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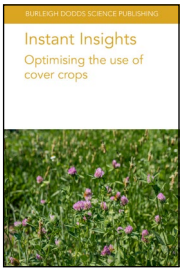

Optimising the use of cover crops

NEW

Contents

1.Service crops as a source of nitrogen in temperate Europe: *Iris Vogeler, Aarhus University, Denmark;* 2.The role of cover crops in improving biodiversity: *Deirdre Prischmann-Voldseth, North Dakota State University, USA;* 3.Strategies to increase cover crop adoption: *Ken Staver, University of Maryland, USA;* 4.Cover crops for soil health: *Sieglinde S. Snapp, Michigan State University, USA*

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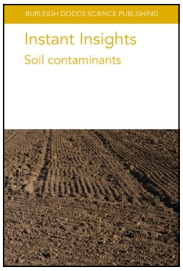

Soil contaminants

NEW

Contents

1.Polycyclic aromatic hydrocarbon (PAH) contaminants in agricultural soils: occurrence and remediation: *Teklit Gebregiorgis Ambaye, University of Brescia, Italy/Technical University of Denmark, Denmark*; 2.Antibiotic residues as contaminants in agricultural soils: *Nikola Rakonjac, Wageningen University, The Netherlands*; 3.Wastewater as a contamination risk for agricultural soils: *Guy J. Levy, Agricultural Research Organization, Volcani Institute, Israel*; 4.The impact of heavy metal contamination on soil health: *Santanu Bakshi, Iowa State University, USA*

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Soil carbon sequestration

NEW

Contents

1.Introduction: soil carbon sequestration – a process linking soils to humanity: *C. Rumpel, CNRS, Sorbonne University, Institute of Ecology and Environmental Sciences Paris, France;* 2.Promoting carbon sequestration in soils: the importance of soil, region and context-specific interventions: *Rattan Lal, CFAES Rattan Lal Center for Carbon Management and Sequestration, The Ohio State University, USA;* 3.Measuring and monitoring soil carbon sequestration: *Matthias Kuhnert, Institute of Biological & Environmental Sciences, University of Aberdeen, UK;* 4.Spectral mapping of soil organic carbon: *Bas van Wesemael, Université catholique de Louvain, Belgium;* 5.Assessing the benefits of temperate agroforestry in enhancing carbon sequestration: *Augustine K. Osei, University of Waterloo, Canada*

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SOIL HEALTH

Organic soil amendments

NEW

Contents

1.Organic fertilizers and biofertilizers: *Lidia Sas Paszt, Research Institute of Horticulture, Poland;* 2.Assessing the effects of compost on soil health: *Cristina Lazcano, University of California-Davis, USA;* 3.Optimizing slurry management: *David Fangueiro, LEAF-Instituto Superior de Agronomia-ULisboa, Portugal;* 4.Optimizing livestock manure as a biofertilizer and bioenergy source: *V. Riau, Institute of Agrifood Research and Technology (IRTA), Spain*

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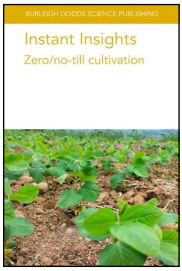

Zero/no-till cultivation

Contents

1.Assessing the effects of no-till cultivation practices on soil health: *Alison Hamm and Daniel K. Manter, USDA-ARS, USA;* 2.The role of no or minimum mechanical soil disturbance in Conservation Agriculture systems: *Theodor Friedrich, Food and Agriculture Organization of the United Nations (FAO), Italy;* 3.Soil management practices and benefits in Conservation Agriculture systems: *Michele Pisante, University of Teramo, Italy;* 4.The effects of zero/conservation tillage practices in preventing soil erosion: *Mike Kucera, USDA-ARS, USA*

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Regenerative techniques to improve soil health

Contents

1.Safe and sustainable use of bio-based fertilizers in agricultural production systems: *April Leytem, United States Department of Agriculture, USA;* 2.Assessing the effects of compost on soil health: *Cristina Lazcano, University of California-Davis, USA;* 3.Service crops as a source of nitrogen in temperate Europe: *Iris Vogeler, Aarhus University, Denmark and Christian-Albrechts University, Germany;* 4.The role of crop rotations in optimizing nitrogen use efficiency in organic farming: *Lucie Chmelíková, Technical University of Munich, Germany*

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Using manure in soil management

Contents

1.Manure management in organic farming: *Peter Sørensen, Department of Agroecology, Aarhus University, Denmark;* 2.Manure and compost management to maintain soil health: *Francis J. Larney, Agriculture and Agri-Food Canada, Canada;* 3.Assessing the effects of using animal manure on soil health: *Ashraf M. Tubeileh, California Polytechnic State University, USA;* 4.Sustainable nitrogen management for housed livestock, manure storage and manure processing: *Barbara Amon, Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), Germany and University of Zielona Góra, Poland;* 5.Optimising livestock manure as a biofertiliser and bioenergy source: *V. Riau, Institute of Agrifood Research and Technology (IRTA), Spain*

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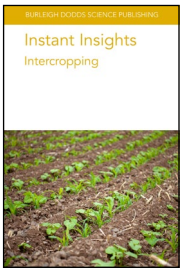

Intercropping

Contents

1.Grain legume–cereal intercropping systems: *L. Bedoussac, ENSFEA, INRA AGIR, France;* 2.Intercropping in sustainable maize cultivation: *Abeya Temesgen, The University of Queensland, Australia;* 3.Effects of crop rotations and intercropping on soil health: *Gilbert C. Sigua, USDA-ARS, USA;* 4.Temperate alley cropping systems: *Diomy S. Zamora, University of Minnesota, USA*

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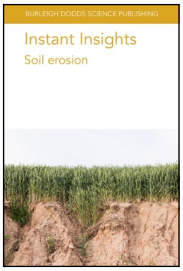

Soil erosion

Contents

1.Mechanisms of soil erosion/degradation: *R. J. Rickson, Cranfield University, UK;* 2.The impact of heavy metal contamination on soil health: *Santanu Bakshi, Iowa State University, USA;* 3.Advances in techniques to assess soil erodibility: *R. J. Rickson, Cranfield University, UK;* 4.Rehabilitating degraded and abandoned agricultural lands with Conservation Agriculture systems: *Telmo Jorge Carneiro Amado, Federal University of Santa Maria, Brazil*

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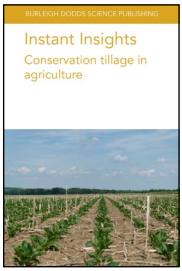
SOIL HEALTH



Conservation tillage in agriculture

Contents

1.Conservation tillage in organic farming: *Maike Krauss, Research Institute of Organic Agriculture (FiBL), Switzerland;* 2.The role of no or minimum mechanical soil disturbance in Conservation Agriculture systems: *Theodor Friedrich, Food and Agriculture Organization of the United Nations (FAO), Italy;* 3.Soil management practices and benefits in Conservation Agriculture systems: *Michele Pisante, University of Teramo, Italy;* 4.Zero-tillage cultivation of maize: *Wade E. Thomason, Virginia Tech University, USA;* 5.Conservation tillage for sustainable wheat intensification: the example of South Asia: *Vijesh Krishna, Georg-August University of Göttingen, Germany*

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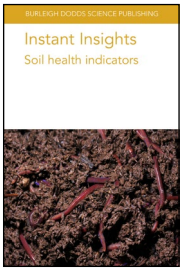

Soil health indicators

Contents

1.Developing soil health indicators for improved soil management on farm: *Elizabeth Stockdale, NIAB, UK;* 2.Biological indicators of soil health in organic cultivation: *A. Fortuna, Washington State University, USA;* 3.Modelling soil organic matter dynamics as a soil health indicator: *Eleanor E. Campbell, University of New Hampshire, USA;* 4.Quantifying earthworm community structures as indicators of soil health: *Jacqueline L. Stroud, formerly Rothamsted Research, UK*

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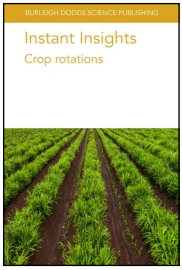

