

Grassland Techniques and Management



L.N. Singh
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**GRASSLAND TECHNIQUES
AND
MANAGEMENT**

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PREFACE

One fourth of world's land surface is under grassland of one kind or the other. Grassland community develop where there is less rainfall to support forest. Annual precipitation where grasslands develop usually varies from 250 mm to 1000 mm. Environment, plants and animals are the important components of grasslands. These are closely interlinked and affect grassland productivity. Livestock production particularly in tropical region comes from natural rather than planted pastures.

Due to high human population pressure, availability of arable land per head is low particularly in developing countries. Because of this there is increasing pressure for cultivation of food crops. Thus, natural grasslands, meadows, forests, waste and barren land and crop residue are the primary source of fodder. Lack of resources as well as knowledge of grassland improvement and management practices is resulting in improper and under utilization of these resources.

Attempt has been made in this book to present methodology to be adopted for the study of botanical composition, ground cover, range condition, forage variety evaluation, herbage yield, livestock production etc. Techniques of seed inoculation, scarification and pelleting, soil test and carrying capacity have also been described. Improvement and proper management of grassland is necessary for getting optimum livestock production. Efforts have been made to present basic principles involved in grassland management, and to give an outline of different improved practices including reseeding of grasses, introduction of legumes, weed control, fertilizer application, grazing management and soil and water conservation. Information about fodder trees and browse which provide green foliage during lean period has also been presented. A chapter

has been devoted on principles and method of establishment of artificial grassland which is possible only on good land and if adequate resources are available.

Growth of forage species is mostly confined to a few months in a year, whereas, fodder is required throughout the year. Write up has been included on techniques of hay and silage preparation to enable conservation of surplus fodder for use during lean period. Animal production depends not only on fodder supply but on its quality also. Important aspects of herbage quality and anti-quality constituents have also been documented. It is hoped that information presented in this book shall be helpful in improving basic principles, potential and approach required to be adopted for the improvement and management of grasslands.

At present, grassland resources in our country are not being exploited to their full potential due to lack of knowledge of grassland husbandry, inadequate attention of policy makers and government institution and lack of resources of farmers. There is need of greater attention for optimum utilization of grassland resources to improve livestock productivity in order to uplift economic condition of farmers particularly in developing countries where pressure on arable land is high.

We wish to express our thanks to Dr. (Mrs) Rita Singh for her invaluable assistance in the preparation of book. We also acknowledge our debt to our family members particularly Ms. Savitri Singh whose support has been very necessary and always helpful.

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