

Phenotypic Characterization Of Indigenous Goat Types In

This document contains the report of the Technical Consultation on Flag State Performance. The Consultation was held in three sessions at FAO Headquarters, Rome, from 2-6 May 2011, 5-9 March 2012 and 4-8 February 2013. The Consultation was convened by the Director General of the Food and Agriculture Organization of the United Nations upon the recommendation of twenty-eighth session of the FAO Committee on Fisheries. The Technical Consultation finalised the Voluntary Guidelines for Flag State Performance. The Consultation was funded by the Governments of Canada, New Zealand, Norway and United States of America and by the European Commission

This Book of Abstracts is the main publication of the 71st 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.

Written by some of the world's leading goat meat scientists, and drawing from the most recent publications in the field, this book comprehensively covers the most important areas of goat meat production. Chapters discuss the role of genetics, breeding, reproduction, and nutrition in producing good quality, profitable goat meat. The mineral, amino acid and fatty acid composition of goat meat is also addressed, along with a discussion of its nutritive value, aimed at highlighting its health benefits over other red meats.

This book covers more than 40 indigenous goat breeds and several ecotypes around the globe and describes genotypic and phenotype traits related to species adaptation to harsh environments and climate change. It also addresses sustainable global farming of local goat breeds in different production systems and agro-ecosystems. Discussing three main global regions: Asia, Africa, and Europe, it particularly focuses on adverse environments such as mountain, semiarid and arid regions. The topic of this highly readable book includes the disciplines of animal physiology, breeding, sustainable agriculture, biodiversity and veterinary science, and as such it provides valuable information for academics, practitioners, and general readers with an interest in those fields.

A food system comprises the entire range of actors and interlinked activities related to food production, processing, distribution, marketing and trade, preparation, consumption, and disposal. When a food system operates without compromising the needs of future generations, it is considered to be a "Sustainable Food System." The present-day food systems in Sri Lanka are diverse, and the natural and physical environment, infrastructure, institutions, society and culture, and policies and regulations within which the food systems operate, as well as the technologies employed, have shaped their outcomes. Agricultural research is a key factor in terms of innovation and technological advances.

Innovation has been the main driver of food systems' transformation over the past few decades and will be critical to addressing the needs of a rapidly growing population in a context of climate change and scarcity of natural resources. In addition, agricultural research must help meet the rising demand for food at affordable prices. Comprising 17 chapters written by specialist(s) in their respective subject-areas, this Contributed Volume on "Agricultural Research for Sustainable Food Systems in Sri Lanka: A Historical Perspective" shares the scientific knowledge accumulated by the National Agricultural Research System of Sri Lanka, including universities, and offers recommendations on how to make food systems more sustainable in order to address the current needs of Sri Lankan society. It presents perspectives on four key thematic areas, namely: (i) Crop and animal production, management, and improvement, (ii) Agro-product processing technologies, (iii) Natural resource management, and (iv) Socio-economic development and agri-business management.

This book provides an overview of developments in the conservation and sustainable utilisation of Farm Animal Genetic Resources. It is based on presentations given at a conference on this subject co-organised by the British Society of Animal Science, the Department for Environment, Food and Rural Affairs, the Rare Breeds Survival Trust and the Sheep Trust.

Given the importance of livestock to the global economy, there is a substantial need for world-class reference material on the sustainable management of livestock in diverse eco-regions. With uncertain climates involving unpredictable extreme events (e.g., heat, drought, infectious disease), environmental stresses are becoming the most crucial factors affecting livestock productivity. By systematically and comprehensively addressing all aspects of environmental stresses and livestock productivity, this volume is a useful tool for understanding the various intricacies of stress physiology. With information and case studies collected and analyzed by professionals working in diversified ecological zones, this book explores the influence of the environment on livestock production across global biomes. The challenges the livestock industry faces in maintaining the delicate balance between animal welfare and production are also highlighted.

