

BURLEIGH DODDS SERIES IN AGRICULTURAL SCIENCE

Advances in precision livestock farming

Edited by Professor Daniel Berckmans
Katholieke University of Leuven, Belgium



 burleigh dodds
SCIENCE PUBLISHING

AVAILABLE NOW

About the book

This collection provides a comprehensive review of recent advances in the development of precision livestock technologies to monitor the health and welfare of animals as well as key areas of production such as housing and feed efficiency.

About the editor

Professor Daniel Berckmans has been associated with the Katholieke University of Leuven for 40 years. His team is widely regarded as a world leader in precision livestock farming, producing over 350 publications and over 450 conference papers, with 17 new products brought to market in collaboration with industrial partners and 20 patents submitted. In 2003 he started the European Conferences on Precision Livestock Farming (ECPLF) which reached its 10th anniversary in 2022

Advances in precision livestock farming

Available in print and digital formats:

ISBN - print 978-1-78676-471-3

Pages 442

Pub. Date June 2022

Price £150/\$195/€180/C\$255

Series No AS105

Order via our online bookshop at <https://bdspublishing.com>, your usual book supplier, or pass to your librarian.

Enquiries to info@bdspublishing.com

For a complete list of titles visit www.bdspublishing.com

T: +44 (0) 1223 839365

E: info@bdspublishing.com

www.bdspublishing.com

 @bdspublishing

 Burleigh Dodds Science Publishing

 burleigh dodds
SCIENCE PUBLISHING

Advances in precision livestock farming

Edited by: Professor Daniel Berckmans, Katholieke University of Leuven, Belgium

Part 1 Data collection and analysis

1. Developments in on-animal sensors for monitoring livestock: *Mark Trotter, CQUniversity Institute for Future Farming Systems, Australia; Derek Bailey, New Mexico State University, USA; and Jaime Manning, Caitlin Evans, Diogo Costa, Elle Fogarty and Anita Chang, CQ University Institute for Future Farming Systems, Australia*
2. Developments in thermal imaging techniques to assess livestock health: *A. L. Schaefer and N. J. Cook, University of Alberta, Canada*
3. Developments in acoustic techniques to assess livestock health: *Erik Vranken, SoundTalks NV, Belgium and KU Leuven M3-BIORES – Measure, Model & Manage Bioresponses, Belgium; Daniel Berckmans, KU Leuven M3-BIORES - Measure, Model & Manage Bioresponses and BioRICS NV, Belgium; and Wim Buyens and Dries Berckmans, SoundTalks NV, Belgium*
4. Machine vision techniques to monitor behaviour and health in precision livestock farming: *C. Arcidiacono and S. M. C. Porto, University of Catania, Italy*
5. Developments in activity and location technologies for monitoring cattle movement and behaviour: *N. A. Lyons, NSW Department of Primary Industries, Australia; and S. Lomax, The University of Sydney, Australia*
6. Developments in data analysis for decision-making in precision livestock farming systems: *Elaine van Erp-van der Kooij, HAS University of Applied Sciences, The Netherlands*

Part 2 Applications

7. Monitoring and control of livestock housing conditions using precision livestock farming techniques: *Daniela Lovarelli and Marcella Guarino, University of Milan, Italy*
8. Developments in individual-animal feed efficiency monitoring systems for livestock: *Ilan Halachmi and Ran Bezen, The Volcani Centre - Agriculture Research Organization (ARO) and Ben-Gurion University of the Negev, Israel; Assaf Godo, Harel Levit and Victor Bloch, The Volcani Centre - Agriculture Research Organization (ARO), Israel; and Yael Edan, Ben-Gurion University of the Negev, Israel*
9. Developments in automated systems for monitoring livestock health: mastitis: *M. van der Voort and H. Hogeveen, Wageningen University & Research, The Netherlands*
10. Developments in automated systems for monitoring livestock health: lameness: *Zoe E. Barker, University of Reading, UK; Nick J. Bell, University of Nottingham, UK; Jonathan R. Amory, Writtle University College, UK; and Edward A. Codling, University of Essex, UK*
11. Developments in automated monitoring of livestock fertility/pregnancy: *Michael Iwersen and Marc Drillich, University of Veterinary Medicine Vienna, Austria*
12. Advances in robotic milking systems: *Bernadette O'Brien and Deirdre Hennessy, Teagasc, Ireland*
13. Developments in monitoring grazing behaviour and automated grazing management in extensive systems: *Dana L. M. Campbell, Gregory J. Bishop-Hurley, Caroline Lee and Ed Charmley, CSIRO, Australia*