

# **Income Opportunities in Special Forest Products**

## **Self-Help Suggestions for Rural Entrepreneurs**

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### International system of units (SI conversion factors)

English unit	Conversion factor	SI unit
acre	4,046	square meter (m <sup>2</sup> )
board foot	0.002	cubic meter (m <sup>3</sup> )
bushel (U.S.)	0.004	cubic meter (m <sup>3</sup> )
Fahrenheit (°F)	(°F-32) 0.55	Centigrade (°C)
foot (ft)	0.3048	meter (m)
gallon (U.S. liquid)	0.004	cubic meter (m <sup>3</sup> )
hectare	1,000	square meter (m <sup>2</sup> )
inch (in.)	25.4	millimeter (mm)
pound per square inch (lb/in <sup>2</sup> ) (stress)	6,894	Pascal (Pa)
pound per square foot (lb/ft <sup>2</sup> ) (weight)	4.88	kilogram per square meter (kg/m <sup>2</sup> )
pound per square foot (lb/ft <sup>2</sup> ) (stress)	6.89	kilopascal (kPa)
pound per cubic foot (lb/ft <sup>3</sup> ) (weight)	1.60	kilogram per cubic meter (kg/m <sup>3</sup> )
ounce (oz) (U.S. fluid)	0.00003	cubic meter (m <sup>3</sup> )
quart (U.S. dry)	0.001	cubic meter (m <sup>3</sup> )
ton (metric)	1,000	kilogram (kg)
yard cubic (yd <sup>3</sup> )	0.9	meter (m)

# Preface

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This publication was made possible through research sponsored by the USDA Forest Service, State and Private Forestry, and conducted by the Midwest Research Institute (MRI) between May 1991 and March 1992. David R. Schumann was the project manager for the State and Private Forestry Division. Margaret G. Thomas served as project leader at MRI.

The MRI is an independent, not-for-profit organization that performs contract research and development for government and private sector clients. The research and support staff combine expertise and resources to carry out projects in more than four dozen scientific and technical disciplines. The Economics and Management Sciences Section of MRI provides expert assistance on rural development, strategic plans for economic and industrial development, management and business studies, market and feasibility analysis, and industry competitive assessment.

Special acknowledgments go to many contributors. At MRI, David Reisdorph assisted in gathering technical material on several forest topics. LaDene Morton and Howard Gadberry consulted on selected forest product topics, and James Damico assisted in locating and collecting extensive resource materials. The original production of this report was very capably supervised by Alice Crews and assisted by Cheryl Bender. At the Forest Products Laboratory, the final production of this report as an Agriculture Information Bulletin was efficiently implemented by the staff of the Publishing Center.

Finally, the authors wish to express appreciation to the many individuals who responded to our surveys and requests for information and photographs related to special forest products. Their generosity in time and effort is what made this publication possible. These individuals are noted in the contributor lists in appendixes at ends of chapters. We also wish to thank the owners of the several small enterprises who provided us with profile information. Their willingness to be discussed brings the ideas and opportunities of this publication to life for others.

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# Summary

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For many rural areas, the path to sustainable economic development will include innovative approaches to natural resource conservation, management, and utilization. This publication describes special forest products that represent opportunities for rural entrepreneurs to supplement their incomes. The types of products discussed in this publication include aromatics, berries and wild fruits, cones and seeds, forest botanicals, honey, mushrooms, nuts, syrup, and weaving and dyeing materials. Each chapter describes market and competition considerations, distribution and packaging, equipment needs, and resource conservation considerations, and presents a profile of a rural business marketing the products. In general, products suitable for very small or part-time operations are described. A suggested role for each type of microenterprise within a broader rural economic development framework is also mentioned. Each chapter concludes with a list of contributors and additional resources.

This publication supersedes USDA Agriculture Information Bulletin No. 278, "Special Forest Products for Profit: Self-Help Suggestions for Rural Areas Development," published in 1963.

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# Introduction

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Times have been hard in rural America, and the search is on to find ways to increase job and income opportunities for rural residents. There is growing awareness that for many rural areas the path to sustainable economic development will include innovative approaches to natural resource conservation, management, and utilization.

In the past, the focus on our Nation's forest resources has been to view them primarily as sources of timber. Compared to all that has been written about timber management and traditional timber products, discussion of nontimber or special forest products has been almost nonexistent. One purpose of this publication is to encourage a closer look at our Nation's forests and woodlands as intricate systems capable of sustained generation of a wide diversity of goods and services.

In reality, in every region of the country there are nontimber commodities and services that represent opportunities for rural entrepreneurs to supplement their incomes. Rural areas with access to public or private forest resources, State and private forestry specialists, and rural economic and small business development organizations need to explore these new avenues in special forest products. The intended audience for this publication includes just these individuals: forestry specialists, community leaders, rural economic development professionals, and small business development specialists who can effectively link potential entrepreneurs with new forest-based opportunities and the technical and financial assistance they need to take advantage of these opportunities.

The types of special forest products discussed in this publication include aromatics; berries and wild fruits; charcoal; chips, shavings, excelsior, sawdust, bark, and pine straw; cones and seeds; cooking wood, smoke wood, and flavorwood; decorative wood; forest botanicals as flavorings, medicinals, and pharmaceuticals; greenery and other floral products; honey; mushrooms; nuts; recreation and wildlife; specialty wood products; syrup; and weaving and dyeing materials. Each chapter includes a brief description of products and services, market and competition considerations, distribution and packaging, equipment needs, resource conservation considerations, and a profile of a rural business marketing the products. In general, products suitable for very small (one- to two-person) or part-time operations were the types selected for discussion in the text. A suggested role for each type of microenterprise within a broader rural economic development framework is also

mentioned. Each chapter concludes with an appendix that presents contributors and additional resources for use in exploring each alternative.