Crop rotations

Contents

1.Effects of crop rotations and intercropping on soil health: *Gilbert C. Sigua, USDA-ARS, USA;* 2.The role of crop rotations in organic farming: *Bernhard Freyer, University of Natural Resources and Life Sciences (BOKU), Austria;* 3.Modeling crop rotations: capturing short- and long-term feedbacks for sustainability and soil health: *B. Basso, Michigan State University, USA;* 4.Developing decision-support systems for crop rotations: *Zia Mehrabi, University of British Columbia, Canada;* 5.The role of crop rotation, intercropping and tillage practices for foliar disease management of wheat and barley: *T. K. Turkington, Agriculture and Agri-Food Canada, Canada*

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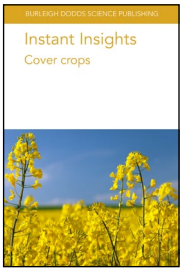

Cover crops

Contents

1.Use of cover crops to promote soil health: *Robert L. Myers, USDA – SARE and University of Missouri, USA;* 2.Cover crops in organic crop cultivation: *Peter Von Fragstein und Niemsdorff, Universität Kassel, Germany;* 3.The role and management of soil mulch and cover crops in Conservation Agriculture systems: *A. Calegari, Agricultural Research Institute of Paraná State (IAPAR), Brazil;* 4.The use of rotations and cover crops to manage weeds: *John R. Teasdale, ARS-USDA, USA*

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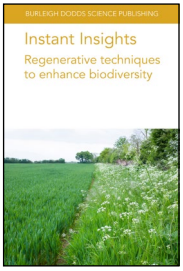

Regenerative techniques to enhance biodiversity

NEW

Contents

1.The impact and design of field margins in promoting biodiversity in agricultural landscapes: *Jane Morrison, Bishop's University, Canada;* 2.The impact and management of hedgerows in promoting biodiversity in agricultural landscapes: Ian Montgomery, Queen's University of Belfast, UK; 3.Modelling and optimising associated biodiversity in alley cropping systems: *Mário Santos, CITAB (Centre for the Research and Technology of Agro-Environmental and Biological Sciences) - University of Trás-os-Montes e Alto Douro, Portugal and Federal Institute of Education, Science and Technology of Para, Brazil;* 4.Designing and developing multi-species swards/herbal leys: *Thomas Moloney, DLF, Ireland*

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Rewilding in agriculture

NEW

Contents

1.Rewilding grasslands and rangelands: *Thomas A. Jones, Forage and Range Research Laboratory – U.S. Department of Agriculture – Agricultural Research Service, USA;* 2.The future of animal rewilding in agricultural landscapes: *Kiarrah J. Smith, The Australian National University, Australia;* 3.Animal rewilding in theory and practice: Australia and New Zealand: *Christopher R. Dickman, The University of Sydney, Australia*

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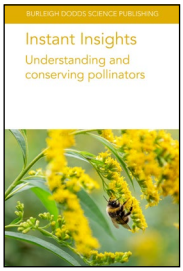

Understanding and conserving pollinators

NEW

Contents

1.Using data to assess the impact of agriculture on pollinators and pollinator services: *Noa Simón Delso, BeeLife European Beekeeping Coordination, Belgium;* 2.Organic and natural beekeeping, and caring for insect pollinators: *Nicola Bradbear, Bees for Development, UK;* 3.Ecological network approaches for promoting pollinators in agriculture: *Darren M. Evans, Newcastle University, UK;* 4. The role of habitat conservation and restoration in protecting pollinators in agricultural landscapes: *Stephen Buchmann, University of Arizona, USA;*

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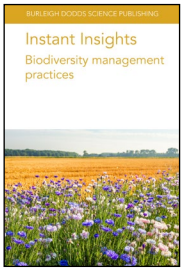

Biodiversity management practices

Contents

1.Biodiversity management practices and benefits in Conservation Agriculture systems: *Scott Day, Treelane Farms Ltd, Canada;* 2.Conservation grass hedges and soil health parameters: *Humberto Blanco-Canqui, University of Nebraska, USA;* 3.The role of field margins in biodiversity conservation in agroecosystems: *Alicia Cirujeda, Centro de Investigación y Tecnología Agroalimentaria de Aragón (CITA-Universidad de Zaragoza), Spain;* 4.The role of hedgerows in supporting biodiversity and other ecosystem services in intensively managed agricultural landscapes: *Audrey Alignier, INRAE, France*

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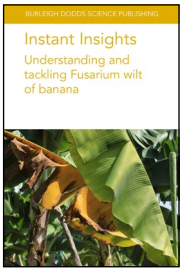

Understanding and tackling Fusarium wilt of banana

NEW

Contents

1.Understanding the banana industry: monoculture and beyond: *Dan Koeppel, Independent Journalist and Researcher, USA;* 2.Fusarium wilt of banana: impact, epidemiology and management of Fusarium wilt Race 1 and 2 [Ed. 4]: *Einar Martínez de la Parte, Wageningen University and Research, The Netherlands and Instituto de Investigaciones de Sanidad Vegetal (INISAV), Cuba;* 3.The past, present and future of Fusarium wilt of banana caused by Tropical Race 4 [Ed. 5]: *Fernando García-Bastidas, KeyGene B.V., The Netherlands;* 4.Targeted improvement of Cavendish clones: *Eli Khayat, Rahan Meristem (1998) LTD., Israel;* 5.Developing hybrid banana varieties with improved properties: *Edson Perito Amorim, Embrapa, Brazil*

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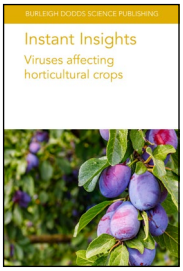

Viruses affecting horticultural crops

Contents

1.Management of viruses and virus-like agents affecting apple production: *Kenneth C. Eastwell, Washington State University, USA;* 2.Apple mosaic virus: biology, epidemiology and detection: *Karel Petrzik, Biology Centre CAS, Czech Republic;* 3.Plum pox virus: detection and management: *Manuel Rubio, CEBAS-CSIC, Spain;* 4.Insect-transmitted viral diseases infecting tomato crops: *H. Czosnek, Hebrew University of Jerusalem, Israel;* 5.Banana bunchy top virus: *John Thomas, The University of Queensland, Australia;* 6.Other viral pathogens of banana: *Andrew Geering, The University of Queensland, Australia*

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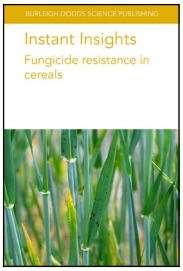

Fungicide resistance in cereals

Contents

1.How pathogens develop resistance to fungicides: an overview: *Richard Oliver, University of Nottingham, UK;* 2.Occurrence and avoidance of fungicide resistance in cereal diseases: *Lise Nistrup Jørgensen, Aarhus University, Denmark; Richard Peter Oliver, Curtin University, Australia; and Thies Marten Heick, Aarhus University, Denmark;* 3.Key challenges in developing new fungicides: *Gregory M. Kemmitt, Corteva Agriscience™, UK;* 4.Challenges and prospects for fungicidal control of wheat diseases: *R. J. Bryson and H-D. Brix, BASF SE, Germany*

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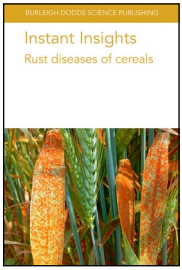

Rust diseases of cereals

Contents

1.Advances in understanding the biology and epidemiology of rust diseases of cereals: *Vanessa Bueno-Sancho, John Innes Centre, UK;* 2.Advances in identifying stripe rust resistance genes in cereals: *Tianheng Ren, Sichuan Agricultural University, China;* 3.Diseases affecting wheat and barley: rusts: *R. F. Park, University of Sydney, Australia;* 4.Advances in control of wheat rust: *Z. A. Pretorius, University of the Free State, South Africa;* 5.Sorghum diseases and their management in cultivation: seedling, seed, panicle and foliar diseases: *C. R. Little, Kansas State University, USA*

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Septoria tritici blotch in cereals

Contents

1.Diseases affecting wheat: Septoria tritici blotch: *S. B. Goodwin, USDA-ARS, USA;* 2.Fungal diseases affecting barley: *Robert S. Brueggeman, Washington State University, USA;* 3.Advances in understanding the epidemiology of Septoria tritici blotch in cereals: *Stephen B. Goodwin, USDA-ARS, USA;* 4.Advances in breeding techniques for durable Septoria tritici blotch (STB) resistance in cereals: *Harsh Raman, NSW Department of Primary Industries, Australia*