Genetics and genomics in poultry have been the most rapidly advancing subjects since the completion of the chicken genome sequence in 2004 and have been extensively used to understand the genetic determinants of complex traits. This book intends to provide readers with a comprehensive overview of the current progress in the application of genetic and genomic science in the poultry field. The contents cover genetic variation detection, selection methods for breeding, transgenesis and genome editing, genetic basis of disease resistance, control of gene expression and regulation, reproduction and meat quality, etc. The book should prove useful to researchers and students working in related fields. This book presents a comprehensive overview of DNA barcoding and molecular phylogeny, along with a number of case studies. It discusses a number of areas where DNA barcoding can be applied, such as clinical microbiology, especially in relation to infection management; DNA database management; and plant-animal interactions, and also presents valuable information on the DNA barcoding and molecular phylogeny of microbes, algae, elasmobranchs, fishes, birds

and ruminant mammals. Furthermore it features unique case studies describing DNA barcoding of reptiles dwelling in Saudi Arabian deserts, genetic variation studies in both wild and hatchery populations of *Anabas testudineus*, DNA barcoding and molecular phylogeny of Ichthyoplankton and juvenile fishes of Kuantan River in Malaysia, and barcoding and molecular phylogenetic analysis of indigenous bacteria from fishes dwelling in a tropical tidal river. Moreover, since prompt identification and management of invasive species is vital to prevent economic and ecological loss, the book includes a chapter on DNA barcoding of invasive species. Given its scope, this book will appeal not only to researchers, teachers and students around the globe, but also to general readers.

This title provides the latest, detailed reference material for all of the procedures in SAS/STAT software, and syntax, usage, and examples.

This open access book describes the serious threat of invasive species to native ecosystems. Invasive species have caused and will continue to cause enormous ecological and economic damage with ever increasing world trade. This multi-disciplinary book, written by over 100 national experts, presents the latest research on a wide range of natural science and social science fields that explore the ecology, impacts, and practical tools for management of invasive species. It covers species of all taxonomic groups from insects and pathogens, to plants, vertebrates, and aquatic organisms that impact a diversity of habitats in forests, rangelands and grasslands of the United States. It is well-illustrated, provides summaries of the most important invasive species and issues impacting all regions of the country, and includes a comprehensive primary reference list for each topic. This scientific synthesis provides the cultural, economic, scientific and social context for addressing environmental challenges posed by invasive species and will be a valuable resource for scholars, policy makers, natural resource managers and practitioners.

Research and development in animal husbandry and products manufacturing are ongoing, and the results should be summarized from time to time and made available to the reader in order to increase their knowledge. The present publication seeks to present the results related to the goat species. The first part of the volume contains the cultural history of the goat as well as chapters on the breeds kept and bred in Spain, USA, and Nepal. The second part covers the chapters dealing with Cashmere and Pashmina wool. In the third part of the volume, you can read about the differences between the different goat cheeses. The first chapter of the fourth part compares the drugs that can be used in the treatment of goat diseases, while the second chapter describes the parasites of the gastrointestinal tract (GIT).

Microsatellite or so-called simple sequence repeat (SSR) markers have been one of the most reliable molecular markers derived from the DNA molecule, which were widely and successfully used for more than 25 years in the genetic studies of environmental, agricultural, and biomedical sciences. The objective of this Microsatellite Markers book is to rehighlight and provide some updates on previous and recent utilization of microsatellite markers for various applications in agriculture and medicine, which void emerging opinion on "full death" of microsatellites as useful genetic markers. Chapters presented here demonstrate the future benefit of SSRs in many genetic studies as well as disease diagnosis and prognosis.

