

Uniaxial compression behaviour and soil physical quality of topsoils under conventional and conservation tillage J. Rücknagel, A. Rademacher, P. Götze, B. Hofmann and O. Christen . . . . .	1
Silicic acid as a dispersibility enhancer in a Fe-oxide-rich kaolinitic soil clay M.N. Nguyen, F. Picardal, S. Dultz, T.T.N. Dam, A.V. Nguyen and K.M. Nguyen . . . . .	8
Multi-scale correlations between soil hydraulic properties and associated factors along a Brazilian watershed transect S. Dongli, C. Qian, L.C. Timm, S. Beskow, H. Wei, T.L. Caldeira and L.M. de Oliveira . . . . .	15
Effects of elevated CO <sub>2</sub> and drought on the microbial biomass and enzymatic activities in the rhizospheres of two grass species in Chinese loess soil S. Xue, X. Yang, G. Liu, L. Gai, C. Zhang, C.J. Ritsema and V. Geissen . . . . .	25
Modelling the topsoil carbon stock of agricultural lands with the Stochastic Gradient Treeboost in a semi-arid Mediterranean region C. Schillaci, L. Lombardo, S. Saia, M. Fantappiè, M. Märker and M. Acutis . . . . .	35
Soil water infiltration affected by topsoil thickness in row crop and switchgrass production systems S. Zaibon, S.H. Anderson, A.L. Thompson, N.R. Kitchen, C.J. Gantzer and S.I. Haruna . . . . .	46
Seasonal and depth variation of soil chemical and biological properties in alfalfa crops irrigated with treated wastewater and saline groundwater M. Adrover, G. Moyà and J. Vadell . . . . .	54
Stimulatory effect of exogenous nitrate on soil denitrifiers and denitrifying activities in submerged paddy soil L. Wang, R. Sheng, H. Yang, Q. Wang, W. Zhang, H. Hou, J. Wu and W. Wei . . . . .	64
Compositional characteristics of organic matter and its water-extractable components across a profile of organically managed soil P. Sharma, Y. Laor, M. Raviv, S. Medina, I. Saadi, A. Krasnovsky, M. Vager, G.J. Levy, A. Bar-Tal and M. Borisover . . . . .	73
Predicting soil particle density from clay and soil organic matter contents P. Schjønning, R.A. McBride, T. Keller and P.B. Obour . . . . .	83
Soil type and texture impacts on soil organic carbon storage in a sub-tropical agro-ecosystem D.R.P. Gonçalves, J.C.d.M. Sá, U. Mishra, C.E.P. Cerri, L.A. Ferreira and F.J.F. Furlan . . . . .	88
Using an inexpensive color sensor for rapid assessment of soil organic carbon R. Stiglitz, E. Mikhailova, C. Post, M. Schlautman and J. Sharp . . . . .	98
Modelling soil carbon trends for agriculture development scenarios at regional level R. Kaczynski, G. Siebielec, M.C. Hanegraaf and H. Korevaar . . . . .	104
Characterization of organic carbon in decomposing litter exposed to nitrogen and sulfur additions: Links to microbial community composition and activity Y. Xu, J. Fan, W. Ding, A. Gunina, Z. Chen, R. Bol, J. Luo and N. Bolan . . . . .	116

Fire effects on cation exchange capacity of California forest and woodland soils	
A.L. Ulery, R.C. Graham, B.R. Goforth and K.R. Hubbert .....	125
Penetrometer-mounted VisNIR spectroscopy: Application of EPO-PLS to <i>in situ</i> VisNIR spectra	
J.P. Ackerson, C.L.S. Morgan and Y. Ge .....	131
Salt-affected soils evolution and fluvial dynamics in the Pantanal wetland, Brazil	
S.A.C. Furquim, M.A. Santos, T.T. Vidoca, M.d.A. Balbino and E.L. Cardoso .....	139