

Ecology, Biological Processes and Plant Interactions

Effect of nitrogen fertilizer rate on nitrous oxide emission from irrigated potato on a clay loam soil in Manitoba, Canada

X. Gao, M. Tenuta, A. Nelson, B. Sparling, D. Tomaszewicz, R. M. Mohr, and B. Bizimungu 1–11

Artificially applied vanillic acid changed soil microbial communities in the rhizosphere of cucumber (*Cucumis sativus* L.)

X. Zhou and F. Wu 13–21

Broccoli residue-derived nitrogen immobilization following amendments of organic carbon: An incubation study

K. A. Congreves, R. P. Voroney, I. P. O'Halloran, and L. L. Van Eerd 23–31

Biodisponibilité de l'azote et du phosphore dans les sols de bleuétières du Québec

J. Lafond et N. Ziadi 33–44

Soil bacteria and archaea found in long-term corn (*Zea mays* L.) agroecosystems in Quebec, Canada

S. Sheibani, S. F. Yanni, R. Wilhelm, J. K. Whalen, L. G. Whyte, C. W. Greer, and C. A. Madramootoo 45–57

A simple method for quantifying dissolved nitrous oxide in tile drainage water

J. D. Roper, D. L. Burton, A. Madani, and G. W. Stratton 59–64

Physical Processes and Interfaces

A modified model for estimating the full description of soil particle size distribution

P. Zhao, M. Shao, W. Omran, and D. She 65–72

Model prediction of soil drainage classes over a large area using a limited number of field samples: A case study in the province of Nova Scotia, Canada

Z. Zhao, M. Irfan Ashraf, and F.-R. Meng 73–83

Simulation of soil water dynamics for uncropped ridges and furrows under irrigation conditions
Y. Zhang P. Wu, X. Zhao, and Z. Wang 85–98

Genesis, Landscape Processes and Relationships

The effects of land-use change on ecosystem service value of desert oasis: a case study in Ugan-Kuqa River Delta Oasis, China

M. Sawut, M. Aziz, and T. Tiyip 99–108

Contamination and Environmental Stewardship

Simplified Microtox® bioassay for drilling waste disposal on lease soils in Alberta

J. Ashworth and C. Symonds 109–111

Management for Agricultural, Forestry and Urban Uses

Residual effects of combinations of limestone, zinc and manganese applications on soil and plant nutrients under mild and wet climatic conditions

C. G. Kowalenko and M. Ihnat 113–125

Long-term effect of pulses and nutrient management on soil carbon sequestration in Indo-Gangetic plains of India

M. S. Venkatesh, K. K. Hazra, P. K. Ghosh, C. S. Praharaj, and Narendra Kumar 127–136

Agrometeorology

Effects of crop rotation, crop type and tillage on soil organic carbon in a semiarid climate

B. M. Shrestha, B. G. McConkey, W. N. Smith, R. L. Desjardins, C. A. Campbell, B. B. Grant, and P. R. Miller 137–146