The research presented in this book demonstrates how an integrated 'systems' approach to farming in the watershed context increases the effectiveness of a production system and improves people's livelihoods. It takes an integrated approach, using one watershed in Ethiopia as a 'laboratory' or model case study to focus on the interaction and interdependence between land, water, crops, soil, water harvesting, supplemental irrigation, forestry, socio-economic aspects, livestock and farm tools. A range of linked studies was conducted with active participation of the farming community and other relevant stakeholders, such as the local offices of agriculture and extension services. The starting point for the work was the premise that previous efforts to solve farming system constraints using a piecemeal approach or discipline-specific focus have not been successful. Thus, addressing agricultural and environmental constraints through a holistic approach enables the generation of comprehensive technologies to sustainably improve the natural resource base and livelihoods of communities. The authors discuss trade-offs and resource allocation, demonstrating how the environment can be protected while also improving productivity. A unique feature is the methodology developed for the selection of suitable fields and farmers to implement new approaches or improved technologies, to achieve production increases while reducing degradation of sensitive agro-ecosystems. It is also shown how the watershed scale is a valuable basis for assessing the protection of fragile lands.

Initially published by arrangement with INADES, Institut africain pour le développement économique et social, Abidjan, Côte d'Ivoire, the Better Farming Series booklets are designed as handbooks for intermediate-level agricultural education and training courses. They may be purchased as a set (45 booklets) or singly.

"The Global Plan of Action for Animal Genetic Resources, adopted in 2007, is the first internationally agreed framework for the management of biodiversity in the livestock sector. It calls for the development of technical guidelines to support countries in their implementation efforts. Guidelines on the Preparation of national strategies and action plans for animal genetic resources were published by FAO in 2009 and are being complemented by a series of guideline publications addressing specific technical subjects. These guidelines on Phenotypic characterization of animal genetic resources address Strategic Priority Area 1 of the Global Plan of Action --- "Characterization, inventory and monitoring of trends and associated risks". They complement, in particular, the guidelines on molecular genetic characterization and on surveying and monitoring of animal genetic resources. They have been endorsed by the Commission on Genetic Resources for Food and Agriculture. The guidelines offer advice on how to conduct a well-targeted and cost-effective phenotypic characterization study that contributes to the improvement of animal genetic resources management in the context of country-level implementation of the Global Plan of Action. An overview of the concepts and approaches that underpin phenotypic characterization is followed by practical guidance on planning and implementing field work, data management and data analysis. The annexes include generic data collection formats for phenotypic characterization of major livestock species, as well as a framework for recording data on breeds' production environments."--Publisher's description

This Book of Abstracts is the main publication of the 62nd Annual Meeting of the European Association for Animal Production (EAAP) held in Stavanger, Norway from 29 August - 2 September 2011. It contains abstracts of the invited papers and contributed presentations. The meeting addressed subjects relating to science and innovation. Also, important problems were discussed during the sessions of EAAP's nine 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. In addition joint sessions on topics interesting several disciplines and species were included in the programme.

These guidelines address Strategic Priority Area 1 of the Global Plan of Action - Characterization, Inventory and Monitoring of Trends and Associated Risks. A short overview of progress in molecular characterization of animal genetic resources over the la

This dictionary covers cattle, sheep, pigs, goats, horses, donkeys and buffalo. It includes all names which have been applied to

interbreeding groups of these species whether they are called breeds, sub-breeds, types, varieties, strains or lines. The region or country of origin of each group is given and this is followed by a very brief description of the breed in terms of products, color, and major morphological features. There is a note on the history of the breed and the dates of formation of breed societies and herdbooks. Synonyms for its name are listed as well as the present conservation status. This new edition includes approximately 9,000 entries, of which 5,000 are main entries and 4,000 are cross references. This represents an increase on the third edition of 18% for main entries and 13% for cross references. The highest proportion of new breed entries are in the horse and pig chapters. Furthermore some 2,300 entries (30%) have been amended. These include 400 major changes, such as new name, extinction, or the extension of a bare name to a complete entry. They also include 1,900 entries with minor changes, for example new breed society, new synonyms, additions to distribution or description, changes in spelling or of conservation status. China features strongly in all additions and amendments. In addition to these changes references to USSR, Yugoslavia and Czechoslovakia have been corrected in accordance with the current country names. Overall the book continues to represent the standard reference work for all concerned with domestic livestock, particularly those involved in animal breeding and genetics.

