

**SSSA 75th Anniversary Paper**

- 1133–1141 **Addressing the Need for Soil Blends and Amendments for the Highly Modified Urban Landscape**  
*John J. Sloan, Peter A. Y. Ampim, Nicholas T. Basta, and Roger Scott*

**Soil Physics**

- 1142–1148 **Nitrogen and Carbon Leaching in Repacked Sandy Soil with Added Fine Particulate Biochar**  
*Esben W. Bruun, Carsten Petersen, Bjarne W. Strobel, and Henrik Hauggaard-Nielsen*
- 1149–1158 **Estimating Soil Water Content from Permittivity for Different Mineralogies and Bulk Densities**  
*Davood Namdar-Khojasteh, Mahdi Shorafa, and Ahmad Heidari*
- 1159–1171 **Intra-aggregate Pore Characteristics: X-ray Computed Microtomography Analysis**  
*W. Wang, A. N. Kravchenko, A. J. M. Smucker, W. Liang, and M. L. Rivers*
- 1172–1183 **Nonparametric Techniques for Predicting Soil Bulk Density of Tropical Rainforest Topsoils in Rwanda**  
*N. Gharahi Ghehi, A. Nemes, A. Verdoodt, E. Van Ranst, W. M. Cornelis, and P. Boeckx*
- 1184–1191 **Average Soil Water Retention Curves Measured by Neutron Radiography**  
*C. L. Cheng, M. Kang, E. Perfect, S. Voisin, J. Horita, H. Z. Bilheux, J. M. Warren, D. L. Jacobson, and D. S. Hussey*
- 1192–1196 **A Fluidized Bed Technique for Estimating Soil Critical Shear Stress**  
*Sajyro Kossi Nouwakpo and Chi-hua Huang*
- 1197–1211 **The Role of Subsurface Hydrology in Soil Erosion and Channel Network Development on a Laboratory Hillslope**  
*Sajyro Kossi Nouwakpo and Chi-hua Huang*
- 1212–1216 **On Determining Soil Aggregate Bulk Density by Displacement in Two Immiscible Liquids**  
*Vandana Subroy, Daniel Giménez, Daniel Hirmas, and Paul Takhistov*

**Soil Physics Note**

- 1217–1221 **An Image-Based Method for Determining Bulk Density and the Soil Shrinkage Curve**  
*Ryan D. Stewart, Majdi R. Abou Najm, David E. Rupp, and John S. Selker*

**Soil Chemistry**

- 1222–1228 **Sorption of Lincomycin at Low Concentrations from Water by Soils**  
*Cuiping Wang, Brian J. Teppen, Stephen A. Boyd, and Hui Li*
- 1229–1245 **Estimation of Single-Metal and Competitive Sorption Isotherms through Maximum Likelihood and Model Quality Criteria**  
*Emanuela Bianchi Janetti, Ishai Dror, Monica Riva, Alberto Guadagnini, and Brian Berkowitz*

- 1246–1256 **Characteristics of Insoluble, High Molecular Weight Iron-Humic Substances used as Plant Iron Sources**  
*Claudio Colombo, Giuseppe Palumbo, Vincenzo Michele Sellitto, Cecilia Rizzardo, Nicola Tomasi, Roberto Pinton, and Stefano Cesco*

**Soil Biology & Biochemistry**

- 1257–1267 **Impact of Biosolids and Tillage on Soil Organic Matter Fractions: Implications of Carbon Saturation for Conservation Management in the Virginia Coastal Plain**  
*Catherine E. Stewart, Ronald F. Follett, James Wallace, and Elizabeth G. Pruessner*
- 1268–1279 **Nitrogen Source, Application Time, and Tillage Effects on Soil Nitrous Oxide Emissions and Corn Grain Yields**  
*C. F. Drury, W. D. Reynolds, X. M. Yang, N. B. McLaughlin, T. W. Welacky, W. Calder, and C. A. Grant*
- 1280–1289 **Soil Enzyme Activities in Permafrost Regions of the Western Qinghai-Tibetan Plateau**  
*X. D. Wu, L. Zhao, H.B. Fang, J. Chen, Q. Q. Pang, Z. W. Wang, M. J. Chen, and Y. J. Ding*

**Soil Fertility & Plant Nutrition**

- 1290–1300 **Influence of Soil Amendment History on Decomposition of Recently Applied Organic Amendments**  
*Leif Nett, Silke Ruppel, Joerg Ruehlmann, Eckhard George, and Matthias Fink*
- 1301–1310 **Dry Soil Reduces Fertilizer Phosphorus and Zinc Diffusion but Not Bioavailability**  
*T.M. McBeath, M.J. McLaughlin, J.K. Kirby, and R.D. Armstrong*
- 1311–1318 **Interpreting Relationships between Soil Variables and Soybean Iron Deficiency using Factor Analysis**  
*A. M. Liesch, D. A. Ruiz Diaz, D. B. Mengel, and K. L. Roozeboom*

