Productive Performance Of Holstein Calves Finished In

The past decade has revealed unfavourable trends in e.g. fertility, udder health and locomotion in some major dairy cattle breeds due to a large increase in production and insufficient consideration of functional traits in the breeding goals. Such unfavourable trends in some functional traits increase costs. Additionally, the enlargement of herds leads to less available labour time per individual cow. This asks for cows that are easy to handle. At the same time, society is demanding a higher welfare standard of animals. These contradicting developments have increased the desire for so called more robust animals. Robustness can be defined as 'the ability to maintain homeostasis in commonly accepted and sustainable herds of the near future'; or 'the ability of the cow to function well in the environment she lives in as well as in a wide range of climates and production systems'. This book contains a series of articles (26) dealing with the concept of robustness, including aspects like evolution, genetics, environment, animal health and welfare, and integrity. Besides the major functional traits also the links to energy balance, hot climatic conditions, and the attitude and input of stakeholders towards robustness as part of the breeding program are discussed. This book is the first attempt to summarise the available knowledge concerning this topic in cattle, making this book unique. The contributions are from authors of 16 countries from all over the world. However, the focus is presently on farm animal level, while in future robustness of the whole production system may also require additional attention.

Introduction; Importance of the study; Objectives of the study; Review of literature; Productive performance; Dairy animals for philipine conditions; Some factors affecting milk yield; Milk production records; The performance of holstein and their fractional crosses; Reproductive performance; Number of services per conception; Days open; Calving interval; Age at first calving; Birth weight of calves; Effects of season of calving to milk production; Daily vs. regular interval milk recording; The DTRI farm management system; Feeding management; Breeding and health management; Milking management; Materials and methods; Time and location of the study; Data collection; Statistical analyses; Results and discussion; Productive performance; Actual milk yield; Lactation length; Reproductive performance; Calving interval; Days open; Services per conception; Age at first calving; Information on calves; Calf weight; Sex ratio of calves; Incidence of abortions and stillbirths by blood group; Milk production as affected by season of calving; Daily vs. regular interval milk recording; Summary of results; Conclusions, implications and recommendations; Literature cited; Appendices.

Dr. Anjali Aggarwal is working as a Senior Scientist at National Dairy Research Institute, Karnal (India). She holds a PhD degree in Animal Physiology and is involved in research and teaching at post-graduate level. Her area of research work is stress and environmental physiology. She has more than 50 publications, two technical bulletins, four manuals and many book chapters to her credit. She has successfully guided many post-graduate and PhD students. Her major research accomplishments are on microclimatic modification for alleviation of heat and cold stress, mist and fan cooling systems for cows and buffaloes, and use of wallowing tank in buffaloes. Her work involves the use of technology of supplementing micronutrients during dry period and early lactation to crossbred and indigenous cows for alleviating metabolic and oxidative stress and improved health and productivity. Studies are also done in her lab on partitioning of heat loss from skin and pulmonary system of cattle and buffaloes as a result of exercise or exposure to heat stress. Dr. R.C. Upadhyay is working as Head, Dairy Cattle Physiology Division at National Dairy Research Institute, Karnal (India). He graduated in Veterinary Sciences and obtained his PhD degree in Animal Physiology. His area of recent research is climate change, stress, and environmental physiology. His major research accomplishment is on climate change impact assessment of milk production and growth in livestock. His work also involves studying methane conversion and emission factors for Indian livestock and use of IPCC methodology of methane inventory of Indian livestock. Heat shock protein-70 expression studies in cattle and buffaloes are also done in his lab. Draught animal power evaluation, fatigue assessment, work-rest cycle and work limiting factors form the highlights of his work. Studies on partitioning of heat loss from skin and pulmonary system of cattle and buffaloes and electrocardiographic studies in cattle, buffalo, sheep and goat are also undertaken in his lab. He has more than 75 research papers, four books and several book chapters to his credit. Technologies developed and research done by him include methodology of methane measurement: open and closed circuit for cattle and buffaloes; inventory of methane emission from livestock using IPCC methodology; livestock stress index: thermal stress measurement based on physiological functions; and draught power evaluation system and large animal treadmill system. He received training in Radio-nuclides in medicine at Australian School of Nuclear Technology, Lucas heights, NSW, Australia in 1985 and Use of radioisotopes in cardiovascular investigations at CSIRO, Prospect, NSW, Australia, during 1985-86. He has guided several post-graduate and PhD students. He is recipient of Hari Om Ashram Award-1990 (ICAR) for outstanding research in animal sciences.