## Advice for New Entrepreneurs<sup>1</sup>

Starting any new enterprise can be risky both from a financial and a personal viewpoint. Before investing money, time, and energy into a potential new venture in special forest products, the new entrepreneur should complete a **personal evaluation, a market evaluation, and a project feasibility evaluation.**

The **personal evaluation** should walk a potential entrepreneur through his or her reasons and primary goals for considering the special forest products industry. It is important to clearly identify and prioritize these goals and the special resources and skills that an individual can bring to a new venture. Prioritizing goals is necessary because an individual may be expecting more from the new enterprise than can probably occur. For example, if a certain level of supplemental income is the most important goal, the economic feasibility of certain products may simply be too low to meet that goal and the individual may be better off seeking extra income from other employment. On the other hand, an inventory of resources and skills may indicate underutilized human resources, such as family members, whose labor could effectively subsidize a small enterprise that would otherwise not be cost-competitive.

The **market** and **project feasibility evaluations** are very critical as well. These steps are made more difficult by the fact that the formal markets for special forest products are more limited than for more traditional forest products. This means that market information is more difficult to obtain. Nonetheless, questions about the market to be answered include **who** will buy the product, **what** exactly will be sold, and **when** the harvest and sale would occur.

For the **market evaluation**, potential entrepreneurs need to identify their potential market, or buyers, through a number of approaches. The contacts and resources in

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<sup>1</sup> We acknowledge assistance, in this section, from Chris Schnepf, Area Extension Forester, University of Idaho Cooperative Extension Service, Coeur d'Alene, Idaho, who provided a draft of a paper entitled "Special Forest Products: Considerations for Harvesters."

this publication are a good starting place. Special forest product buyers may advertise through specialty magazines, local newspapers, or trade shows.

After locating a buyer, it is very important to clearly document the product specifications before harvest, then plan to meet or exceed these requirements. The markets are small, and one careless mistake in failing to deliver what a buyer was requesting may be enough to drop a small producer out of the market. Examples of product specifications include: how much material, what quality, what characteristics (size, color, etc.), what prices, what insect or other damages are allowable, interest in and price reductions for lower quality material, and packaging and shipping requirements.

For many special forest products, it is critical to coordinate the timing of the harvest with the requirements of the buyers. This is especially important when dealing with products that have a limited shelf life, such as mushrooms or floral greenery, or products that have fairly seasonal demands, such as charcoal. Close attention must be paid to all applicable State and Federal regulations, particularly regarding edible products, potential noxious weeds, and products to be shipped out of State.

The **project feasibility evaluation** addresses the technical and the financial feasibility concerns of the potential enterprise. Technical concerns include **where** and **how** the products will be found, harvested, packaged, and distributed.

The location of harvest sites will vary with the product and the forest land resources available in a region. Many successful special forest product entrepreneurs do not themselves own forest land; in fact, most of them may not. Harvesting from State and Federal forests, from forest industry lands, and from private forest land owned are all possibilities. Permits are usually required to harvest commercially from public lands. There is a growing interest in leasing land, which allows an individual to manage an area of forest for the sustained production of several special forest products.

The watchword for the future of the special forest products industry will be sustainable harvesting. Research is needed to answer most of the important questions about regeneration, long-term ecological impacts, and user conflicts from harvesting many of the products discussed in this publication. Until the pace of research on these nontraditional forest products quickens, guidelines for recommended harvest locations and methods will vary from one region to another. It is the responsibility of the harvester to learn all he or she can about the products and their forest stewardship responsibilities.

For the **financial evaluation**, a budget needs to be carefully developed, hopefully with the assistance of a forest specialist and a business planning specialist. At a minimum, the budget should itemize fixed and variable costs (including interest) and expected gross and net revenues. A careful inventory of resources already owned and time requirements (how much is available and when) is needed.

When all is finished, the potential entrepreneur needs a clear accounting of the hourly wage he or she could realistically expect to receive for the potential operation. The entrepreneur needs to ask, "Could I make more money at other available jobs or enterprises?" and "Do other advantages, such as being my own boss or spending time in the forest, compensate for lower wages?"

Needless to say, all of the above information from the personal, market, and physical and financial feasibility evaluations needs to be carefully developed and documented. Market information, budgets, harvest sites, and the host of project feasibility information needed will be impossible to sort out and evaluate if not documented. This becomes even more critical if an entrepreneur seeks assistance in evaluating his or her idea (and such assistance is highly recommended) or in financing the project. A clear business plan is the single most important documentation needed by any individual approaching a rural banker with a request for a loan.

Technical and managerial assistance in these evaluations is available from a wide variety of public sources committed to an area's rural economic development, agriculture, forestry, and small business development. Examples of these sources include forest service staff, county extension agents, local and regional economic development organizations, small business development centers, State departments of agriculture and economic development, banks, State universities, and local community colleges. The brief overview above and the brief summaries in the publication that follows in no way can substitute for direct, localized information and assistance to the potential special forest products entrepreneur.

## **Additional Resources**

The U.S. Department of Agriculture's Office for Small-Scale Agriculture publishes fact sheets on mushrooms, beekeeping, herbs, woodlots, and a number of other small-scale rural enterprises. The Office for Small-Scale Agriculture also publishes a quarterly newsletter, a directory, and a video on small-scale agriculture. To obtain further information on these publications and the video, contact the Office for Small-Scale Agriculture, Room 342-D, Aerospace Building, Washington, DC 20250-2200. (Telephone: 202-401-4640 or Fax: 202-401-5179)