The Grass Cover of India by DABADGHAO, P. M. AND K. A. SHANKARNARAYAN. Indian Council of Agricultural Research, New Delhi. pp. xii+713, 1973. Price: Rs. 35.00.

In recent years the problems of grassland improvement and management has received much attention in all parts of the world. In India, a reconnaisance survey of grasslands was conducted under a comprehensive research scheme during the period 1954-1962. This publication presents the report of this grassland survey carried out in different parts of the country.

The book is divided into two parts; their titles giving a general idea of the contents: Part I—Types of Grass Covers in relation to Environment and Management (Environment, Natural Vegetation and Grass Cover, Techniques Adopted in Grassland Survey of India, Types of Grass Covers, Grass Communities of the States, Ecological Characteristics of Important Species of Grasses, Management and Conservation of the Grass Cover, etc.); Part II—Reports and Analysis of 507 Sites. The main factors which are considered in grassland ecology relate to topography and geomorphology, climate, soils and biotic factors associated with the activities of man and animals, namely deforestation, shifting cultivation, grazing, fire, etc. The authors recognize five major types of grass covers, namely *Sehima-Dichanthium* Type, *Dichanthium-Cenchrus-Lasiurus* Type, *Phragmites-Saccharum-Imperata* Type, *Themeda-Arundinella* Type and Temperate Alpine Type. These are described in detail, together with notes on floristic composition, distribution, habitat factors and successional status of the principal species of grasses. The last chapter highlights the need for research on grassland ecology, management and improvement. An exhaustive bibliography of 202 references concludes the first part of the book.

The second part deals with the grassland survey report and analysis of 507 survey sites studied in various States, namely Andhra Pradesh (Sites 1-28), Assam (29-40), Bihar (41-54), Delhi (55-60), Gujarat (61-100), Himachal Pradesh (101-123), Jammu and Kashmir (124-146), Kerala (147-154), Madhya Pradesh (155-190), Madras (191-236), Maharashtra (237-284), Manipur (285-294), Mysore (295-304), Orissa (305-321), Punjab (322-342), Rajasthan (343-391), Tripura (392-404), Uttar Pradesh (405-458), West Bengal (459-483) and Andaman Islands (484-507). These reports provide adequate information on the location of the site, soil geomorphological description, plant litter, total plant cover or density, forage production, floristic composition, grass frequency percentage, percentage cover, forest types and sub-types, etc. There is no reference to authentic herbarium material on which the reports of floristic composition of the grass cover are based. There are separate indices of plant names and geographical names for parts I and II of the book.

This publication is a useful companion volume to Whyte's "Grassland and Fodder Resources of India" published by ICAR. It should serve as a valuable guide for ecologists, agronomists and applied scientists interested in agro-ecological problems, soil conservation, grassland husbandry, and in development of livestock industry. The book is, therefore, recommended as an important reference work on the grassland resources of the country.

J. K. MAHESHWARI
Botanical Survey of India, Howrah