Record Nr. UNINA9910253950803321 Autore Ngangyo Heya Maginot **Titolo** Biology, Productivity and Bioenergy of Timber-Yielding Plants [[electronic resource]]: An Experimental Technology / / by Maginot Ngangyo Heya, Ratikanta Maiti, Rahim Foroughbakhch Pournavab, Artemio Carrillo-Parra Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 **ISBN** 3-319-61798-2 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (VIII, 144 p. 70 illus., 65 illus. in color.) SpringerBriefs in Plant Science, , 2192-1229 Collana Disciplina 582.16 Soggetti Plant physiology Forestry management Forest products Plant ecology Plant breeding **Trees** Plant Physiology Forestry Management Wood Science & Technology Plant Ecology Plant Breeding/Biotechnology Tree Biology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Sommario/riassunto Face to the current global energy crisis, there is an urgent necessity of searching for alternatives to fossil fuels, and this book shows how timber is a promising resource for sustainable energy production.

Northeast Mexico represents an important forest resource to satisfy the needs of the population in these areas. In order to harness these forest resources, technology for exploring these valuable resources must be developed. These technologies (with special reference to biology and

wood technologies) are available in scattered form in a few books but there is no central, comprehensive source for practical forest scientists for adopting efficient forest management, practice, and exploration. This book deals with the characterization of the vegetation, morphology, phenological development, biomass production (leaf, litter, wood), and bioenergy of some timber-yielding species of Northeast Mexico, which will serve as a guide to study timber-yielding plants in the native vegetation of Tamaulipan thornscrub and experimental plantations. This includes morphology, vegetation cover, biomass production in terms of volume leaf biomass, litter, and volume of fire wood and timber. Special emphasis is given to the estimation of bioenergy products and chemical composition (Ph, extractable lignin, and inorganic elements). Large variations exist in vegetation cover, morphology, phenological development, biomass production of leaf and litter, volume of wood and various variable of bioenergy products among the selected species. The maximum production was found in summer and the volume of the harvestable timber was obtained in experimental plantations. This book, therefore, will serve as a practical handbook to characterize timber-yielding plants, which will help to efficiently manage forestry resources.