Book of Abstracts of the 69th Annual Meeting of the European Federation of Animal Science

The Importance of the Environment
Heat Stress and Animal Productivity
Human-livestock Interactions
Calf and Heifer Rearing

The greatest challenge of our time is to produce sufficient food ot keep pace with the rapidly growing population. In the opinion of experts, during the next 25 years there will be a need for as much food as was produced in the entire history of mankind to date. Of the various measures available, improvement in agricultural productivity is judged as the ultimate means of augmenting food production and supplies. In this Handbook, an international team of experts consider the most important factors affecting production of both crops and livestock. This Handbook is intended as a scientific guide to practitioners and students, as well as to researchers, who should find here stimulating ideas for further exploration.

This issue of Veterinary Clinics: Food Animal Practice, Guest Edited by Dr. Nigel B. Cook, in collaboration with Consulting Editor Dr. Robert Smith, focuses on Housing to Optimize Comfort, Health and Productivity of Dairy Cattle. Article topics include: The housing dilemma: natural living vs. animal protection; Calf barn design and management; Lying time and its importance to the dairy cow: impact of stocking density and time budget stresses; Feeding behavior, feed space and bunk design, and management for adult dairy cattle; Maximizing comfort in tiestall housing; Free stall design and bedding management; Maternal behavior and design of the maternity pen; Housing the cow in transition to optimize early lactation performance; Ventilation systems for adult dairy cattle; Cooling systems for dairy cows; Designing dairy herds with automated milking systems; and Low stress handling areas for dairy cow barns.

Dairy cattle is the main producer of animal protein for the nutrition of the world's population. For farmers, peasants and nomads it is one of the fundamental sources of income and subsistence. This volume covers the world distribution of dairy cattle; breeding and feeding as the basis of milk production; milk composition and sanitary and health aspects from the nutritional view point; and management of dairy herds and dairy cattle in the tropics as milk production systems. Illustrations and figures, tables and main references are included for each chapter. Related information on the domestication of dairy cattle can be found in World Animal Science Vol. A1, on production systems in Vol. A2, on physiology of milk production in Vol. A3, on animal genetics in Vol. A4, on ethology and behaviour in Vol. A5, and on grassland production in Vol. B1. The volume is intended for teachers of dairy husbandry and graduate students, scientists, and officers and advisors working in the field of dairy cattle and milk production.

Sustainability, Challenges and Innovations
The Stockperson and the Productivity and Welfare of Intensively Farmed Animals
Seventh Revised Edition, 2001
Dairy Development in Ethiopia
A Global Assessment of Emissions and Mitigation Opportunities
Nutritional strategies for optimal productivity and efficiency

Issues in Animal Science and Research / 2011 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Animal Science and Research. The editors have built Issues in Animal Science and Research: 2011 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Animal Science and Research in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Issues in Animal Science and Research: 2011 Edition has been prod by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at http://www.ScholarlyEditions.com/.

This study was an extension of a study submitted in April 2014 by Sheldon D. Holt entitled 0??Ambient Temperature, Calf Intakes, and Weight Gains on Preweaned Dairy Calves0?+. A major component in a profitable dairy operation is the raising of female calves as replacement heifers; but since no direct income is generated by calf raising alone, it is often overlooked as a potential profit area on a dairy farm. Calf management practices that ultimately impact milk productivity and reproductive performance during a heifer0?9s lifetime begin at birth. This study examines the effect of calf starter intake on calf growth, measuring specifically calf weight. How calf starter intake affected production costs was also examined. Other factors included in the study were seasonal change, hip height, days since birth, and weather conditions. The cost of calf starter is one of the main contributors to total production cost in raising dairy calves. Since the amount of starter intake consumed by the calves in this study was measured by Holt, a cost analysis can be performed using these data. Therefore, the first two objectives of this study are to 1) develop a model which minimizes cost of starter feed (which is a variable controlled by the da producer) and 2) use the model developed under objective 1) to find the breakeven point (where the cost of an input is less than or equal to the value gained from that input) and conduct sensitivity analysis with respect to this point. Although an analysis was performed on the data at the close of its collection in 2014 by S.D Holt, there are several econometric issues that were not adequately addressed before these analyses were performed. The following problems have been found in the data: functional form, multicollinearity, heteroskedasticity, and serial correlation. Any interpretation or prediction based on these data, without these issues being resolved, is not reliable. In order for interpretations and predictions based on these data to be valid, the last two objectives of this study are to 3) define in detail the econometric problems that existed in Holt0?9s study and 4) find and implement solutions to econometric problem that existed in that study.

