

CONTENTS

Soil physics

- 1 Effect of groundwater level fluctuation on soil respiration rate of tropical peatland in Central Kalimantan, Indonesia
Kiwamu Ishikura, Hiroyuki Yamada, Yo Toma, Fumiaki Takakai, Tomoaki Morishita, Untung Darung, Atfritedy Limin, Suwido H. Limin and Ryusuke Hatano
- 14 Strontium adsorption and penetration in kaolinite at low Sr^{2+} concentration
Zigong Ning, Munehide Ishiguro, Luuk K. Koopal, Tsutomu Sato and Jun'ichi Kashiwagi

Plant nutrition

- 18 Chemiluminescence-based quantification of the colonization rates of *Lotus japonicus* roots by arbuscular mycorrhizal fungi
Yoshihiro Kobae, Ryo Ohtomo, Sho Morimoto and Norikuni Oka
- 23 Role of nitrogen-responsive plant-type phosphoenolpyruvate carboxylase in the accumulation of seed storage protein in ancient wheat (spelt and kamut)
Naoki Yamamoto, Yuki Kinoshita, Toshio Sugimoto and Takehiro Masumura
- 29 A simple model system for identifying arbuscular mycorrhizal fungal taxa that actively colonize rice (*Oryza sativa* L.) roots grown in field soil
Yoshihiro Kobae, Ryo Ohtomo, Norikuni Oka and Sho Morimoto
- 37 Selenium accumulation in wheat (*Triticum aestivum* L) as affected by coapplication of either selenite or selenate with phosphorus
Dong Zhang, Tianyu Dong, Jun Ye and Zhenan Hou

- 45 Overexpression of the sucrose transporter gene *NtSUT1* alleviates aluminum-induced inhibition of root elongation in tobacco (*Nicotiana tabacum* L.)
Koki Kariya, Muhammad Sameeullah, Takayuki Sasaki and Yoko Yamamoto

Soil fertility

- 55 Influence of agricultural activity on soil morphological and physicochemical properties on sandy beach ridges along the east coast of Peninsular Malaysia
Khairul Hafiz Mohd Yusoff, Arifin Abdu, Katsutoshi Sakurai, Sota Tanaka and Yumei Kang
- 67 Relationship between plant-available silicon and reducible iron in irrigated paddy soils
Chikako Mihara, Xhui Chang, Yuki Sugiura, Syuhei Makabe-Sasaki and Akira Watanabe

Environment

- 75 Effects of heavy metals on soil microbial community structure and diversity in the rice (*Oryza sativa* L. subsp. Japonica, Food Crops Institute of Jiangsu Academy of Agricultural Sciences) rhizosphere
Zili Ding, Jinping Wu, Aiqing You, Bangquan Huang and Cougui Cao
- 84 Realistic soil-heating gradient temperature linearly changes most of the soil chemical properties
Edivaldo L. Thomaz

Abstracts

- 92 Abstracts of Nippon Dojo-Hiryogaku Zasshi

Other

- 99 Erratum
- 100 Instructions for Authors