

**“GRASSLAND CULTURE FOR ALL”
- BOOK REVIEW -**

PhD Teodor Marușca is a passionate Romanian researcher in the field of grassland science and much more than this. He surprises us almost yearly with innovative and new approaches on grassland science, both theoretical and practical approach. In the year 2016, he has published an interesting book entitled “Praticultura pe înțelesul tuturor” (“Grassland culture for all”), a selection of scientific papers already published, which concerned aspects of grassland culture that are, as we mentioned, theoretical and also involving the methods of management of grasslands in our country, grassland culture techniques.

The book is structured into 8 well defined chapters, covering aspects of grassland classification in close connection with ecological factors and, equally, aspects concerning practices of management of these important grassy areas from our country. Thus, Chapter 1 presents the areas and vegetation levels specific for Romania, distributed as a function of ecological factors. Chapter 2, a well-researched but also a very short chapter, covers the methods of studying the vegetation cover and the ways in which the species relate to the ecologic and agronomic factors.

The unique requirements of the forage species and of the

categories of grasslands to the ecologic factors, on vegetation area and level, are found in Chapter 3 where the author exemplifies also the formulas for calculating the station and economic parameters of grasslands. Interesting are also the details presented in Chapter 4 - concerning the methods of using grasslands by grazing, mowing or mixed utilization. The author presents also the link between animal load and the development of the grass cover; a heavy load of animals leading to the degradation of grasses, while a low load implies the reduction in the number of grassland species.

Interested in grassland management methods, the author analyzes, in Chapter 5, aspects regarding land improvement operations and pastoral infrastructure. Because most of the grasslands in our country are on inclines, soil erosion caused by water runoff creates a lot of problems. Recommendations are made for measures of preventing soil erosion by means of grazing management and by identifying the optimal animal loads, but also for measures of soil restoration with special operations done for the affected lands.

Special attention is given to woody plants which must be controlled under strict guidelines,

depending on the slope of the land and the species that exist there. Buildings made for animals, but also for people, must be constructed with local means and without aggression towards the environment.

Starting with the 6th Chapter, the author analyzes the means by which the grass cover of a grassland and the grassland itself can be improved as a source of feed and also as a component of the landscape. Specifically, the author analyzes, with great expertise, the measures that have to be taken in order for natural grasslands to have a firm grass cover with valuable species and a with a sustainable animal load. The author discussed a series of aspects concerning specific measures of grassland management such as over seeding, weed management, mineral and organic fertilization, sheepfold manure fertilization (with sheep and bovines), to maintain high grass cover productivity and a valuable flora structure. Another expert analysis reveals the case of grass cover that requires drastic operations. Seed mixes and cultivars are also recommended, the author insisting upon the need to use species of *Fabaceae* and *Poaceae* that are of Romanian origin which are better suited for ecological conditions in our country.

Chapter 7 is dedicated to the methods of grasslands utilization; namely, by grazing or by mowing. A generous space is allocated for

grazing, presenting a series of relevant aspects for organizing this method of grassland use. A central point of the analysis of grazing is the pastoral value of the grassland – and indicator which must be considered for any grassland used by grazing. The pastoral value of a grassland must be correlated with the grazing system, with the start and the end of the grazing season, with providing water resources – aspects which have a decided impact on the welfare of the animals and on maintaining a well-structured and balanced grass cover.

Using the natural grasslands by mowing raises many issues, delivering a quality hay being not an easy task to manage. The author highlighted that the following of a proper harvest times and thoughtfully choosing the drying period and methods based on the geographical area, are basic elements that contribute to the producing of high quality hay.

The passionate researcher Teodor Marușca, the man who dedicated his entire life to the study of Romanian grasslands, pleasantly surprises us with this new book which covers a synthesizes of Romanian grassland research, along with ideas from his own expertise and research at the Institute for Grassland Research and Development from Brașov. This book is equally useful for passionate researchers, farmers who use grasslands by grazing or mowing, students from Agriculture

specialization and anyone else who
is – in one way or another – tied to

the science of grasses; a book which
we wholeheartedly endorse.

**PhD. Prof. Ioan Rotar,
President of The Romanian Society for Grassland**