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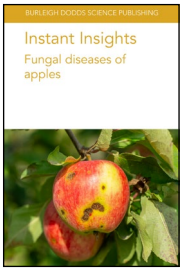
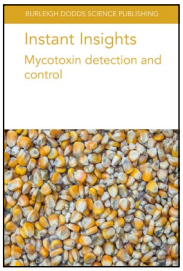


Fungal diseases of apples

Contents

1.Pre- and postharvest fungal apple diseases: *Wayne M. Jurick II, USDA-ARS, USA;* 2.Epidemiology and management of apple scab: *Tom Passey, NIAB EMR, UK;* 3.Advances in pest- and disease-resistant apple varieties: *Markus Kellerhals, Agroscope, Switzerland;* 4.Optimizing disease management in fruit cultivation: *Sara M. Villani, North Carolina State University, USA*

Print ISBN: 978-1-80146-288-4 | eBook ISBN: 978-1-80146-289-1 | Pages: 96
Pub. Date: February 2022 | Price: £37.99/$49.99/€45.99 | Series No: 50

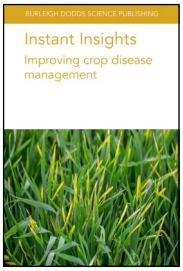


Mycotoxin detection and control

Contents

1.Advances in post-harvest detection and control of fungal contamination of cereals: *Naresh Magan, Cranfield University, UK;* 2.Advances in postharvest storage and handling of barley: methods to prevent or reduce mycotoxin contamination: *Zhao Jin, North Dakota State University, USA;* 3.Preventing mycotoxin contamination in groundnut cultivation: *David Jordan, North Carolina State University, USA;* 4.Mycotoxins in cocoa: causes, detection and control: *Mary A. Egbuta, Southern Cross University, Australia;* 5.Reusing food waste: the importance of mycotoxin detection and decontamination: *F. Ascencio, Centro de Investigaciones Biológicas del Noroeste, Mexico*

Print ISBN: 978-1-80146-075-0 | eBook ISBN: 978-1-80146-076-7 | Pages: 158
Pub. Date: April 2021 | Price: £37.99/$49.99/€45.99 | Series No: 27

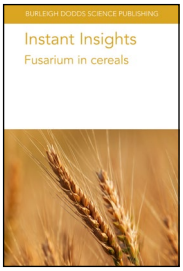


Improving crop disease management

Contents

1.The role of crop rotation, intercropping and tillage practices for foliar disease management of wheat and barley: *T. K. Turkington, Agriculture and Agri-Food Canada, Canada;* 2.Integrated wheat disease management: *Stephen N. Wegulo, University of Nebraska-Lincoln, USA;* 3.Integrated disease management of barley: *Adrian C. Newton, James Hutton Institute and SRUC, UK;* 4.Diseases affecting grain legumes and their management: *Keith Thomas, University of Sunderland, UK*

Print ISBN: 978-1-80146-169-6 | eBook ISBN: 978-1-80146-170-2 | Pages: 104
Pub. Date: August 2021 | Price: £37.99/$49.99/€45.99 | Series No: 38



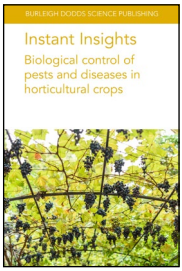
Fusarium in cereals

Contents

1.*Fusarium* diseases: biology and management perspectives: *Edward C. Rojas, University of Copenhagen, Denmark;* 2.Fungal diseases affecting barley: *Robert S. Brueggeman, Washington State University, USA;* 3.Advances in control of wheat diseases: Fusarium head blight, wheat blast and powdery mildew: *Hermann Buerstmayr, University of Natural Resources and Life Sciences, Austria;* 4.Challenges and prospects for fungicidal control of wheat diseases: *R. J. Bryson, BASF SE, Germany*

Print ISBN: 978-1-78676-892-6 | eBook ISBN: 978-1-78676-893-3 | Pages: 118
Pub. Date: November 2020 | Price: £37.99/$49.99/€45.99 | Series No: 02

INSECT PEST MANAGEMENT



Biological control of pests and diseases in horticultural crops

NEW

Contents

1.Advances in biopesticides for insect control in horticulture: *Travis R. Glare, Bio-Protection Research Centre, Lincoln University, New Zealand;* 2.Advances in bioprotectants for plant disease control in horticulture: *Philippe C. Nicot, INRAE, Pathologie Végétale, France;* 3.Effective biocontrol of grape diseases: assessing and improving efficacy: *V. Altieri, Università Cattolica del Sacro Cuore, Italy;* 4.Use of biocontrol agents in fruit tree disease management: *Jürgen Köhl, Wageningen University and Research, The Netherlands*

Print ISBN: 978-1-83545-701-6 | eBook ISBN: 978-1-83545-702-3 | Pages: 148
Pub. Date: October 2026 | Price: £37.99/$49.99/€45.99 | Series No: 131

Novel biocontrol agents

NEW

Contents

1.Developing plant-based biocontrol agents: *Azucena Gonzalez Coloma, Instituto de Ciencias Agrarias – Consejo Superior de Investigaciones Científicas (CSIC), Spain;* 2.Challenges in risk assessment of biopesticides for insect pests: *Shannon Borges, Office of Pesticide Programs – U.S. Environmental Protection Agency, USA;* 3.Advances in the use of entomopathogenic viruses as biopesticides in suppressing crop insect pests: *Martin Erlandson, Agriculture and Agri-Food Canada, Canada;* 4.Possible use of allelochemicals in integrated pest management (IPM): *Toby Bruce, Keele University, UK;* 5.The synergism of biocontrol and plant resistance: a path to advance IPM to higher levels of integration: *Marcos Kogan, Oregon State University, USA*

Print ISBN: 978-1-83545-262-2 | eBook ISBN: 978-1-83545-263-9 | Pages: 140
Pub. Date: December 2025 | Price: £37.99/$49.99/€45.99 | Series No: 120

Managing arthropod pests in cereals

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1.Wheat pests: insects, mites, and prospects for the future: *Marion O. Harris, North Dakota State University, USA;* 2.Advances and challenges in monitoring crop insect pests: the US experience: *Erin W. Hodgson, Iowa State University, USA;* 3.Fescue aphid *(Metopolophium festucae): Sanford D. Eigenbrode, University of Idaho, USA*

Print ISBN: 978-1-80146-645-5 | eBook ISBN: 978-1-80146-646-2 | Pages: 162
Pub. Date: November 2023 | Price: £37.99/$49.99/€45.99 | Series No: 86

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Print ISBN: 978-1-80146-008-8 | eBook ISBN: 978-1-80146-009-5 | Pages: 130
Pub. Date: January 2023 | Price: £37.99/$49.99/€45.99 | Series No: 67

Integrated pest management in cereal cultivation

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1.Integrated pest management for sustainable rice cultivation: a holistic approach: *F. G. Horgan, University of Technology Sydney, Australia;* 2.Integrated pest management in wheat cultivation: *Abie Horrocks, The New Zealand Institute for Plant & Food Research Limited, New Zealand;* 3.Insect pests and their management in sorghum cultivation: *Bonnie B. Pendleton, West Texas A&M University, USA;* 4.Advances in breeding crops resistant to insect pests: rice as a paradigm: *E. A. Heinrichs, University of Nebraska-Lincoln, USA*

Print ISBN: 978-1-80146-600-4 | eBook ISBN: 978-1-80146-601-1 | Pages: 150
Pub. Date: December 2022 | Price: £37.99/$49.99/€45.99 | Series No: 69

Mite pests in agriculture

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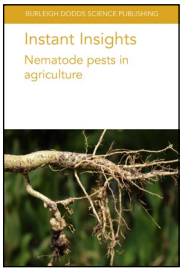
1.Integrated pest management of mites: *Oscar E. Liburd, University of Florida, USA;* 2.Integrated management of mite pests of tree fruit: *Rebecca A. Schmidt-Jeffris, Clemson University, USA;* 3.Bio-ecology of major insect and mite pests of tomato crops in the tropics: *R. Srinivasan, AVRDC – The World Vegetable Center, Taiwan;* 4.Wheat pests: insects, mites, and prospects for the future: *Marion O. Harris, North Dakota State University, USA*