Globally, dairy and meat production has become an extremely competitive industry. The world milk production is predicted to grow significantly by 2020 with the emergence of new consumers in developing countries. Yet, there is still intense competition for the industry to attract and retain consumers in the more established markets. Consumers continue to demand safe, high quality milk and meat products at competitive prices compared to other high protein food alternatives. To ensure the sustainability of both dairy and beef industries, producers must endeavour to seek new technologies to improve production efficiency whilst lowering the cost of production to produce a quality product. This edited collection of papers is taken from a seminar that brought together some of the world's leading authorities in the field of ruminant nutrition and production. The fundamental theme is to re-examine the current trends in productivity within the dairy and beef industries, and to identify nutritional and managerial means to improve competitiveness. The papers also consider the importance of animal health together with novel strategies for disease control. 'Gaining the edge in ruminant production: Nutritional strategies for optimal productivity and efficiency' is aimed at nutritionists, veterinarians and animal producers as well as students and researchers studying animal and applied biological sciences

Urea-molasses Multinutrient Blocks : Simple and Effective Feed Supplement Technology for Ruminant Agriculture
Improving the Welfare of Dairy Cows and Calves
Federal Grants and Contracts for Unclassified Research in the Life Sciences
Dairy Production Medicine
Information Resources for the Care and Welfare of Dairy Cattle
NorFor -

In facing ever more limited resources and changing market conditions and in the attempt to enhance productivity for strengthening livelihoods, many technologies have been used to improve feed use and animal performance at the faro level. A particularly successful example, in terms of both geographic range of use and relative simplicity in formulation and preparation, is the urea-molasses multi-nutrient block technology. This publication provides a comprehensive overview of development and use of the block technology in countries around the world and it might be of great practical value to extension workers, students, researchers and those thinking of using such feed supplementation technology or of starting commercial production.--Publisher's description.

The ability of nutritional supplements to generate responses in productive animals at different physiological stages, and their interaction with the particular gastrointestinal tract of ruminants have created the necessity to explore effects beyond productivity. Modulation of immune function and inflammatory processes, modifications of nutrient metabolism, and interactions with the ruminal microbial population are effects attributed to supplements that encouraged the formulation of the set of experiments described in this dissertation. The first experiment was designed to test the effects of arachidonic and docosahexaenoic acids supplemented in milk replacer for Holstein calves during the pre-weaning period on the immune system, lipid and glucose metabolism, and growth performance when animals underwent a vaccination protocol. Neither supplemental fatty acid source affected productivity, cytokine production, antibody production, or CD4 and CD8 cell proliferation. A treatment effect on glucose and NEFA plasma concentration was observed. Polyunsaturated fatty acids, mainly DHA, lowered glucose and NEFA levels compared to control; moreover, a dose effect was observed indicating that increasing amounts of PUFA decreased plasma glucose level. The second experiment tested the effects of Co carbonate (CoCarb) and Co glucoheptonate (CoGH) at different concentrations of Co on in vitro fermentation rate, fermentation end-products, and DM and NDF disappearance. Dry matter and NDF disappearance increased with CoGH relative to CoCarb at 1.0 ppm Co or less. CoCarb at> 3.0 ppm appeared to stimulate the biohydrogenation of long-chain fatty acids whereas CoGH had limited effects on this process. Finally, the third study evaluated responses to chromium propionate during peak lactation and interactions between chromium and rumen-protected lysine and methionine. Chromium propionate increased feed intake and tended to increase energy-corrected milk yield. Primiparous cows showed greater responses in feed intake and milk protein yield than multiparous cows. In this study, feeding chromium propionate near peak lactation increased feed intake and tended to increase productivity but no benefits of supplementing rumen-protected lysine and methionine were observed. Overall, nutritional supplements helped to regulate different biological functions in ruminants; their utilization is not always is feasible, but the results of these experiments provide guidance about effectiveness during different physiological situations.

