

Alice Budai

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CURRICULUM VITAE

Education and Credentials

PhD in Soil Science, 2017 – Norwegian University of Life Sciences (NMBU),
Department of Environmental Sciences, Ås

MSc in Agroecology, 2009 – Norwegian University of Life Sciences (UMB), Ås

BSc in Chemistry, 2003 – University of California, Santa Cruz (UCSC)

Employment History

Researcher, 2009 to current – Department of Environment and Climate, Norwegian
Institute of Bioeconomy Research (NIBIO)

Research Assistant, 2009 – Department of Biology, Oslo University / Department of
Plant and Environmental Sciences (UMB)

Research Assistant, 2006 to 2007 – Department of Enzymology, Hungarian Academy
of Sciences (MTA), Budapest, Hungary

Volunteer Laborer, 2005 to 2006 – La Milpa Organica Farm, San Diego, California,
USA

Research Assistant, 2003 to 2005 – Arena pharmaceuticals, San Diego, California,
USA

Research Technician, 2002 to 2003 – Department of Environmental Toxicology,
University of California Santa Cruz, California, USA

Current Research Themes

- Characterization of biochar properties with special emphasis on stability
- Utilization of biomass wastes for soil quality improvement
- Soil quality assessment methods

Projects

2018 – Biokull i for til sau – vil de spise det? Landbruksdirektoratet

2018 to 2019 – Karbonvekst: Redusert klimagassutslipp og bedre agronomi med bruk
av biokull ved gjødsling og kompostering. Landbruksdirektoratet

2018 to 2021 - CARBO-FERTIL - Implementing biochar-fertilizer solution in Norway
for climate and food production benefits. LAVUTSLIPP 2030 (WP leader)

Publications

- Budai, A., Calucci, L., Rasse, D.P., Strand, L.T., Pengerud, A., Wiedemeier, D., Abiven, S., Forte, C. 2017. Effects of pyrolysis conditions on Miscanthus and corncob chars: Characterization by IR, solid state NMR and BPCA analysis. *Journal of Analytical and Applied Pyrolysis*.
- Rasse, D.P., Budai, A., O'Toole, A., Ma, X., Rumpel, C., Abiven, S. 2017. Persistence in soil of Miscanthus biochar in laboratory and field conditions. *PLOS ONE*, 12(9), e0184383.
- Budai, A., Rasse, D.P., Lagomarsino, A., Lerch, T.Z., Paruch, L. 2016. Biochar persistence, priming and microbial responses to pyrolysis temperature series. *Biology and Fertility of Soils*, 1-13.
- Lopez-Capel, E., Zwart, K., Shackley, S., Postma, R., Stenstrom, J., Rasse, D.P., Budai, A., Glaser, B.J. 2016. Biochar Properties in: *Biochar in European Soils and Agriculture: Science and Practice*, (Eds.) S. Shackley, R. G., K. Zwart, B. Glaser, Routledge. London and New York, pp. 41-72.
- Tammeorg, P., Bastos, A.C., Jeffery, S., Rees, F., Kern, J., Graber, E.R., Ventura, M., Kibblewhite, M., Amaro, A., Budai, A., Cordovil, C.M.d.S., Domene, X., Gardi, C., Gascó, G., Horák, J., Kammann, C., Kondrlova, E., Laird, D., Loureiro, S., Martins, M.A.S., Panzacchi, P., Prasad, M., Prodana, M., Puga, A.P., Ruyschaert, G., Sas-Paszt, L., Silva, F.C., Teixeira, W.G., Tonon, G., Delle Vedove, G., Zavalloni, C., Glaser, B., Verheijen, F.G.A. 2016. Biochars in soils: towards the required level of scientific understanding. *Journal of Environmental Engineering and Landscape Management*, 1-16.
- Ma, X., Zhou, B., Budai, A., Jeng, A., Hao, X., Wei, D., Zhang, Y., Rasse, D. 2016. Study of Biochar Properties by Scanning Electron Microscope – Energy Dispersive X-Ray Spectroscopy (SEM-EDX). *Communications in Soil Science and Plant Analysis*, 47(5), 593-601.
- Budai, A., Wang, L., Gronli, M., Strand, L.T., Antal, M.J., Abiven, S., Dieguez-Alonso, A., Anca-Couce, A., Rasse, D.P., 2014. Surface Properties and Chemical Composition of Corncob and Miscanthus Biochars: Effects of Production Temperature and Method. *Journal of Agricultural and Food Chemistry* 62, 3791-3799.
- Budai, A., Zimmerman, A.R., Cowie, A.L., Webber, J.B.W., Singh, B.P., Glaser, B., Masiello, C.A., Andersson, D., Shields, F., Lehmann, J., Camps Arbestain, M., Williams, M., Sohi, S., Joseph, S. 2013. Biochar Carbon Stability Test Method: An assessment of methods to determine biochar carbon stability, International Biochar Initiative (IBI) Westerville, OH.
- Senbayram, M., Chen, R., Budai, A., Bakken, L., Dittert, K. 2012. N₂O emission and the N₂O/(N₂O + N₂) product ratio of denitrification as controlled by available carbon substrates and nitrate concentrations. *Agriculture Ecosystems & Environment*, 147, 4-12.
- Shi, X., Chabarek, K., Budai, A., Zhu, Z. 2003. Iron requirement for GAL gene induction in the yeast *Saccharomyces cerevisiae*. *Journal of Biological Chemistry*, 278, 43110-43113.