Print ISBN: 978-1-80146-077-4 | eBook ISBN: 978-1-80146-078-1 | Pages: 166
Pub. Date: April 2021 | Price: £37.99/$49.99/€45.99 | Series No: 28

INSECT PEST MANAGEMENT



Nematode pests in agriculture

Contents

1.Integrated pest management (IPM) of nematodes: *Hendrika Fourie, North-West University, South;* Africa; 2.Advances in understanding plant root response to nematode attack: *Shahid Siddique, University of California-Davis, USA;* 3.Wheat pests: introduction, rodents and nematodes: *Marion O. Harris, North Dakota State University, USA;* 4.Nematodes associated with maize: *T. L. Niblack, The Ohio State University, USA;* 5.Nematode pests of potatoes: *Kim Davie, Science and Advice for Scottish Agriculture (SASA), UK*

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Pub. Date: March 2021 | Price: £37.99/$49.99/€45.99 | Series No: 24

Climate change, insect pests and invasive species

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1.Understanding and mitigating the impact of climate change on insect pests and food security: *Kayode David Ileke, Federal University of Technology – Akure, Nigeria;* 2.The impact of climate change on wheat insect pests: current knowledge and future trends: *Sanford D. Eigenbrode, University of Idaho, USA;* 3.Advances in understanding the ecology of invasive crop insect pests and their impact on IPM: *Robert Venette, USDA Forest Service, USA*

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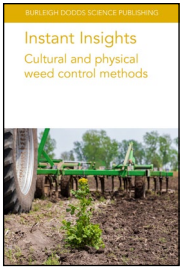
Pub. Date: March 2021 | Price: £37.99/$49.99/€45.99 | Series No: 21

WEED MANAGEMENT



Cultural and physical weed control methods

NEW

Contents

1.Cultural techniques to control weeds in Conservation Agriculture systems: *Francisco Skora Neto, No-till Brazilian Federation (FEBRAPDP)/ formerly Agronomic Institute of Parana (IAPAR), Brazil;* 2.Developments in physical weed control: *Eric R. Gallandt, University of Maine, USA;* 3.Flame weeding techniques: *Stevan Z. Knezevic, University of Nebraska-Lincoln, USA;* 4.Thermal weed control in Conservation Agriculture systems: *Bernhard Streit, Bern University of Applied Sciences, Switzerland;* 5.Advances in mechanical weed control technologies: *Bo Melander, Aarhus University, Denmark*

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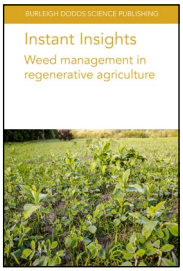
Pub. Date: March 2026 | Price: £37.99/$49.99/€45.99 | Series No: 125



Weed management in regenerative agriculture

Contents

1.Weed management practices and benefits in Conservation Agriculture systems: *Gottlieb Basch, University of Évora, Portugal;* 2.Integrated weed management in organic cropping systems: *Paolo Bàrberi, Scuola Superiore Sant'Anna, Italy;* 3.Cultural techniques to manage weeds: *Matt Liebman, Iowa State University, USA;* 4.The use of rotations and cover crops to manage weeds: *John R. Teasdale, ARS-USDA, USA;* 5.Optimising integrated weed management in narrow-row crops: *L. Bonin, ARVALIS-Institut du Végétal, France*

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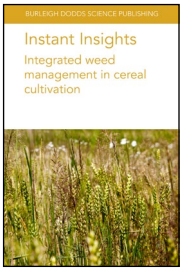
Pub. Date: November 2022 | Price: £37.99/$49.99/€45.99 | Series No: 68



Integrated weed management in cereal cultivation

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1.Integrated weed management in barley cultivation: *Michael Widderick, Department of Agriculture and Fisheries, Australia;* 2.Integrated weed management in wheat cultivation: *K. Neil Harker, Agriculture & Agri-Food Canada, Canada;* 3.Integrated weed management in maize cultivation: an overview: *Khawar Jabran, Duzce University, Turkey;* 4.Integrated weed management techniques for rice: *Simerjeet Kaur, Punjab Agricultural University, India;* 5.The use of allelopathy and competitive crop cultivars for weed suppression in cereal crops: *James M. Mwendwa, Charles Sturt University, Australia*

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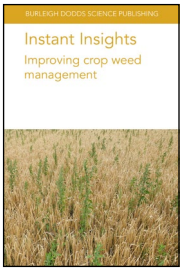
Pub. Date: April 2022 | Price: £37.99/$49.99/€45.99 | Series No: 55



Improving crop weed management

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1.Integrated weed management in wheat cultivation: *K. Neil Harker, Agriculture & Agri-Food Canada, Canada;* 2.Integrated weed management in barley cultivation: *Michael Widderick, Department of Agriculture and Fisheries, Australia;* 3.Weed management of maize grown under temperate conditions: the case of Europe and the United States: *Vasileios P. Vasileiadis, National Research Council (CNR), Institute of Agro-Environmental and Forest Biology, Italy;* 4.Integrated weed management techniques for rice: *Simerjeet Kaur, Punjab Agricultural University, India*; 5.Weed management in sorghum cultivation: *M. Bagavathiannan, Texas A&M University, USA*

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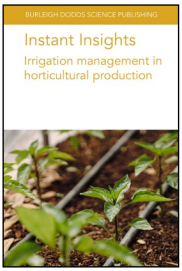
Pub. Date: August 2021 | Price: £37.99/$49.99/€45.99 | Series No: 37

WATER MANAGEMENT



Irrigation management in horticultural production

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1.Advances in irrigation techniques in vegetable cultivation: *Andre da Silva, University of Georgia, USA;* 2.Optimizing precision in orchard irrigation and nutrient management: *Denise Neilsen, Summerland Research and Development Centre, Agriculture and Agri-Food Canada, Canada;* 3.Improving water and nutrient management in tomato cultivation: *E. Simonne, University of Florida, USA;* 4.Advances in irrigation/fertigation techniques in greenhouse soilless culture systems (SCS): *Georgios Nikolaou, Ministry of Agriculture, Rural Development and Environment, Cyprus;* 5.Advances in irrigation practices and technology in ornamental cultivation: *John D. Lea-Cox, University of Maryland, USA;* 6.Advances in irrigation management in greenhouse cultivation: *Stefania De Pascale, University of Naples Federico II, Italy*

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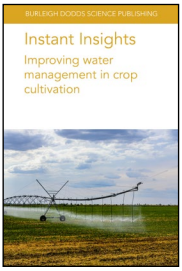
Pub. Date: September 2023 | Price: £37.99/$49.99/€45.99 | Series No: 82



Improving water management in crop cultivation

Contents

1.Site-specific irrigation systems: *Amir Hagverdi, University of California-Riverside, USA;* 2.Deficit irrigation and site-specific irrigation scheduling techniques to minimize water use: *Susan A. O'Shaughnessy, USDA-ARS, USA;* 3.Improving water management in winter wheat: *Q. Xue, Texas A&M AgriLife Research and Extension Center at Amarillo, USA;* 4.Advances in irrigation techniques for rice cultivation: *D. S. Gaydon, CSIRO Agriculture, Australia;* 5.Improving water management in sorghum cultivation: *Jourdan Bell, Texas A&M AgriLife Research and Extension, USA*

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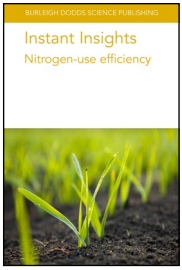
Pub. Date: December 2021 | Price: £37.99/$49.99/€45.99 | Series No: 49

CROP NUTRITION



Nitrogen-use efficiency

Contents

1.Advances in optimising nitrogen-use efficiency in crop production: *J. F. Angus, CSIRO Agriculture and Food and Graham Centre – Charles Sturt University, Australia;* 2.Advances in understanding nitrogen cycling in soil: *Claudia Wagner-Riddle, University of Guelph, Canada;* 3.Challenges and opportunities in breeding for improving nitrogen use efficiency in crops: *Nandula Raghuram, Guru Gobind Singh Indraprastha University, India;* 4.Advances in the understanding of nitrogen (N) uptake by plant roots: *Malcolm J. Hawkesford, Rothamsted Research, UK;* 5.Improving the uptake and assimilation of nitrogen in wheat plants: *Jacques Le Gouis, INRA, France*

