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Advances in breeding of dairy cattle

Edited by Professor Julius van der Werf
University of New England, Australia
Professor Jennie Pryce
Agriculture Victoria and La Trobe University, Australia



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About the book

Dairy cattle breeding faces challenges such as reduced genetic diversity and the improvement of production over functional traits. This collection reviews the latest research on genetics, genetic diversity and advanced methods of genetic evaluation and selection.

About the editors

Dr Julius van der Werf is Professor of Animal Breeding and Genetics at the University of New England, Australia. He is co-Editor in Chief of the journal Genetics, Selection, Evolution.

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Advances in breeding of dairy cattle

Edited by: Professor Julius van der Werf, University of New England, Australia and Professor Jennie Pryce, Agriculture Victoria and La Trobe University, Australia

Part 1 Managing genetic diversity

1. Genetic and phenotypic improvements in temperate dairy systems: an overview: *Allison Fleming, Canadian Dairy Network, Canada; Tatiane Chud, University of Guelph, Canada; Luiz Brito, Purdue University, USA; et al.*
2. Assessing inbreeding and genetic diversity in the Holstein breed using pedigree and genomic approaches: *Christine Baes, University of Guelph, Canada and University of Bern, Switzerland; and Bayode Makanjuola and Larry Schaeffer, University of Guelph, Canada*
3. Genetic diversity in dairy cattle: variation within and between breeds: *Kor Oldenbroek, Wageningen University and Research, The Netherlands*
4. The use of genomic information to improve selection response while controlling inbreeding in dairy cattle breeding programs: *C. Maltecca, North Carolina State University, USA; C. Baes, University of Guelph, Canada; et al.*
5. Opportunities and challenges in crossbreeding dairy cattle in temperate regions: *Bradley J. Heins, University of Minnesota, USA*

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12. The use of mid-infrared spectral data to predict traits for genetic selection in dairy cattle: *Nicolas Gengler and Hélène Soyeurt, University of Liège, Belgium*

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