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Forest Management in the Interface: Generating Income from Interface Forests[1]

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Interface forests present special challenges and opportunities for generating income. The traditional source of forest income—timber—may not be feasible if mills and other processors have relocated away from urbanizing areas. The cost of harvesting and transporting wood may be too great for the operation to be profitable. Where timber harvesting is still feasible, traditional management practices such as pesticides, clearcutting, and prescribed fire undergo greater public scrutiny and regulatory control in the interface. The interface offers new markets for nontraditional forest products as an affluent and discriminating clientele demands quality wood, food, decoration, amenity, and related forest products. This fact sheet explores these nontraditional and some traditional opportunities for generating income in the interface.

Alternative Forest Products

Many opportunities exist for landowners to generate income from nontimber forest products. For example, during the 1980s, the domestic market for herbal products grew an estimated 13 to 15 percent per year. Similar trends occurred in the 1990s when the overall market for medicinal products more than doubled between 1996 ($1.6 billion) and 1998 ($3.97 billion) (Parsons, Mortimer, and Hammett 2002). Specialty products and niche marketing increasingly dominate the agricultural economy in urbanizing areas, paving the way for forest landowners to join this potentially lucrative market. In many cases, nontimber forest products can be more profitable than timber or pulp. Management for these forest products also may indirectly promote other management goals such as increasing biodiversity, controlling invasive species, and clearing fuel buildup that increases wildfire risk.

Generally, nontimber forest products fall within one of four categories:

Decorative products include vines, flowers, Spanish moss, and Christmas season greenery. These seasonal products are lower risk and do not require year-round commitments of capital and labor.

Herbal and medicinal products include ginseng, goldenseal, lobelia, mayapple, pink root, black cohosh, bloodroot, blue cohosh, and slippery

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elm. Other plants having market value include red clover, sassafras, Solomon seal, star grub, St. John's wort, sweetgum, wild cherry, wild ginger, wild hydrangea, and witch hazel. Research plots on goldenseal and ginseng, for example, indicate there is good opportunity for significant income. Some medicinal plants are rare and at risk from overharvesting but a number of these products can be cultivated.

Edible products include various mushrooms (e.g., boletus, chanterelle, morel, oyster, shiitake), maple syrup, honey, fruits, and berries that can be grown in or near forests (e.g., wild blueberry, crabapple, brambleberry, grape, elderberry, cranberry, mulberry, teaberry, gooseberry). Landowners also may grow fresh salad vegetables for local restaurants (may require green houses) as well as walnuts and pecans.

Other nontimber forest products include pine straw, specialty charcoal, and hay for neighboring cattle operations.

The production of nontimber forest products can be very rewarding for landowners. However, it consumes time and risks failure just as does any business venture and should involve liability protection and business plans. Poaching, for instance, is not uncommon and can lead to lost revenue, environmental degradation, and liability issues. A Web site maintained by Virginia Polytechnic Institute and State University and the USDA Forest Service describes how to grow and market dozens of nontimber forest products. It also provides opportunities for product buyers and sellers to connect (Virginia Tech 2004).

A nontimber forest products industry can emerge in the wake of departing traditional forest products markets and may actually help sustain a shifting regional economy. Most nontimber products also are compatible with a thriving timber products industry.

Timber Products

Timber remains a viable source of income in interface forests—just a few truck loads of high quality hardwood saw logs can provide a handsome return. Landowners with high-value timber have more opportunities than owners with modest volumes of modest quality, especially if the distance to processing mills is great. Longer rotation ages and larger trees are feasible in interface forests because larger trees produce aesthetic benefits that may compensate for lost income caused by delaying harvest. That is, interface landowners may be more willing than commercial property owners to grow large saw logs because they do not need to maximize cash flow or rate of return.

Landowner cooperatives can increase economies of scale that determine profit levels by coordinating timing of forestry operations and insuring mills a reliable supply of timber and fiber. Such arrangements sustain relationships between suppliers and processors, relationships that often erode in interface forests. However, cooperatives are few and far between in the United States, in part because of property rights concerns. Forestry consultants can promote the benefits of economies of scale by scheduling harvesting and silvicultural operations on client's properties that are near one another.