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Pub. Date: November 2024 | Price: £37.99/$49.99/€45.99 | Series No: 111

Biofertiliser use in agriculture

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1.Organic fertilizers and biofertilizers: *Lidia Sas Paszt, Research Institute of Horticulture, Poland;* 2.Optimizing the use of treated wastes in crop nutrition: *Sylvia Kratz, Julius Kühn-Institute, Germany;* 3.Safe and sustainable use of bio-based fertilizers in agricultural production systems: *April Leytem, United States Department of Agriculture, USA;* 4.Biofertilizers: assessing the effects of arbuscular mycorrhizal fungi on soil health: *M. J. Salomon, The Waite Research Institute and The School of Agriculture, Food and Wine, The University of Adelaide, Australia;* 5.Biofertilizers: assessing the effects of plant growth-promoting bacteria (PGPB) or rhizobacteria (PGPR) on soil and plant health: *Elisa Zampieri, Institute for Sustainable Plant Protection, Italy*

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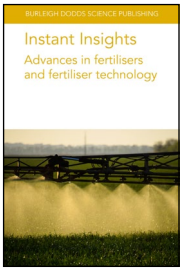
Pub. Date: July 2024 | Price: £37.99/$49.99/€45.99 | Series No: 101



Advances in fertilisers and fertiliser technology

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1.Spray technologies in precision agriculture: *Paul Miller, Silsoe Spray Applications Unit Ltd, UK;* 2.Site-specific nutrient management systems: *Dan S. Long, USDA-ARS, USA;* 3.Developments in the use of fertilizers: *Bryan G. Hopkins, Brigham Young University, USA;* 4.Advances in fertigation techniques to optimize crop nutrition: *Asher Bar-Tal, Agricultural Research Organization (ARO), Israel*

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Pub. Date: January 2024 | Price: £37.99/$49.99/€45.99 | Series No: 89

Biostimulant applications in agriculture

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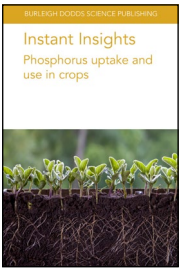
Pub. Date: March 2023 | Price: £37.99/$49.99/€45.99 | Series No: 72

CROP NUTRITION



Phosphorus uptake and use in crops

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1.Advances in understanding plant root uptake of phosphorus (P) uptake: *Jiayin Pang, The University of Western Australia, Australia;* 2.Enhancing phosphorus-use efficiency in crop production: *J. L. Havlin, North Carolina State University, USA;* 3.Delivering improved phosphorus acquisition by root systems in pasture and arable crops: *Richard J. Simpson, CSIRO Agriculture and Food, Australia;* 4.Advances in understanding the environmental effects of phosphorus fertilization: *Andrew N. Sharpley, University of Arkansas, USA*

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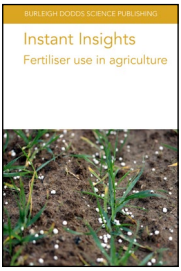
Pub. Date: March 2023 | Price: £37.99/$49.99/€45.99 | Series No: 73



Fertiliser use in agriculture

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1.Organic fertilizers and biofertilizers: *Lidia Sas Paszt, Research Institute of Horticulture, Poland;* 2.Optimising fertiliser use to maintain soil health: *Bijay-Singh, Punjab Agricultural University, India;* 3.Developments in the use of fertilizers: *Bryan G. Hopkins, Brigham Young University, USA;* 4.Decision support systems (DSS) for better fertiliser management: *Dhahi Al-Shammari, The University of Sydney, Australia;* 5.Advances in foliar fertilizers to optimize crop nutrition: *Victoria Fernández, Technical University of Madrid, Spain*

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Pub. Date: September 2021 | Price: £37.99/$49.99/€45.99 | Series No: 41

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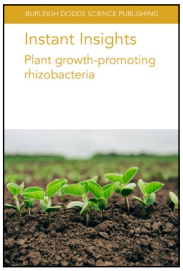
Pub. Date: August 2021 | Price: £37.99/$49.99/€45.99 | Series No: 12



Plant growth-promoting rhizobacteria

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1.Plant growth-promoting rhizobacteria (PGPR) as plant biostimulants in agriculture: *Dongmei Lyu, McGill University, Canada*; 2.The use of plant growth-promoting rhizobacteria (PGPR) to improve root function and crop nutrient use efficiency: *Melissa M. Larrabee, University of British Columbia, Canada*; 3.Bio-effectors to optimize the mineral nutrition of crop plants: *Markus Weinmann, University Hohenheim, Germany*; 4.Plant growth-promoting bacteria (PGPBs) as biocontrol agents against invertebrate pests: *Luca Ruiu, Università degli Studi di Sassari, Italy*

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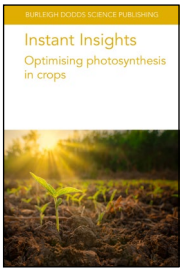
PHYSIOLOGY & BREEDING



Optimising photosynthesis in crops

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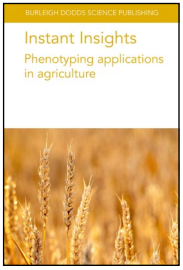

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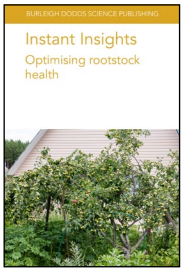

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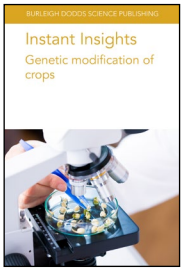

Genetic modification of crops

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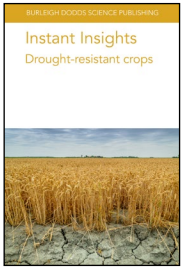

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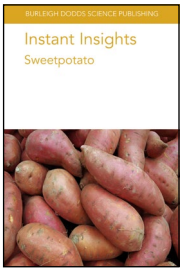

Sweetpotato

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Good agricultural practices

NEW

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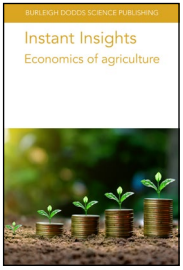

Economics of agriculture

NEW

Contents

1.Economics of agricultural robotics: *James Lowenberg-Deboer, Harper Adams University, UK;* 2.The economics of nitrogen in farming systems and beyond: *David J. Pannell, Sheikh, University of Western Australia, Australia;* 3.Evaluating the economics of integrated weed management: *Pieter de Wolf, Wageningen Plant Research, The Netherlands;* 4.The economics of groundwater development and governance: *T. Shah, International Water Management Institute (IWMI), India*

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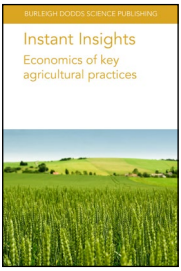

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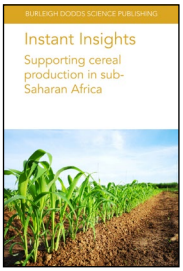

Supporting cereal production in sub-Saharan Africa

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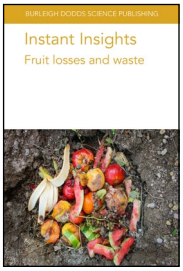

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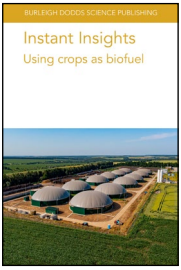

Using crops as biofuel

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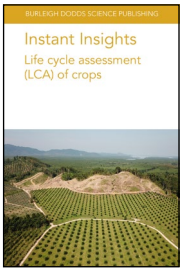

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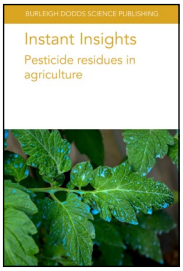

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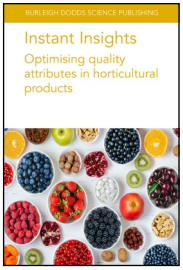
NUTRITIONAL, SAFETY & SENSORY QUALITY



Optimising quality attributes in horticultural products

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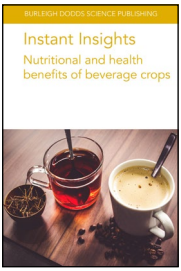
NUTRITIONAL, SAFETY & SENSORY QUALITY