NorFor is a semi-mechanistic feed evaluation system for cattle, which is used by advisors in Denmark, Iceland, Norway and Sweden. This book describes in detail the system and it covers five main sections. The first is concerned with information on feed characteristics, feed analysis and feed digestion methods. The second section describes the digestion and metabolism in the gastrointestinal tract and the supply and requirement of energy and metabolizable amino acids. The third section considers the prediction of feed intake and physical structure of the diet. The fourth section focuses on model evaluation and the final section provides information on the IT solutions and feed ration formulation by a non-linear economical optimization procedure. This book will be of significant interest to researchers, students and advisors of cattle nutrition and feed evaluation.

Blueprints for Tropical Dairy Farming
Gaining the edge in ruminant production
1996-2002
Tackling Climate Change Through Livestock
An Economic Analysis of Factors Affecting Pre-weaned Dairy Calf Growth and Profit Optimization in Dairy Calf Operations
The Nordic feed evaluation system

The second edition of this book contains chapters that discuss the role of the stockperson in animal welfare, including attitudes, human-animal interactions, human and animal behaviour and improvement of human-animal interactions in animal production. This book is intended for those with an interest in human-animal interactions, including trainers, livestock farm managers, students and academics.

Contains a selection of White Papers, commissioned to better inform the exploration of cattle welfare. These are prepared by notable experts in their field, to help provide factual context around selected topics that impact cattle welfare and production systems. Covers all aspects of cattle use in an accessible style, making this a must have volume for anyone interested in cattle welfare or cattle medicine. Provides an in-depth picture of the distinctive beef and dairy cattle welfare practices and issues, covering topics such as behavior, breeding and genetic manipulation, nutrition and feeding, housing and management, health and disease, and transport and slaughter. Written by acknowledged leaders in animal science, veterinary science, philosophy and animal welfare, presenting a truly multidisciplinary perspective on cattle welfare. Includes a section on understanding and managing animal welfare in both beef and dairy cattle, discussing how cattle perceive the world, animal handling and pain mitigation, and how to assure that the cows have a reasonably good life. The Welfare of Cattle offers an accurate, detailed account of the ethical and welfare concerns related to the human use of cattle. There is currently no significant book dealing with the welfare of cows, animals often seen as archetypal paradigms of 'farm animals'. Covering both beef and dairy cattle, the expert authors provide in-depth information on the husbandry roots of traditional agriculture, the replacement of this system of stewardship by an industrial model, and the resulting welfare challenges associated with industrial agriculture: feedlots, highly industrialized dairies, and slaughterhouses killing huge numbers of animals who have been transported great distances. This important book explores in detail the ways in which people who are providing care for cattle can take their first step, or their next step, toward enhancing the welfare of these animals. An extra chapter (online only) is available in the 'Downloads' tab on the left: Dairy Nutrition, by Michael Gamroth

This book offers a comprehensive overview of the state of the art in sustainable dairy production, helping the industry to develop more sustainable dairy products, through new technologies, implementing life cycle analysis, and upgrading and optimization of their current production lines. It aims to stimulate process innovations, taking into account environmental, economic and public relations benefits for companies. Topics covered include: How to set up a sustainable production line How to quantify the carbon foot print of a dairy product by using life cycle analysis Current technologies to improve the carbon foot print What measures can be taken to reduce the global warming potential of the farm Reduction of water use in dairy production Marketing sustainable dairy products Bench marking of dairy products against other food products Potential future technological developments to improve the carbon foot print for the following decades

Farm health and productivity management of dairy young stock
Dubrovnik, Croatia, 27-31 August 2018
The Welfare of Cattle
Dairy Farm Management: Securing Animal Health, Well-being and Productivity
The Effects of Varying Blood Compositions on the Productive and Reproductive Performance of Dairy Cows
Handbook of Agricultural Productivity

Issue for Fiscal year 1954 accompanied by separately published section with title: Projects listed by agencies.

This widely used reference has been updated and revamped to reflect the changing face of the dairy industry. New features allow users to pinpoint nutrient requirements more accurately for individual animals. The committee also provides guidance on how nutrient analysis of feed ingredients, insights into nutrient utilization by the animal, and formulation of diets to reduce environmental impacts can be applied to productive management decisions. The book includes a user-friendly computer program on a compact disk, accompanied by extensive context-sensitive "Help" options, to simulate the dynamic state of animals. The committee addresses important issues unique to dairy science-the dry or transition cow, udder edema, milk fever, low-fat milk, calf dehydration, and more. The also volume covers dry matter intake, including how to predict feed intake. It addresses the management of lactating dairy cows, utilization of fat in calf and lactation diets, and calf and heifer replacement nutrition. In addition, the many useful tables include updated nutrient composition for commonly used feedstuffs.

