

PREFACE

Product quality and a sustainable food chain of ruminant products are largely determined by animal nutrition, in which forage is the major feed source. Forages and grasslands play a unique role in agriculture because they contribute through animals to our food supply and to the abatement of environmental problems. Interest in grassland management and grass utilization for dairy production in temperate and subtropical regions has recently led to considerable research efforts. In the past this research often emphasized on plant and animal aspects separately. However, the interrelationship between pasture and the grazing ruminant is a dynamic, two-way process. Many people are not aware of these complex relations, and scientists often focus on either soil–plant interactions, plant production, animal nutrition, animal production or product quality issues separately.

A recent research project at Wageningen University, aimed at the plant–animal interface, used an integrated approach by the Plant Sciences Group and the Animal Sciences Group. With the completion of this project, opportunities to optimize ruminant performance from grazed pasture were highlighted in a symposium in April 2005, jointly organized by the Graduate Schools Production Ecology and Resource Conservation (PE&RC) and the Wageningen Institute of Animal Sciences (WIAS), in collaboration with Frontis – Wageningen International Nucleus for Strategic Expertise. Research gaps and discussion points were identified by an international forum in which 49 researchers participated.

In the present volume, various aspects are put in perspective, and multidisciplinary work is presented. This book contains the contributions of active researchers and leading experts in the field of grassland management and grass utilization, enhancing progress in this complex field. Chapters are arranged in an order that allows progressive development within the food chain, moving from the big picture to basic principles of grassland management and effects on herbage quality, intake and nutrient flows.

ACKNOWLEDGEMENTS

We acknowledge financial support of both Graduate Schools for the seminar, and Frontis for providing the opportunity to publish this book as a milestone in the current knowledge in this research area.

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Wageningen, July 2006