Phenotypic Characterization of Animal Genetic Resources Food & Agriculture Org

The aim of this study was to characterize indigenous Tswana goats in four agro-ecological regions of Botswana i.e. Southern, Central, Northwest and Ghanzi. The following specific objectives were set; description of existing goat production systems in Botswana, phenotypic and genetic characterisation of Tswana goats and investigation of population structure of indigenous and commercial goats using the Goat50K SNP panel. A survey was conducted in four agro-ecological regions to collect data on Tswana goats in smallholder farming systems and phenotypic measurements were recorded for 123 goats that included body weight (BW), body length (BL), heart girth (HG), height at withers (HW) and tail length (TL). Qualitative traits such as coat colour, horns and beard were also recorded. About 80% of the farmers kept goats for financial purposes. Goats in the Northwest region had significantly ($P < 0.05$) higher HG values in all age groups compared to other regions. Goats in the Central (71.83 ± 1.18) and Northwest (69.17 ± 2.04) regions had significantly longer BL compared to the ones in the Southern (64.25 ± 2.50) region at 48 months. For genetic characterisation, hair samples from 48 phenotyped animals of Central region were collected and genotyped with Illumina Goat50K SNP chip. Genomic diversity was high (0.4230.03) with low inbreeding (FIS) (0.009 ± 0.05). Additional genotypes which included Boer ($n=24$), Kalahari Red ($n = 24$) and Swazi ($n=48$) were included in the analysis to get a broader regional perspective. Genetic diversity, measured as expected heterozygosity was 0.390 ± 0.01 , 0.398 ± 0.01 and 0.387 ± 0.02 for Boer, Kalahari Red and Swazi goats, respectively. Inbreeding coefficient ranged from 0.014 ± 0.06 in Boer, 0.012 ± 0.07 in Kalahari Red to 0.011 ± 0.06 in Swazi goats. The populations clustered according to geographical origin. Linkage disequilibrium (LD) for shorter intervals (0-10 kb) ranged from 0.44 to 0.56. Effective population size at 13th generation was approximately 87 for Boer, 93 for Kalahari Red, 180 for Swazi and 266 for Tswana goats. The results indicate potential improvement of Tswana goat through within breed selection and structured crossbreeding that will assist in food security and sustainable utilization.

"The guidelines on the Development of Institutional Frameworks for the Management of Animal genetic resources have been endorsed by the Commission on Genetic Resources for Food and Agriculture. They are part of a series of guidelines prepared to support countries in the implementation of the Global Plan of Action. They complement, in particular, the guidelines on the Preparation of national strategies and action plans for animal genetic resources. A sound institutional framework provides a basis for effective management of animal genetic resources both nationally and internationally. The guidelines present an overview of the components of the global network for the management of animal genetic resources and advice on how they can be strengthened at national and regional levels. Detailed guidance is provided on the role of National Coordinators for the Management of Animal Genetic Resources and the development and operation of National Focal Points for the Management of Animal Genetic Resources supported by National Advisory Committees, working groups and country stakeholder networks. Progress towards the establishment of a network of Regional Focal Points for Animal Genetic Resources is reviewed and advice is offered in the form of a series of steps that can be followed by stakeholders wishing to establish and sustain focal points in their regions. The guidelines draw on lessons learned from many years of experience in the implementation of programmes and focal points for the management of animal genetic resources in many parts of the world, and include personal contributions from individuals who have been actively involved in this work."--Publisher description.

