

## CONTENTS

### Special Issue: Climate Change and Drainage

- 1 Preface  
*J. Deelstra and I. Wesström*

### ORIGINAL ARTICLES

---

- 2 Mole drain performance in a clay loam soil in Ireland  
*P. Tuohy, J. Humphreys, N. M. Holden and O. Fenton*
- 14 Agricultural drainage in Lithuania: a review of practices and environmental effects  
*A. Povilaitis, R. Lamsodis, N. Bastienė, A. Rudzianskaitė, S. Misevičienė, O. Miseckaitė, S. Gužys, G. Baigys, V. Grybauskienė and G. Balevičius*
- 30 Development and application of a solute transport model to describe field-scale nitrogen processes during autumn rains  
*H. Salo, L. Warsta, M. Turunen, M. Paasonen-Kivekäs, J. Nurminen and H. Koivusalo*
- 44 Simulating water balance and evapotranspiration in a subsurface drained clayey agricultural field in high-latitude conditions  
*M. Turunen, L. Warsta, M. Paasonen-Kivekäs, J. Nurminen and H. Koivusalo*
- 58 Climate change and subsurface drainage design: results from a small field-scale catchment in south-western Norway  
*J. Deelstra*
- 66 Nutrient losses from subsurface drainage systems in Latvia  
*A. Lagzdīņš, V. Jansons, R. Sudars, L. Grinberga, A. Veinbergs and K. Abramenko*
- 80 Land drainage strategies to cope with climate change in the Netherlands  
*H.P. Ritzema and L.C.P.M. Stuyt*
- 93 Influence of higher rain intensities on phosphorus movements in the upper half meter of macroporous clay soil  
*I. Messing, A. Joel, I. Wesström and J. Strock*
- 100 A tool for assessing the status of drainage ditches and the need for remedial measures  
*A. Joel, I. Wesström and I. Messing*
- 110 Groundwater management of acid sulfate soils using controlled drainage, by-pass flow prevention, and subsurface irrigation on a boreal farmland  
*P. Österholm, S. Virtanen, R. Rosendahl, J. Uusi-Kämppe, K. Ylivainio, M. Yli-Halla, M. Mäensivu and E. Turtola*
- 121 Developing optimum subsurface drainage design procedures  
*G.R. Sands, D. Canelon and M. Talbot*
- 128 N<sub>2</sub>O emissions from a cultivated mineral soil under different soil drainage conditions  
*M. Tesfai, A. Hauge and S. Hansen*