Nutritional and health benefits of beverage crops

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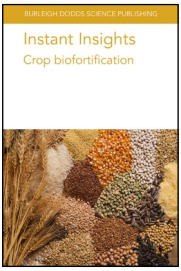

Crop biofortification

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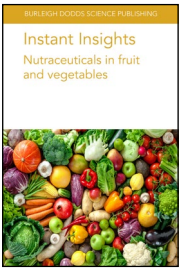

Nutraceuticals in fruit and vegetables

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AGRI-TECH

Controlled environment agriculture

NEW

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1.Research and technology in plant factories with artificial lighting: past, present and future: *Ying Liu, Wageningen University and Research, The Netherlands;* 2.Life cycle assessment of indoor vertical farms: *Michael Martin, IVL Swedish Environmental Research Institute and KTH Royal Institute of Technology, Sweden;* 3.Soilless culture systems and growing media in horticulture: an overview: *Nazim S. Gruda, University of Bonn, Germany;* 4.Advances in screenhouse design and practice for protected cultivation: *Josef Tanny, Agricultural Research Organization – Volcani Center, Israel;* 5. Advances in protected cultivation of ornamentals: *James E. Faust, Clemson University, USA*

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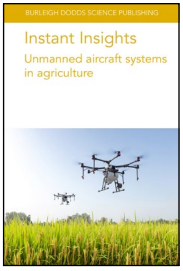
Pub. Date: October 2024 | Price: £37.99/$49.99/€45.99 | Series No: 108



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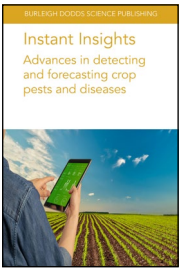

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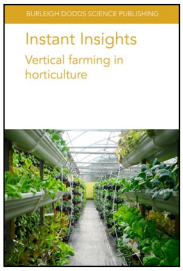

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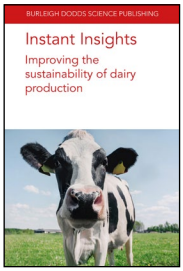

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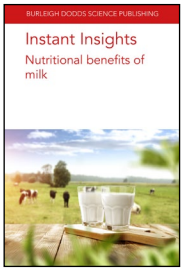

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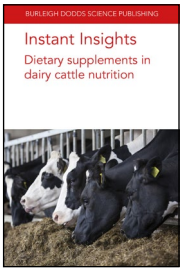

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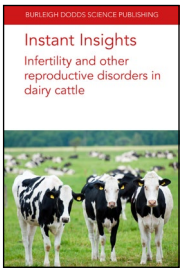

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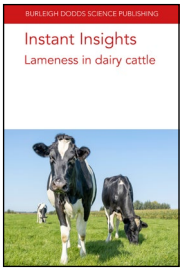
Pub. Date: August 2022 | Price: £37.99/$49.99/€45.99 | Series No: 31



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Pub. Date: July 2022 | Price: £37.99/$49.99/€45.99 | Series No: 30

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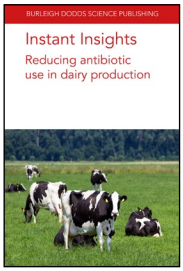

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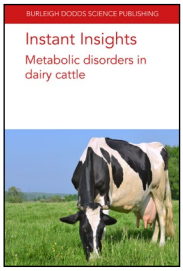

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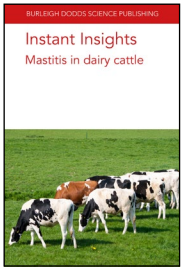

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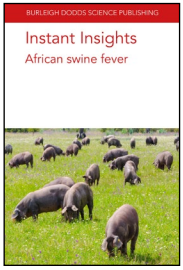
Pub. Date: October 2023 | Price: £37.99/$49.99/€45.99 | Series No: 83



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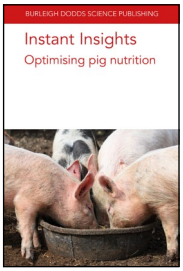

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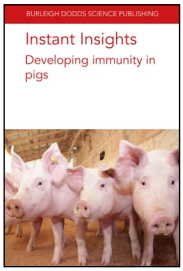
PIGS



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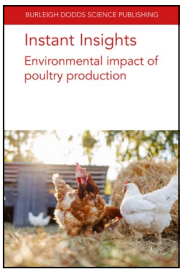
Print ISBN: 978-1-80146-055-2 | eBook ISBN: 978-1-80146-056-9 | Pages: 176
Pub. Date: March 2022 | Price: £37.99/$49.99/€45.99 | Series No: 18

POULTRY



Environmental impact of poultry production

NEW

Contents

1.Assessing and reducing the environmental impact of egg production systems: *Vincent Guyonnet, FFI Consulting, Canada;* 2.Life cycle assessment (LCA) of poultry meat production: *Ilkka Leinonen, Natural Resources Institute Finland (Luke), Finland;* 3.Strategies and solutions to reduce emissions from layer production systems in Europe: *Cécile M. Levrault, Wageningen University and Research, The Netherlands;* 4.Waste management in egg production: *Ruihong Zhang, University of California-Davis, USA;* 5.Valorizing byproducts from broiler processing: biologics and sustainability: *S.C. Ricke, University of Wisconsin- Madison, USA*

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Pub. Date: February 2026 | Price: £37.99/$49.99/€45.99 | Series No: 123

Alternative sources of protein for poultry

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1.Microalgae: a unique source of poultry feed protein: *Sahil Kalia, Cornell University, USA;* 2.Use of protein from black soldier flies in poultry feed: *Teun Veldkamp, Wageningen University, The Netherlands;* 3.Use of protein from yellow mealworms in poultry feed: *Monnye Mabelebele, University of South Africa, South Africa;* 4.Alternative sources of protein for poultry nutrition: an overview: *Paul Iji, University of New England, Australia;* 5.Corn fermented protein from the dry grind ethanol industry as an alternative feed protein for poultry: *Peter Williams, AG-BIO Ltd, UK*

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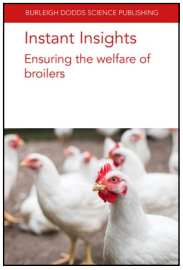
Pub. Date: October 2024 | Price: £37.99/$49.99/€45.99 | Series No: 109



Ensuring the welfare of broilers

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1.Ensuring the welfare of broilers: an overview: *T. B. Rodenburg, Wageningen University, The Netherlands;* 2.Poultry health monitoring and management: bone and skin health in broilers: *Gina Caplen, University of Bristol, UK;* 3.Welfare issues affecting broiler breeders: *Anja Brinch Riber, Aarhus University, Denmark;* 4.Broiler breeding flocks: management and animal welfare: *Ingrid C. de Jong, Wageningen Livestock Research, The Netherlands;* 5.Poultry welfare monitoring: group-level technologies: *Marian Stamp Dawkins, University of Oxford, UK*

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Pub. Date: February 2024 | Price: £37.99/$49.99/€45.99 | Series No: 100

POULTRY

Optimising quality attributes in poultry products

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1.Advances in understanding color development in poultry meat: *Ranjith Ramanathan, Oklahoma State University, USA;* 2.Determinants of egg appearance and colour: *C. Hamelin, CCPA, France;* 3.Enhancing the flavour of poultry meat: *Dinesh D. Jayasena, Uva Wellassa University, Sri Lanka;* 4.Enhancing the nutritional quality of poultry meat: *Michael S. Lilburn, Ohio State University, USA;* 5.Genetics and genomics of meat quality traits in poultry species: *Elisabeth Le Bihan-Duval, INRAE Val-de-Loire, Université de Tours, France;* 6.Molecular breeding techniques to improve egg quality: *Anna Wolc, Iowa State University, and Hy-Line International, USA*

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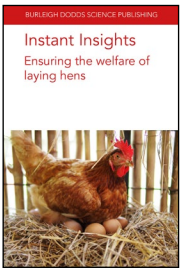
Pub. Date: December 2023 | Price: £37.99/$49.99/€45.99 | Series No: 88



