1. Record Nr. UNINA9910678146203321 Sustainable swine nutrition / / edited by Lee I. Chiba, Professor Titolo Department of Animal Sciences Auburn University Auburn, Alabama. USA Hoboken, New Jersey:,: John Wiley & Sons, Inc.,, [2023] Pubbl/distr/stampa ©2023 **ISBN** 1-119-58399-3 1-119-58393-4 1-119-58398-5 Edizione [Second edition.] Descrizione fisica 1 online resource (755 pages) 636.40852 Disciplina Soggetti Swine - Nutrition Swine - Feeding and feeds Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Cover -- Title Page -- Copyright Page -- Contents -- Contributors --Preface -- Editor -- Part I Fundamental Nutrition -- Chapter 1 Digestive Physiology and Nutrition of Swine -- Introduction -- Anatomy of the Porcine Digestive System -- The Oral Cavity -- Pharynx, Esophagus, Stomach, and Omentum -- Small intestine -- Large intestine -- The Pancreas -- The Liver -- The Gut-AssociatedLymphoid Tissue (GALT) -- Gut Motility, Transit Time, and the Ileal Brake --Nutrient Digestion -- Protein and Amino Acid Digestion -- Nonfiber Carbohydrates Digestion -- Fiber Digestion -- Fat Digestion --Nutrient During Digestion -- Effects of Grain Processing and Starch Structure on Nutrient Digestibility -- Nutrient Sensing and the Gut-BrainAxis -- Enteroendocrine System (EES) -- Developing GIT in Piglets -- Digestive Secretions in the Young Pig -- Postweaning Feeding Practices -- References -- Chapter 2 Water in Swine Nutrition --Introduction -- Water Content of the Body -- Water Balance -- Water Intake -- Water Excretion -- Water Consumption by Different Classes of Pigs -- Gestating Sows -- Lactating Sows -- Suckling Pigs --

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## Sommario/riassunto

"As climate change continues to have a significant impact on the modern world, it is crucial to find alternative sources of energy and nutrients for swine production. The development of optimal feeding revolves around a multitude of considerations--genetic variations in the pig, variability, availability, and stability of nutrients in feed ingredients, interactions among nutrients and non-nutritive factors. voluntary feed intake, physical (& social) environment of pigs, and more. Establishing the ideal network of factors will only grow in importance as humans assess the methods for our own food networks. Sustainable Swine Nutrition is a comprehensive book on swine nutrition, covering some fundamental aspects of nutrition--namely digestive physiology, water, protein or amino acids, lipids, carbohydrates, energy metabolism, vitamins, minerals, and nutrition and immunology. Providing the most up-to-date information on each of these areas, a major emphasis of this second edition is on recent developments and current advances in the field, with a focus on pertinent issues linked with energy and nutrients. In doing so, the book highlights topics and issues that can contribute to the ultimate goal of successful and sustainable swine production. Sustainable Swine Nutrition readers will also find: \* Environmentally friendly, optimal feeding strategies for successful and sustainable swine production \* Recent developments, such as alternative feedstuffs, feed additives, and bioavailability \* Expanded treatment and new chapters on swine physiology, energy and protein, technology, and more Sustainable Swine Nutrition, Second Edition, is an ideal resource for livestock scientists and industry professionals involved in all aspects of pork production"--