

|   |           |
|---|-----------|
| <b>2014 IPNI Scholar Award Recipients Announced</b>   | <b>3</b>  |
| <b>Encourage Growers to Do the Numbers before Reacting to Crop Prices</b><br>Mike Stewart and Paul Fixen  | <b>8</b>  |
| <b>Estimating Nutrient Uptake Requirements for Wheat</b><br>Limin Chuan, Ping He, Mirasol F. Pampolino, Jiyun Jin, Shutian Li, Cynthia Grant, Wei Zhou, and Adrian M. Johnston  | <b>10</b> |
| <b>Does Long-term Use of Mineral Fertilizers Affect the Soil Microbial Biomass?</b><br>Daniel Geisseler and Kate M. Scow  | <b>13</b> |
| <b>Nutrient Management Improvements in Forestry Species</b><br>Alfredo Alvarado, Jesús Fernández-Moya, José M. Segura, Edwin E. Vaides, Manuel Camacho, María J. Avellán, and Carlos E. Ávila                                     | <b>16</b> |
| <b>Nitrogen Use Efficiency for Old versus Modern Corn Hybrids</b><br>Ignacio A. Ciampitti and Tony J. Vyn   | <b>19</b> |
| <b>The Efficient Use of Phosphorus in Agriculture</b><br>Johnny Johnston, Paul Fixen and Paul Poulton   | <b>22</b> |
| <b>Simulating Potential Growth and Yield of Oil Palm with PALMSIM</b><br>Munir P. Hoffmann, Alba Castaneda Vera, Mark T. van Wijk, Ken E. Giller, Thomas Oberthür, Christopher Donough, Anthony M. Whitbread, and Miles J. Fisher | <b>25</b> |
| <b>Nutrient Expert Improves Maize Yields while Balancing Fertilizer Use</b><br>Vishal B. Shahi, Sudarshan K. Dutta, Kaushik Majumdar, T. Satyanarayana, and Adrian Johnston   | <b>27</b> |
| <b>Fertilizer Use Patterns in the Semi-arid, Cereal Producing Region of Chaouia</b><br>Zhor Abail, Oumaima Iben Halima, Hakim Boulal, and Mohamed El Gharous  | <b>29</b> |
| <b>Perception versus Reality</b><br>Terry L. Roberts  | <b>32</b> |