Ensuring the welfare of laying hens

Contents

1.Welfare issues in poultry housing and management: laying hens: *Victoria Sandilands, Scotland's Rural College (SRUC), UK;* 2.Welfare issues affecting free-range laying hens: *Dana L.M. Campbell, University of New England and CSIRO, Australia;* 3.Beak trimming of laying hens: welfare costs and benefits: *Dorothy McKeegan, University of Glasgow, UK;* 4.Bone health and associated problems in layer hens: *Christina Rufener, University of California-Davis, USA;* 5.Genetics and genomics of behavioral and welfare traits in poultry species: *Heng-wei Cheng, Livestock Behavior Research Unit, USDA-ARS, USA and Southwest University, China*

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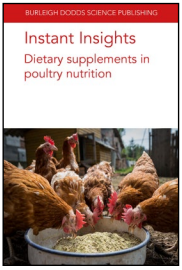

Dietary supplements in poultry nutrition

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1.Advances in understanding and improving the role of enzymes in poultry nutrition: *Bogdan A. Slominski, University of Manitoba, Canada*; 2.The role of probiotics in optimizing gut function in poultry: *Guillermo Tellez, University of Arkansas, USA;* 3.The role of essential oils and other botanicals in optimizing gut function in poultry: *Divek V. T. Nair, University of Minnesota, USA;* 4.Alternative sources of protein for poultry nutrition: *Paul A. Iji, University of New England, Australia;* 5.Microalgae: a unique source of poultry feed protein: *Sahil Kalia, Cornell University, USA*

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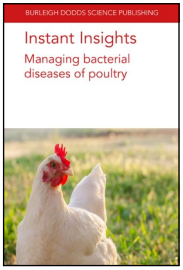
Pub. Date: December 2022 | Price: £37.99/$49.99/€45.99 | Series No: 65



Managing bacterial diseases of poultry

Contents

1.Zoonoses affecting poultry: the case of *Campylobacter: Tom J. Humphrey, Swansea University, UK;* 2.Gastrointestinal diseases of poultry: causes and nutritional strategies for prevention and control: *Raveendra R. Kulkarni, North Carolina State University, USA;* 3.Disease management in poultry flocks: *Peter Groves, University of Sydney, Australia;* 4.Improving biosecurity in poultry flocks: *Jean-Pierre Vaillancourt, Université de Montréal, Canada;* 5.Alternatives to antibiotics in preventing zoonoses and other pathogens in poultry: prebiotics and related compounds: *S. C. Ricke, University of Arkansas, USA*

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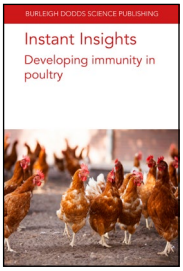
Pub. Date: October 2022 | Price: £37.99/$49.99/€45.99 | Series No: 62



Developing immunity in poultry

Contents

1.Genetics and genomics of immunity and disease traits in poultry species: *M.-H. Pinard-van der Laan, INRAE, France;* 2.Understanding gut function in poultry: the role of commensals, metabolites, inflammation and dysbiosis in intestinalimmune function and dysfunction: *Michael H. Kogut, USDA-ARS, USA;* 3.Nutritional strategies to boost immune response in poultry: *Michael Kidd, University of Arkansas, USA;* 4.Understanding and boosting poultry immune systems: *Rami A. Dalloul, Virginia Tech, USA*

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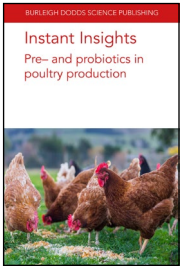
Pub. Date: September 2022 | Price: £37.99/$49.99/€45.99 | Series No: 61



Pre- and probiotics in poultry production

Contents

1.The role of probiotics in optimizing gut function in poultry: *Guillermo Tellez, University of Arkansas, USA;* 2.Role of prebiotics in poultry gastrointestinal tract health, function, and microbiome composition: *Steven C. Ricke, University of Arkansas, USA;* 3.Probiotics, prebiotics and other feed additives to improve gut function and immunity in poultry: *Robert Moore, RMIT University, Australia*

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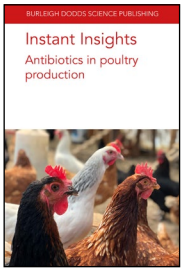
Pub. Date: September 2021 | Price: £37.99/$49.99/€45.99 | Series No: 43

POULTRY



Antibiotics in poultry production

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1.Antibiotics and gut function: historical and current perspectives: *Jeferson M. Lourenço, University of Georgia, USA;* 2.The emergence of antibiotic resistance in poultry farms: *Issmat I. Kassem, The Ohio State University, USA;* 3.Alternatives to antibiotics in preventing zoonoses and other pathogens in poultry: prebiotics and related compounds: *S. C. Ricke, University of Arkansas, USA;* 4.Competitive exclusion (CE) treatment to control pathogens in poultry: *Carita Schneitz, Orion Pharma, Finland*

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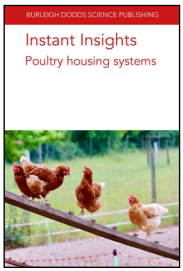

Poultry housing systems

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1.Welfare issues in poultry housing and management: laying hens: *Victoria Sandilands, Scotland's Rural College (SRUC), UK;* 2.The effects of laying hen housing systems on egg safety and quality: *Deana R. Jones, USDA-ARS, USA;* 3.Broiler breeding flocks: management and animal welfare: *Ingrid C. de Jong, Wageningen Livestock Research, The Netherlands;* 4.The contribution of environmental enrichment to sustainable poultry production: *Inma Estevez, Inma Estevez, Neiker-Tecnalia and Ikerbasque (The Basque Foundation for Science), Spain;* 5.The role of perches in chicken welfare: *Lars Schrader, Institute of Animal Welfare and Animal Husbandry – Friedrich-Loeffler-Institut, Germany*

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Feather-pecking in poultry

Contents

1.Cause and prevention of injurious pecking in chickens: *Nienke van Staaveren, University of Guelph, Canada;* 2.Beak trimming of laying hens: welfare costs and benefits: *Dorothy McKeegan, University of Glasgow, UK;* 3.Managing laying hen flocks with intact beaks: *Thea van Niekerk, Wageningen Livestock Research, The Netherlands*

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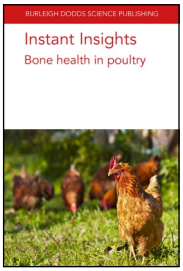

Bone health in poultry

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1.Genetics and genomics of skeletal traits in poultry species: *Martin Johnsson, Swedish University of Agricultural Sciences, Sweden;* 2.Leg disorders in poultry: bacterial chondronecrosis with osteomyelitis (BCO): *Robert F. Wideman, Jr., University of Arkansas, USA;* 3.Bone health and associated problems in layer hens: *Christina Rufener, University of California-Davis, USA;* 4.Poultry health monitoring and management: bone and skin health in broilers: *Gina Caplen, University of Bristol, UK*

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Pub. Date: January 2021 | Price: £37.99/$49.99/€45.99 | Series No: 14

SHEEP

Improving the health and welfare of ewes and lambs

NEW

Contents

1.Improving the welfare of ewes: *A. L. Ridler, Massey University, New Zealand;* 2.The use of precision livestock technologies in managing sheep health and welfare: *Claire Morgan-Davies, Scotland's Rural College (SRUC), UK;* 3.Improving the welfare of lambs: *K. Stafford, Massey University, New Zealand;* 4.Advances in improving lamb survival and health: *C.M. Dwyer, Scotland's Rural College, UK*

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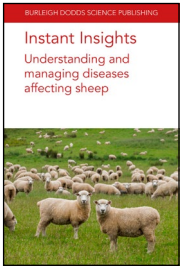
Pub. Date: December 2026 | Price: £37.99/$49.99/€45.99 | Series No: 132



Understanding and managing diseases affecting sheep

NEW

Contents

1.Bacterial and viral diseases affecting sheep: *Francesca Chianini, Moredun Research Institute, UK;* 2.Changing priorities and practices in the management of parasitic gastrointestinal nematodes in small ruminants: *Eric R. Morgan, Queen's University Belfast, UK;* 3.Improving disease surveillance in sheep populations to support preventative flock health management programmes: *Suzanna Bell, Animal and Plant Health Agency (APHA) Veterinary Investigation Centre, UK;* 4.Understanding and improving immune function in sheep: *Gary Entrican, Moredun Research Institute, UK*

