

**THE MANAGEMENT OF NATIONAL FORESTS OF EASTERN UNITED STATES
FOR NON-TIMBER FOREST PRODUCTS**

by

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ABSTRACT

Many products are harvested from the forests of the United States in addition to timber. These non-timber forest products (NTFPs) are plants, parts of plants, or fungi that are harvested from within and on the edges of natural, disturbed or managed forests. Often, NTFPs are harvested from public forests for the socio-economic benefit they provide to rural collectors.

Social science and market research methods were used to examine the extent that NTFPs are addressed in national forest management plans, identify and explore issues that affect their management, and determine the attitudes and perceptions of forest managers at various levels within the U.S. Forest Service.

Non-timber forest products have not been considered in national forest management plans to the extent that have other forest resources. Fewer than 25 percent of the current management plans for the national forests of eastern United States address NTFPs. However, the Forest Service Directive System provides sufficient policy and procedural direction at the national and regional level for the management for NTFPs and legislation enacted in 2000 directs the Forest Service to develop a pilot program to begin managing for these products.

Managers with expertise and education in botany, wildlife, recreation, and wilderness had significantly more positive attitude toward managing for NTFPs than did managers with a more traditional (timber-based) educational background. A regression model of intention to include NTFPs in the forest management plans was developed using data from forest managers and based on the Theory of Reasoned Action. Both attitude and perception were found to be significant determinants of behavior intention.

A common perception among forest managers is that NTFP management is not an issue of public concern. Also, managers do not perceive that the lack of management is a problem. Without a visible and vocal constituency, the impetus for change must necessarily come from within the organization. Efforts by the U.S. Forest Service to manage for NTFPs will be hampered by a lack of information and expertise. But, the activities of more progressive national forests suggest that sufficient knowledge does exist for the agency to take a more proactive approach to management.

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PREFACE

This study examined the potential and constraints for the active management for NTFPs on national forest. Active management includes inventory and monitoring the resources, developing standards, guidelines and prescriptions, as well as the implementing mechanisms to charge fair market value and to return a portion to the units from which these revenues were generated. Though its primary focus in eastern United States and national forest management, much of what is presented has national and global implications

Chapter 1 presents a broad contextual overview of the research. It reviews the latest knowledge and information concerning the major focal areas of the research. This includes a review of the current environment that influences management of non-timber forest products. It examines and assesses the current and emerging approaches for forest management planning. Further, it provides an overview of the geographic focus and the overall research approach and methods.

Chapter 2 provides an overview of the state of knowledge on NTFPs as of October 1998. It defines non-timber forest products and the four product lines that make up the industry. The chapter presents a brief history of trade and use of NTFPs in Eastern United States. It uses secondary data to provide a base-line from which to evaluate NTFPs. Chapter 2 identifies and presents critical issues that influence the management of non-timber forest products.

Chapter 3 reports the findings of a content analysis of the forest management plans for the national forests of Eastern United States. It reports on the various documents that influence management of non-timber products. The chapter provides additional information on the geographic focus as well as the population of interest in this research. A significant section provides perceptions of U.S. Forest Service managers at different management levels. These perspectives are based on more than 40 semi-structured interviews with Forest Service professionals at four management levels: District, Forest, Regional, and National.

Chapter 4 presents the results of a web-based survey of U.S. Forest Service managers in Regions 8 and 9, and the National headquarters. The chapter presents the findings of an empirical application of the Theory of Reasoned Action (Fishbein and Ajzen 1975). The survey examined managers' intentions to include NTFPs in forest management as a function of their attitude toward these products and their perception of how influential people feel about this issue.

Chapter 5 uses a case-study approach to examine the potential for medicinal plant conservation in four locations under management by two different federal agencies. The study allows for a comparison of an eastern and western United States situation. The analysis provides insight into the opportunities and constraints to manage public forests for non-timber forest products.

The final chapter focuses on the conclusions that can be drawn from this research and the implications this research has on NTFP management for non-timber forest products. It discusses the critical issues and coalesces the findings of previous chapters with regards to the potential ramifications to management for non-timber products. The chapter explores the conclusions that can be drawn from this research and identifies areas in need of greater attention.