"Feed efficiency is increasingly seen as an important factor in both the economic viability and environmental sustainability of cattle production. This book provides beef industry professionals and researchers with a thorough yet concise overview of feed efficiency research. Coverage includes efficient production in a wide range of systems and environments, with topics ranging from economic evaluation to the physiological and genetic basis of feed efficiency. The book also looks at how a fuller understanding of feed efficiency is leading to new selective breeding efforts to develop more efficient cattle"--

Animal Agriculture
Increasing Domestic Milk Production in Developing Countries
Effect of Nitrate in Drinking Water on Reproductive and Productive Efficiency of Dairy Cattle
Breed and Production Reorganization of Cattle Breeding in the People's Republic of Bulgaria
Dairy-cattle Production
Issues in Animal Science and Research: 2011 Edition

This comprehensive book integrates new technology and concepts that have been developed in recent years to manage dairy farms in a profitable manner. The approach to the production of livestock and quality milk is multidisciplinary, involving nutrition, reproduction, clinical medicine, genetics, pathology, epidemiology, human resource management and economics. The book is structured by the production cycle of the dairy cow covering critical points in cow management. Written and edited by highly respected experts, this book provides a thoroughly modern and up-to-date resource for all those involved in the dairy industry.

This Book of Abstracts is the main publication of the 69th Annual Meeting of the European Federation of Animal Science (EAAP). It contains abstracts of the invited papers and contributed presentations of the sessions of EAAP's eleven Commissions: Animal Genetics, Animal Nutrition, Animal Management and Health, Animal Physiology, Cattle Production, Sheep and Goat Production, Pig Production, Horse Production and Livestock Farming Systems, Insects and Precision Livestock Farming.

The rearing of young stock until calving is often neglected on dairy farms, compared to the management of adult cattle. It is often not realized that young stock represent a critical investment in the future of the dairy farm and that sufficient attention should be paid to the rearing period

to safeguard that investment and to gain efficiency. Optimal weight gain and health during rearing are essential. The ultimate goals are that the heifer, after her first calving, enters into milk production to her fullest genetic potential and that she will have an optimal health and longevity in the herd. A population medicine approach is used to focus on healthy animals which bring profit rather than costs. Practical tools are provided to manage the complexity of young stock rearing. This approach provides the farmer with structure, planning, organisation and coaching. Risk identification and risk management, like in bio-security and in quality risk management, are key aspects of the population medicine approach. Practical examples are added to illustrate the points. Finally, a section on diseases in young stock is added as a quick reference guide. This book is a valuable reference for practising veterinarians, herd health practitioners, extension officers and other farm advisors, as well as dairy farmers.

Cumulated Index Medicus

Feed Efficiency in the Beef Industry

The Use of Phytogenic Feed Additives to Enhance Productivity and Health in Ruminants

Feed Supplementation Blocks

Breeding for robustness in cattle

Effect of Environment on Nutrient Requirements of Domestic Animals

Animal Agriculture: Sustainability, Challenges and Innovations discusses the land-based production of high-quality protein by livestock and poultry and how it plays an important role in improving human nutrition, growth and health. With exponential growth of the global population and marked rises in meat consumption per capita, demands for animal-source protein are expected to increase 72% between 2013 and 2050. This raises concerns about the sustainability and environmental impacts of animal agriculture. An attractive solution to meeting increasing needs for animal products and mitigating undesirable effects of agricultural practices is to enhance the efficiency of animal growth, reproduction, and lactation. Currently, there is no resource that offers specific knowledge of both animal science and technology, including biotechnology for the sustainability of animal agriculture for the expanding global demand of food in the face of diminishing resources. This book fills that gap, giving readers all the necessary information on important issues facing modern animal agriculture, namely its sustainability, challenges and innovative solutions. Integrates new knowledge in animal breeding, biotechnology, nutrition, reproduction and management Addresses the urgent issue of sustainability in modern animal agriculture Provides practical solutions on how to solve the current and future problems that face animal agriculture worldwide