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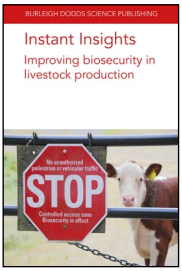
Pub. Date: August 2026 | Price: £37.99/$49.99/€45.99 | Series No: 129

LIVESTOCK MANAGEMENT



Improving biosecurity in livestock production

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1.On-farm strategies for preventing pig diseases: improving biosecurity: *Jeroen Dewulf, Ghent University, Belgium;* 2.Disease identification and management on the pig farm: *Dominiek Maes, Ghent University, Belgium;* 3.Improving biosecurity in poultry flocks: *Jean-Pierre Vaillancourt, Université de Montréal, Canada;* 4.Food safety management on farms producing beef: *Peter Paulsen, University of Veterinary Medicine, Austria;* 5.Biosecurity and safety for humans and animals in organic animal farming: *K. Ellis, Scottish Centre for Production Animal Health and Food Safety, University of Glasgow, UK*

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Sensor technologies in livestock monitoring

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1.Developments in wearable sensors for monitoring livestock: *Mark Trotter, CQ University Institute for Future Farming Systems, Australia;* 2.Poultry welfare monitoring: wearable technologies: *Dana L. M. Campbell, CSIRO, Australia;* 3.Advances in techniques for health monitoring/disease detection in dairy cattle: *Michael Iwersen, University of Veterinary Medicine Vienna, Austria;* 4.Advances in precision livestock farming techniques for monitoring dairy cattle welfare: *Henk Hogeveen, Wageningen University and Research, The Netherlands;* 5.Advances in technologies for monitoring pig welfare: *Maciej Oczak, University of Veterinary Medicine Vienna, Austria*

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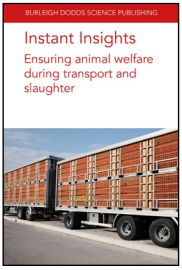

Ensuring animal welfare during transport and slaughter

Contents

1.Optimizing welfare in transport and slaughter of cattle: *Jan Shearer, Iowa State University, USA;* 2.Ensuring the welfare of culled dairy cows during transport and slaughter: *Carmen Gallo, Animal Welfare Programme, Faculty of Veterinary Science, Universidad Austral de Chile, Chile;* 3.Optimising pig welfare during transport, lairage and slaughter: *Luigi Faucitano, Agriculture and Agri-Food Canada, Canada;* 4.Improving welfare in poultry slaughter: *Dorothy McKeegan, Institute of Biodiversity, Animal Health and Comparative Medicine, University of Glasgow, UK;* 5.Humane transport, lairage and slaughter of sheep: *P. H. Hemsworth, University of Melbourne, Australia*

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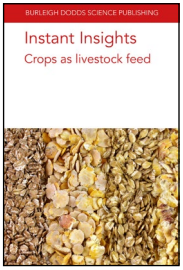

Crops as livestock feed

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1.The use of feedlot/cereal grains in improving feed efficiency and reducing by-products such as methane in ruminants: *Kristin Hales, US Meat Animal Research Center – USDA-ARS, USA;* 2.The use and abuse of cereals, legumes and crop residues in rations for dairy cattle: *Michael Blümmel, International Livestock Research Institute (ILRI), Ethiopia;* 3.Optimising the use of barley as an animal feed: *David M. E. Poulsen, Queensland University of Technology, Australia;* 4.Sorghum as a forage and energy crop: *Scott Staggenborg, Chromatin Inc., USA;* 5.Nutritional considerations for soybean meal use in poultry diets: *Justin Fowler, University of Georgia, USA*

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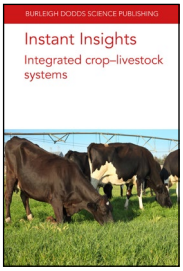

Integrated crop–livestock systems

Contents

1.Integrated crop/livestock systems with agroforestry to improve organic animal farming: *A. J. Escribano, Nutrion Internacional, Spain;* 2.Integration of crop-livestock in Conservation Agriculture systems: *John N. Landers, Independent Consultant, Brazil;* 3.The contribution of integrated crop–livestock systems in combatting climate change and improving resilience in agricultural production to achieve food security: *Mark van Wijk, International Livestock Research Institute (ILRI), Kenya;* 4.Integrating livestock production into whole-farm system models of mixed crop–livestock systems: *Katrien Descheemaeker, Wageningen University and Research, The Netherlands*

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Pub. Date: June 2021 | Price: £37.99/$49.99/€45.99 | Series No: 33

Environmental impact of livestock production

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1.Assessing the environmental impact of ruminant production systems: *Taro Takahashi, Rothamsted Research and University of Bristol, UK;* 2.Quantifying the role of livestock in climate change: *Julie Wolf, USDA-ARS, USA;* 3.Assessing the environmental impact of swine production: *G. J. Thoma, University of Arkansas, USA;* 4.Life cycle assessment (LCA) of intensive poultry production systems: *Ilkka Leinonen, Newcastle University, UK;* 5.Assessing the environmental impact of sheep production: *S. F. Ledgard, AgResearch Ruakura Research Centre, New Zealand*

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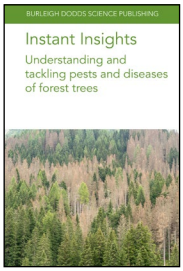
FORESTRY



Understanding and tackling pests and diseases of forest trees

NEW

Contents

1.Advances in understanding and managing fungal and other diseases of forest trees: *Tod Ramsfield, Natural Resources Canada, Canada;* 2.Pathogens in tropical forests: diversity and management: *Steve Woodward, University of Aberdeen, UK;* 3.Advances in understanding and managing insect pests of forest trees: *Barbara Bentz, USDA Forest Service, Rocky Mountain Research Station, USA;* 4.Using *Verticillium albo-atrum* WCS850 to control Dutch elm disease: *Joeke Postma, Wageningen University & Research, The Netherlands*

Print ISBN: 978-1-83545-658-3 | eBook ISBN: 978-1-83545-659-0 | Pages: 152
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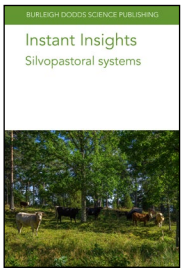

Silvopastoral systems

NEW

Contents

1.Types of silvopastoral system: an overview: *Jim McAdam, Queen's University Belfast and Irish Agroforestry Forum, Ireland;* 2.Integrating tree crops and livestock in silvopastoral systems: *Adolfo Rosati, Research Centre for Olive, Fruit and Citrus Crops – Council for Agricultural Research and Economics (CREA), Italy;* 3.Agroforestry practices: silvopastoralism: *Gerardo Moreno, INDEHESA, Institute for Silvopastoralism Research, University of Extremadura, Spain*

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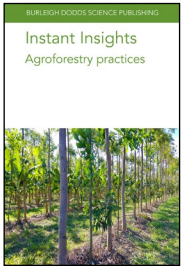

Agroforestry practices

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1.Integrated crop–livestock systems with agroforestry to improve organic animal farming: *A. J. Escribano, Nutrion Internacional, Spain;* 2.Tree planting and management in agroforestry: *Lydie Dufour, INRA, France;* 3.Temperate alley cropping systems: *Diomy S. Zamora, University of Minnesota, USA;* 4.Sustainable production of willow for biofuel use: *M. Weih, Swedish University of Agricultural Sciences, Sweden;* 5.The importance of agroforestry systems in supporting biodiversity conservation and agricultural production: a European perspective: *M. R. Mosquera-Losada, University of Santiago de Compostela, Spain*

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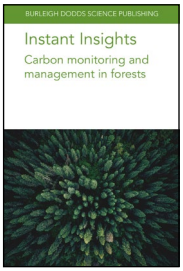

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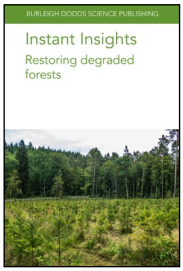

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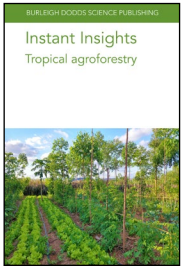

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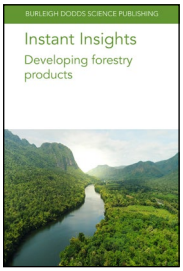

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