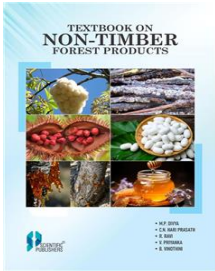


## Text Book On Non-Timber Forest Products

[M.P. Divya](#) , [C.N. Hari Prasath](#) , [R Ravi](#) , [V.Priyanka](#) & [B.Vinothini](#)



ISBN	: 9789363461444	Book Format	: Book
Language	: English	Binding	: Paper Back
Imprint	: Scientific Publishers	Edition	: 1
Pages	: 232	© Year	: 2024
Weight	: 400 Gms	Trim Size	: 7"X9.5"X1.0
Book Type	: Text Book <input type="text"/>		

**Print Book** : ₹475.00

### Blurb

This book has been designed with 15 chapters which covers the scope, importance and status of NTFPs, important Non-Timber Forest Products viz., fibre and flosses, gums and resins, tannins and dyes, essential oils, TBOs, lac and shellac, medicinal plants and drugs, spices and edible fruits, bamboos, grasses and canes, bidi leaves, dona making, animal products and mineral products. In a holistic perspective, the information furnished in this book will definitely act as ready reckoner for the faculty who teaches a course on Non-Timber Forest Products and also for the students aspiring for Scientists and Indian Forest Service.

### Table of Contents

<i>About the Book</i> .....	iii
<i>About Authors</i> .....	v
<i>Preface</i> .....	vii
<i>Abbreviations</i> .....	ix
<i>List of Figures</i> .....	xi
<i>List of Tables</i> .....	xiii
1. INTRODUCTION – M.P. Divya and C.N. Hari Prasath.....	1
Classification of Non-Timber Forest Products.....	1
Scope and importance of NTFP.....	2
Status of NTFP.....	2
Livelihood significance of NTFP.....	4
Challenges and Emerging Issues.....	5
Role of Tribal Co-Operative Societies in NTFP .....	6
Main functions of LAMPS .....	8
Suggested Readings.....	9
2. FIBRES AND FLOSSES – M.P. Divya and R. Ravi.....	11
Fibres .....	11
Classification of Fibres.....	11
Fibre Extraction Methods.....	18
Retting process of fibre extraction.....	19
Flosses.....	22
Suggested Readings.....	24
3. GUMS AND RESINS – M.P. Divya and C.N. Hari Prasath.....	25
Gums .....	25
Kinds of Gums.....	26
Gum Yielding Species.....	26
Miscellaneous gum yielding species.....	30
Gum Tapping Methods.....	30
Applications/ Uses of tree gum.....	34
Resins .....	34
Classification of Resins.....	35
Resin yielding species .....	36
Harvesting and Extraction of Resin.....	40
Tapping methods in India.....	41

Tapping methods in Pine trees.....	41
Processing and Value addition of Resins.....	44
Storage of Rosin.....	45
Properties of Rosin.....	45
Applications of Rosin.....	46
Turpentine.....	46
Suggested Readings.....	47
4. TANNINS – M.P. Divya and C.N. Hari Prasath.....	49
Structure of Tannin.....	49
Occurrence.....	50
Tannins in Plant Tissues.....	50
Properties of Tannin.....	51
Classification of Tannin.....	51
Tannin Identification Test.....	58
Tannin Extraction Methods.....	59
Opportunity and Challenge of tannin extraction.....	65
Applications of Tannin.....	65
Suggested Readings.....	66
5. NATURAL DYES – V. Priyanka and B. Vinothini.....	67
Status of Natural Dyes in India .....	68
Classification of Natural Dyes .....	68
Extraction Techniques .....	73
Techniques for Standardization of Natural Dyes.....	76
Standardization of Dye Extraction.....	76
Applications of natural dyes .....	77
Advantages of natural dyes.....	78
Drawbacks of natural dyes.....	78
Suggested Readings.....	81
6. ESSENTIAL OILS – M.P. Divya and P. Herralatha.....	83
Extraction Methods.....	86
Modern Methods of Extraction .....	96
Uses of Essential Oils.....	97
Suggested Readings.....	98
7. TREE BORNE OIL SEEDS – M.P. Divya and S. Krishnamoorthi.....	99
Salient Features of the National Biofuel Policy.....	100
Processing of TBOs.....	101
Extraction Methods.....	103
Biofuels.....	106
Biofuel Extraction Method.....	106
Suggested Readings.....	108
8. LAC AND SHELLAC – V. Priyanka and B. Vinothini.....	109
Biology of Insect in Lac Cultivation.....	109
Distribution of Lac Insects.....	110
Status of Raw Lac Production .....	110
Host Plants .....	110
Strains of Lac Insect .....	111
Lac Cultivation .....	112
Propagation of Lac Insects .....	114
Composition of Lac .....	115

Lac Processing .....	116
Lac Products and its Uses.....	118
Suggested Readings .....	122
9. MEDICINAL PLANTS AND DRUGS – M.P. Divya and P.	
Hemalatha.....	123
Classification of Plant Drugs.....	124
Extraction of Plant Drugs.....	130
Methods of Extraction .....	133
Fractionation and Purification Methods.....	136
Types of value addition .....	137
Value added products from Medicinal Plants.....	138
Suggested Readings.....	140
10. SPICES AND EDIBLE FRUITS – M.P. Divya and R. Ravi.....	
Spices .....	141
Major Spices.....	141
Value added products .....	143
Value added products from major spices.....	145
Edible Fruits .....	146
Suggested Readings.....	156
11. BAMBOOS, CANES AND GRASSES – C.N. Hari Prasath and M.P. Divya	
Divya.....	157
Bamboos .....	157
Important Bamboo Species.....	159
Grasses .....	167
Suitable Grasses for Paper Making.....	169
Other suitable grasses.....	169
Canes .....	174
Important Cane Species.....	176
Propagation of Canes .....	178
Uses of Canes.....	181
Suggested Readings.....	182
12. BIDI LEAVES-C.N. Hariprasath and M.P. Divya.....	
Distribution of bidi leaves.....	183
Collection of leaves.....	185
Drying and curing of leaves .....	185
Packaging and storage .....	186
Marketing of bidi Leaves.....	186
Trade of tendu leaves in India.....	186
Quality Classes .....	187
Measures for increasing tendu leaf production .....	187
Disposal of tendu leaves .....	189
Utilization of leaves .....	190
Other bidi leaves .....	190
Suggested Readings.....	191
13. DONA MAKING- V. Priyanka and B. Vinothini.....	
Suitable tree species for dona making.....	194
Dona Manufacturing Process .....	197
Suggested Readings.....	199

14. ANIMAL PRODUCTS-M.P. Divya and S. Krishnamoorthi.....	201
1. Bee Keeping .....	201
Important bee species .....	202
Bee Products .....	203
2. Sericulture .....	211
Silks of India.....	211
Silk Production .....	213
Silkworm rearing .....	214
Value addition.....	223
Suggested Readings.....	224
15. MINERAL PRODUCTS- M.P. Divya and M. Packialakshmi.....	225
Types of minerals.....	225
Suggested Readings .....	232

This is computer generated document and does not require signature

Scientific Publishers

Date :- Sat Apr 18 2026