Abstract: The objective of this dissertation was to address animal welfare as a continuous state as it pertains to dairy cattle and their environment. Chapter 1 reviews the concept of animal welfare and how to assess it scientifically, based on the three critical components of welfare proposed by animal welfare scientists: 1) the animal's health and biological functioning, 2) the affective state of the animal, and 3) the animal's ability to display innate behavior. Chapter 2 thoroughly reviews the literature pertaining to Chapters 3, 4, 5, and 6, beginning with the welfare of the dairy calf in utero, continuing through the pre-weaning phase for young heifer calves in relation to the benefits of social companionship, and concluding with the importance of the environment to the welfare of the mature dairy cow. Chapter 3 acknowledges that animal welfare science thus far has primarily considered the homeostatic challenges production animals may encounter after birth; however, it emphasizes that the prenatal period is also of critical importance to mammalian species, as this period of development may significantly influence and predetermine the capability of offspring to respond and adapt to their future environment. Chapter 3 specifically investigates the prenatal period in relation to maternal social stress experienced by overstocking the feeding area for multiparous cows during late gestation and how this may affect the postnatal growth of the offspring. The results of this first experiment indicate that the experimental conditions of overstocking imposed did not compromise the postnatal growth of the offspring through weaning. Chapter 4 continues to examine the effect of pair housing on the behavior and performance of Jersey heifer calves during the milk-feeding phase; the majority of studies have been conducted with Holstein calves, and it is currently unknown if Jersey calves behave the same as Holstein calves when pair-housed. Calves housed in pairs performed better than calves housed individually, especially during the weaning period. However, cross-sucking behavior was prevalent, as calves were fed milk via bucket. Future research should aim to reduce cross-sucking behavior within the Jersey breed through alternative feeding systems or environmental enrichment. Lastly, Chapters 5 and 6 examine the effect of overstocking the feed bunk during the dry period on dairy cow metabolic health, stress, productivity, and indicators of cow temperament. Although the overstocking conditions imposed did not compromise metabolic health or productivity, overstocking the feed bunk made cows less approachable by an approaching experimenter.

This volume considers every aspect of calf rearing, from physiological principles to practical systems. Topics include physiology of growth and digestion, nutrient requirements, health and welfare, and lifetime performance. More than half the authors are from outside the UK and all are acknowledged as international experts in their field. This book is aimed at technical advisers, researchers, extension workers, veterinary practitioners, progressive farmers, academics and students.

Housing to Optimize Comfort, Health and Productivity of Dairy Cattles, An Issue of Veterinary Clinics of North America: Food Animal Practice

Nutrient Requirements of Dairy Cattle

Bibliography of Agriculture

Effect of Dietary Fatty Acids and Other Nutritional Supplements on Biological Processes in Dairy Cows

Book Of Abstracts Of The 54th Annual Meeting Of The European Association For Animal Production

Raising Dairy Replacements

Greenhouse gas emissions by the livestock sector could be cut by as much as 30 percent through the wider use of existing best practices and technologies. FAO conducted a detailed analysis of GHG emissions at multiple stages of various livestock supply chains, including the production and transport of animal feed, on-farm energy use, emissions from animal digestion and manure decay, as well as the post-slaughter transport, refrigeration and packaging of animal products. This report represents the most comprehensive estimate made to-date of livestocks contribution to global warming as well as the sectors potential to help tackle the problem. This publication is aimed at professionals in food and agriculture as well as policy makers.

Blueprints for Tropical Dairy Farming provides insight into the logistics, infrastructure and management required for the development of small and large dairy farms in tropical developing countries. Farmers will learn how to improve the welfare, milk quality and productivity of their dairy herds. This book complements author John Moran's five previous books on the principles of tropical dairy farming. The manual covers a wide range of topics related to ensuring the sustainability of dairy production systems in tropical developing countries, such as South and East Asia, Africa and Central America. It also provides guidelines for the best management practices of large-scale, more intensive dairy systems. While smallholder farms are the major suppliers of milk in the tropics, many larger farms are becoming established throughout the tropics to satisfy the increasing demands for fresh milk. Blueprints for Tropical Dairy Farming will be a valuable resource for farmers and stockpeople who want to improve the productive performance of their dairy herds, farm advisers who can assist farmers to achieve this aim, educators who develop training programs for farmers or who train dairy advisers in the basics of dairy production technology, and other stakeholders in tropical dairy production, such as local agribusiness, policy makers and research scientists. National and international agencies will learn new insights into the required long-term logistics for regional dairy development, while potential investors will acquire knowledge into intensive tropical dairy farming.

The Effects of Varying Blood Compositions on the Productive and Reproductive Performance of Dairy Cows

Volume II: Animal Productivity

Sustainable Dairy Production

Dairy 2007: Reference of dairy cattle health and management practices in the United States, 2007

Rome, Italy, 31 August - 3 September 2003