# Advances in pig nutrition

Edited by Professor Julian Wiseman, University of Nottingham, Ul



burleigh dodds

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### New title information

## Advances in pig nutrition

Edited by: Professor Julian Wiseman, University of Nottingham, UK

#### **Description:**

Pig nutrition faces many challenges, including the need to meet the changing requirements of animals as they grow whilst minimising environmentally damaging nutrient losses.

Additionally, with growing crops for feed seen as a significant contributor to climate change, there is an emerging consensus that the sector must seek alternative, more sustainable feed sources which have a reduced impact on the environment.

Advances in pig nutrition provides a comprehensive overview of the range of research addressing these challenges. The book addresses recent advances in understanding feed intake and feed formulation, focusing on advances in understanding pig nutritional requirements and ensuring feed safety.

This collection also reviews the role of feed additives in optimising pig nutrition, including amino acids, probiotics and prebiotics, as well as alternative growth promoters and exogenous enzymes.

#### **Key features:**

- Provides a comprehensive overview of the range of feed additives utilised by the sector to optimise pig nutrition, including amino acids ad exogenous enzymes
- Considers both established and emerging alternative feed sources for pigs, such as insects and corn fermented protein
- Addresses the key challenges in developing nutritional guidelines to achieve optimal growth whilst also minimising costs and environmental impact

#### Audience:

University and other researchers in swine and veterinary science, animal nutritionists, feed manufacturers, advisors consulting swine farmers on aspects of health and nutrition, as well as government and private sector agencies supporting global pig production

#### **Editor details:**

**Dr Julian Wiseman** is Emeritus Professor of Animal Production at the University of Nottingham, UK. He has published widely in the area of non-ruminant nutrition and product quality, has presented papers at some of the leading international conferences in this area and has written or edited a number of books on animal nutrition. He was co-organiser of the annual Nottingham Feed Conference. Professor Wiseman is editor of two earlier Burleigh Dodds Science volumes: Achieving sustainable production of pig meat Volume 2 Animal breeding and nutrition; and Achieving sustainable production of pig meat Volume 3: Animal health and welfare (both published in 2017).



### New title information

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#### Part 1 Feed intake

- 1.Advances in understanding pig nutritional requirements and metabolism: an overview: Robert van Barneveld, Barneveld Nutrition Pty Ltd, Australia
- 2.Advances in understanding pig digestive physiology: John O'Doherty, University College Dublin, Ireland

#### Part 2 Feed formulation

- 3.Developing nutritional guidelines for pigs: Olayiwola Adeola, Purdue University, USA
- 4.Modelling feed requirements for pigs: Charlotte Gaillard, INRA, France
- 5.New approaches for determining the nutritional value of pig feed: Gerald C. Shurson, University of Minnesota, USA
- 6.Ensuring pig feed safety: Chad Paulk, Kansas State University, USA

#### Part 3 The role of feed additives in optimising pig nutrition

- 7.Understanding and optimizing the use of amino acids in pig nutrition: Sung Woo Kim, North Carolina State University, USA
- 8.Understanding and optimizing the use of probiotics and prebiotics in pig nutrition: Knud Erik Bach Knudsen, Aarhus University, Denmark
- 9.Understanding and optimizing the use of exogenous enzymes in pig nutrition: Mike Bedford, ABVista, UK
- 10.Advances in understanding vitamin and mineral requirements and their role within pig diets: Thomas Crenshaw, University of Wisconsin, USA
- 11.The use of growth promoters in pig nutrition: William Oliver, USDA-ARS, USA

#### Part 4 Alternative feed sources

- 12.Developing alternative sources of feed for pigs: an overview: Ruurd Zijlstra, University of Alberta, Canada
- 13.Developing alternative sources of protein in pig nutrition: insects: Kristy DiGiacomo, University of Melbourne, Australia
- 14.Developing feed sources in organic pig production: Anne Grete Kongsted, Aarhus University, Denmark
- 15.Corn fermented protein from the dry grind ethanol industry as an alternative feed protein for swine: Peter Williams, AG-BIO Ltd, UK

#### **Related products:**

Achieving sustainable production of pig meat Volume 2, 978-1-78676-092-0, 09 Oct 2017, GBP 160.00, EUR 190.00, USD 210.00, CAD 270.00, and AUD 290.00

Developing animal feed products, 978-1-78676-463-8, 15 Jun 2021, GBP 150.00, EUR 180.00, USD 195.00, CAD 255.00, and AUD 270.00

 $Optimising \ pig \ herd \ health \ and \ production, 978-1-78676-883-4, 31 \ Oct \ 2022, GBP \ 150.00, EUR \ 180.00, USD \ 195.00, CAD \ 255.00, and \ AUD \ 270.00$ 

Seaweed and microalgae as alternative sources of protein, 978-1-78676-620-5, 14 Sep 2021, GBP 140.00, EUR 170.00, USD 180.00, CAD 240.00, and AUD 250.00

Understanding gut microbiomes as targets for improving pig gut health, 978-1-78676-487-4,  $11 \, \text{Jan} \, 2022$ , GBP 150.00, EUR 180.00, USD 195.00, CAD 255.00, and AUD 270.00