**Soil & Water Management & Conservation**

- 1319–1332 **Comparing the Accuracy of Several Field Methods for Measuring Gully Erosion**  
*C. Castillo, R. Pérez, M. R. James, J. N. Quinton, E. V. Taguas, and J. A. Gómez*
- 1333–1346 **Nitrous Oxide Dynamics in a Deep Soil-Alluvial Gravel Vadose Zone Following Nitrate Leaching**  
*Steve Thomas, Hayley Waterland, Rod Dann, Murray Close, Glyn Francis, and Freeman Cook*
- 1347–1357 **Nitrous Oxide, Methane Emission, and Yield-Scaled Emission from Organically and Conventionally Managed Systems**  
*Jane M.F. Johnson Sharon L. Weyers, David W. Archer, and Nancy W. Barbour*
- 1358–1369 **Changes in Chemical Properties of Semiarid Soils under Long-Term Secondary Treated Wastewater Irrigation**  
*M. Lado, A. Bar-Tal, A. Azenkot, S. Assouline, I. Ravina, Y. Erner, P. Fine, S. Dasberg, and M. Ben-Hur*
- 1370–1378 **Residue and Long-Term Tillage and Crop Rotation Effects on Simulated Rain Infiltration and Sediment Transport**  
*R. L. Baumhardt, G. L. Johnson, and R. C. Schwartz*

**1379–1389 Uncertainty Analysis for the Evaluation of Agricultural Soil Quality Based on Digital Soil Maps**

*Xiao-Lin Sun, Sheng-Chun Wu, Hui-Li Wang, Yu-Guo Zhao, Yongcun Zhao, Gan-Lin Zhang, Yu Bon Man, and Ming Hung Wong*

**1390–1398 Corn Residue Removal Impact on Soil Aggregates in a No-Till Corn/Soybean Rotation**

*Amber L. Hammerbeck, Sarah J. Stetson, Shannon L. Osborne, Thomas E. Schumacher, and Joseph L. Pikul, Jr.*

**1399–1406 Corn Residue Removal Impact on Topsoil Organic Carbon in a Corn–Soybean Rotation**

*Sarah J. Stetson, Shannon L. Osborne, Thomas E. Schumacher, Anna Eynard, Gabriela Chilom, James Rice, Kristine A. Nichols, and Joseph L. Pikul, Jr.*

### Forest, Range & Wildland Soils

**1407–1417 Early Indications of Soil Recovery from Acidic Deposition in U.S. Red Spruce Forests**

*Gregory B. Lawrence, Walter C. Shortle, Mark B. David, Kevin T. Smith, Richard A. F. Warby, and Andrei G. Lapenis*

**1418–1425 Long-term Effect of Silvicultural Thinnings on Soil Carbon and Nitrogen Pools**

*Martin Jurgensen, Rachel Tarpey, Jim Pickens, Randy Kolka, and Brian Palik*

**1426–1435 Assessment of the Natural Recovery Rate of Soil Specific Volume following Forest Soil Compaction**

*Noémie Goutal, Pascal Boivin, and Jacques Ranger*

### Nutrient Management & Soil & Plant Analysis

**1436–1445 Rapid, Nondestructive Total Elemental Analysis of Vertisol Soils using Portable X-ray Fluorescence**

*Timothy I. McLaren, Christopher N. Guppy, Matthew K. Tighe,*

*Nicola Forster, Peter Grave, Leanne M. Lisle, and John W. Bennett*

**1446–1453 A Rapid and Nondestructive Plant Nutrient Analysis using Portable X-Ray Fluorescence**

*Timothy I. McLaren, Christopher N. Guppy, and Matthew K. Tighe*

**1454–1461 Near Infrared Reflectance Spectroscopy Prediction of Soil Nitrogen Supply in Humid Temperate Regions of Canada**

*Mervin St. Luce, Noura Ziadi, Judith Nyiraneza, Gaëtan F. Tremblay, Bernie J. Zebarth, Joann K. Whalen, and Mario Laterrière*

### Soil Mineralogy

**1462–1477 Geochemistry of Alluvial Soils Composed of Metal-Enriched Sediments, Main Stem of the Coeur d'Alene River, Idaho**

*Michael A. Wilson, Allyson V. Young, Bruce D. Knapp, David R. Hoover, and Hal K. Swenson*

### Wetland Soils

**1478–1481 Field Estimations of Soil Organic Carbon**

*M. C. Rabenhorst and M. H. Stolt*

**1482–1495 Soil Properties and Vegetative Development in Four Restored Freshwater Depressional Wetlands**

*Katherine Ballantine, Rebecca Schneider, Peter Groffman, and Johannes Lehmann*

**1496–1506 Soil Phosphorus Forms along a Strong Nutrient Gradient in a Tropical Ombrotrophic Wetland**

*Alexander W. Cheesman, Benjamin L. Turner, and K. Ramesh Reddy*

### Book Reviews

**1507 Handbook of Soil Sciences**

*Reviewed by April Ulery*