Master's Thesis from the year 2017 in the subject Agrarian Studies, language: English, abstract: The study was conducted in Jimma zone of three Agro-ecology in six-selected farmer's kebele starting from March to June 2017 with the aim to phenotypic ally characterize selected indigenous chicken, identify poultry management and breeding practices in three agro-ecologies of Jimma Zone. A survey was carried out on 180 randomly selected respondent as well as 555 heads of native chickens, (445 females and 105 males) for qualitative and quantitative trait measurements. In Ethiopia, the agricultural sector is a corner stone of the economic and social life of the people. The livestock sector in Ethiopia contributes 12% and 33% of the total and agricultural Gross Domestic Product (GDP), respectively, and provides livelihood for 65% of the population. The sector also accounts for 12-15% of the total export earnings. These livestock genetic resources are important or vital to development of the economic, social and environmental of the one country. The diverse agro-ecology and agronomic practice prevailing in the country together with the huge population of livestock in general and poultry in particular, could be a promising attribute to boost up the sector and increase its contribution to the total agricultural output as well as to improve the living standards of the poor livestock keepers. Poultry production, as one segment of livestock production, has a peculiar privilege to contribute to the sector. This is mainly due to their small size and fast reproduction compared to most other livestock and its well fitness with the concept of small-scale agricultural development. Moreover, it goes eco-friendly and does not compete for scarce land rest. The majority of indigenous chickens in the tropics are maintained under village chicken production systems. These production systems are typically characterized by low input and low output systems, mainly in terms of egg and meat p

The first edition of this book, published in 1991, was based on a conference. However, this second edition consists of specially commissioned chapters to provide a more comprehensive and balanced review of the subject. Two additional editors, Stephen Bishop from the world-famous Roslin Institute, and Frank Nicholas, author of a widely respected textbook on veterinary genetics, have been brought in, as have several new contributors. As the subject of breeding for disease resistance rather than controlling diseases using expensive chemicals continues to be topical, this book will attract wide interest. The book gives full coverage of important areas of development, by those leading the field.

This book explores the current trends and challenges of sustainable goat meat and milk production in different global contexts, providing

valuable insights into this industry in adverse environments like mountain, semiarid and arid regions. It also includes contributions from international experts discussing goat reproduction, genetic diversity and improvement, as well topics such as animal health, welfare, socioeconomic aspects, and many other issues regarding the environmentally friendly and economically viable exploitation of goats. This is a highly informative book providing scientific insight for readers with an interest in sustainable agriculture and socio-economic aspects, as well as goat breed conservation, genetic diversity, and veterinary care. These subjects are complemented in a second volume providing a detailed description of more than 40 indigenous goat breeds and several ecotypes found in Asia, Africa, Europe, and America.

Goat science covers quite a wide range and varieties of topics, from genetics and breeding, via nutrition, production systems, reproduction, milk and meat production, animal health and parasitism, etc., up to the effects of goat products on human health. In this book, several parts of them are presented within 18 different chapters. Molecular genetics and genetic improvement of goats are the new approaches of goat development. Several factors affect the passage rate of digesta in goats, but for diet properties, goats are similar to other ruminants. Iodine deficiency in goats could be dangerous. Assisted reproduction techniques have similar importance in goats like in other ruminants. Milk and meat production traits of goats are almost equally important and have significant positive impacts on human health. Many factors affect the health of goats, heat stress being of increasing importance. Production systems could modify all of the abovementioned characteristics of goats.

A wonderful resource for goat breeders, Raising Meat Goats for Profit includes Information about the Meat Breeds, How to get started with meat production, Easy to use feed ration tables, Real advice for new breeders, Kidding and Raising Kids, How to sell your goats, Up-to-date informations about health and diseases, Recipe book, 250 pages of user friendly information!

This book covers Goat production in the Tropics.

This book presents an introductory overview of Actinobacteria with three main divisions: taxonomic principles, bioprospecting, and agriculture and industrial utility, which covers isolation, cultivation methods, and identification of Actinobacteria and production and biotechnological potential of antibacterial compounds and enzymes from Actinobacteria. Moreover, this book also provides a comprehensive account on plant growth-promoting (PGP) and pollutant degrading ability of Actinobacteria and the exploitation of Actinobacteria as ecofriendly nanofactories for biosynthesis of nanoparticles, such as gold and silver. This book will be beneficial for the graduate students, teachers, researchers, biotechnologists, and other professionals, who are interested to fortify and expand their knowledge about Actinobacteria in the field of Microbiology, Biotechnology, Biomedical Science, Plant Science, Agriculture, Plant pathology, Environmental Science, etc.

Draws together information from a number of sources to describe the state of research and development on worm control in Asia and the Pacific.

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