

Fahey, G.C., Jr., Collins, M., Mertens, D.R., Moser L.E. (ed.): **Forage Quality Evaluation, and Utilization.** - American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Madison 1994. 988 pp. US \$ 44.00.

The publication is based on the National Conference on Forage Quality, Evaluation, and Utilization held at the University of Nebraska in Lincoln on 13 - 15 April 1994. It contains six main sections. The first one - "Overview of Forage Science" reviews twenty five years of development of forage science. Then it describes interaction of forage quality and animal production and plant and environmental factors affecting forage quality. The second section is devoted to identification and quantitative measurement of forage quality components, especially proteins, carbohydrates, minerals and metabolites of fungi. The section is closed by a review of modern methods of analysis. The third section analyses forage intake as a critical element of forage quality and next one the role of digestion and metabolism in determining forage quality. It describes the processes of digestion and factors influencing digestion of forage-based diets by ruminants, methods of estimation of digestibility of forages and their passage kinetics. The fifth section is devoted to modeling of forage quality changes and forage intake and digestion by ruminants. One chapter analyses plant-animal interactions during grazing and one chapter describes changes in forage quality during harvest and storage. Harvest and storage losses are mentioned there too. The last section describes the possibilities of improving forage quality by the way of plant breeding and by physical, chemical, microbial and enzymatic treatments. Nearly half of the chapters are co-authored by researchers from different institutions. As a result, different perspectives on a particular subject can be recognized within the same chapter. The authors also attempt to define where more information is needed and where new research efforts need to be focused. The book as a very complete review of developments in forage science of the last years will be useful for the researchers and the students who are interested in forage production, conservation and animal alimentation. New directions for future research and development are explored too.

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