman (CR/AGR/SWAE/20/01) | Shell Development Oman - Consultancy | 28.5k | 74k |
| 3 | 2019 | Thermostable phytases and carbohydrases of omani desert soils and their potential for biotechnological application as poultry feed supplements (RC/RG-AGR/SWAE/19/01) | The Research Council, Oman (TRC) | 20k | 52.9k |
| 4 | 2019 | Prospecting the use of elemental sulfur product (Special-S) as a soil amendment for the reclamation of saline-sodic soils of Al Batinah – Oman (CR/AGR/SWAE/19/02) | Shell Development Oman - Consultancy | 26K | 67.5K |
| 5 | 2019 | Further Research stay at Max Rubner-Institut Karlsruhe, Germany. From 17/06/2019 to 16/08/2019. | Alexander von Humboldt foundation | 3.9K | 10k |
| 6 | 2019 | Screening of Omani desert soils for thermostable phytases (IG/AGR/SWAE/19/02) | CAMS - Internal Grant | 6.6K | 17K |
| 7 | 2018 | Exploring the biological and chemical feedbacks between soil salinity and phosphorus fertility for Omani soils (RF/AGR/SWAE/18/01) | Deanship of Research fund - SQU | 3K | 7.7K |
| | | | Total | 163.2k | 424k |

5. Collaborations and Consultancies (selected)

| | Institute/university | Country |
|--|----------------------------|-----------|
| 1- Prof Philip Haygarth, Prof Hao Zhang, Dr Malika Mezeli, Dr Catherine Wearing | Lancaster University | UK |
| 2- Dr Timothy George, Dr Courtney Giles, Dr Larry Brown, Dr Charlie Shand, Dr Mark Stutter, M.I | The James Hutton Institute | UK |
| 3- Dr Mantin, Blackwell, Dr Tegan Darch, Dr John McGrath | Rhotamsted Research | UK |
| 4- Dr Ralf Greiner, Dr Ursula Konietzny, Dr Stephanie Glabber | Max Rubner Intitut | Germany |
| 5- Dr Rolan Bol, Dr Erwin Klumpp, Dr Anna Misong, Dr Volker Nischwitz | Forchgszentrum Juelich | Germany |
| 6- Dr Philippe Hinsinger | INRA-UMR Montpellier | France |
| 7- Dr Alan Richardson | CSIRO | Australia |
| 8- Dr Niklas Letho, Prof Leo Condron | Lincoln University | Newzeland |
| 9- Prof Maria de la Luz Mora, Dr Milko Jorquera, Dr Jaqueline Acunha, Dr Cecilia Paredes, Dr Alex Seguel | UFRO University | Chile |
| 10- Dr Cirrile Alais, Dr Mandie McFarlane | Shell Thiogro | Canada |