Profit from timber often increases if value is added through processing. Rather than sell unprocessed logs to mills, some forest landowners may be interested in doing some of the processing themselves (Vollmers and Streed 1999) or contracting with local processors. Examples include cutting boards using portable sawmills; drying those boards in sun-powered kilns; and processing those boards into flooring, molding, paneling, or specialty dimensional lumber. Local niche markets exist for these value-added products that can be marketed as “home grown” or “regional.”

Forest certification provides another means to increase the value of forest products. In some markets, higher prices are paid for products certified to be produced in a manner deemed socially acceptable and ecologically sustainable. The certification process is usually carried out by an objective third party and consists of field visits, written verification, and subsequent audits. At present, several certification programs exist in the United States, including the Forest Stewardship Council, Sustainable Forestry Initiative, the American Tree Farm System, the National Woodland

Figure 1. Credits: Photo: Larry Korhnak

Owner's Association's Green Tag, and the Forest Stewardship Program. Forest certification costs vary with the number of acres certified and the type of certification, from as little as $.10 an acre for large parcels. Some certification systems charge a flat rate of $5,000 (Fletcher, Rickenbach, and Hansen 2002). Currently, the American Tree Farm System and Forest Stewardship Program are the only free programs. The challenge remains for landowners to find niche markets willing to pay the higher prices for certified products (Anderson and Hansen 2004).

Other income opportunities from trees grown in interface forests include Christmas trees and biomass for regional power.

Property Value

Property values can be affected positively or negatively by the presence of certain trees. The Council of Tree and Landscape Appraisers (CTLA) developed techniques honored by courts and insurance companies that assess the contribution of trees to residential property value. The techniques are

used to compensate landowners for dead or damaged trees. Tree value varies from case to case, but on average, trees in suburban and urban lots are worth $630 each (which includes replacement cost). Aggregating across the South, the total compensation value for residential trees approaches one trillion dollars (Nowak, Crane, and Dwyer 2002). Another way to calculate the value of trees comes from real estate transactions. Studies have found that nicely treed housing lots sell for 3 to 6 percent more than their unforested counterparts.

Obviously not all interface trees contribute equally to property value. In fact, some trees degrade value—property value may actually increase with the removal of some trees. Tree removal can create vistas, meadows, and trails, all of which add value. Some PersonNamehomeowners value scenic views so much that they sneak onto neighboring property and illegally cut vista-obstructing trees. Hefty fines for offenders do not dissuade these acts of scenic terrorism because the increased property value far exceeds the cost of fines. Selling access to vistas might become a source of revenue for some landowners.

Harvesting trees for land conversion into residential developments also affects property values. These conversion harvests dramatically change a forest's form and function because trees will no longer grow where roads, buildings, and lawns are established. Conversion harvests should be planned with two purposes in mind: 1) increasing amenity values on the residential property and 2) facilitating future silvicultural management. Residential property values will be increased if the operation intentionally spares aesthetic trees, vistas, meadows, and visual privacy buffers. Future vegetation management needed to maintain aesthetics, protect forest health, and mitigate wildfire risk will be more likely and more affordable if remaining trees are located on appropriate sites, near road access, and appropriately thinned to encourage healthy growth. This is more easily accomplished in natural forests or old plantations where selected tree removal need not leave trees in obvious rows. It may require significant investment in landscape design prior to clearing. For example, if residential development is planned for young pine plantations, it may be too difficult to obtain attractive and firewise results, in which case, the land will probably be cleared.

Tourism, Hunting Leases, and For-Profit Recreation

Income-generating recreation opportunities include hunting and trapping leases, all terrain vehicle (ATV) trails, wildlife-viewing areas, bed-and-breakfast lodging, and hiking trails. As with nontimber forest products, providing commercially viable recreation opportunities requires landowners to deal with the public, manage unsanctioned use, and limit liability concerns. Hunting leases, for example, might specify that hunters pay liability insurance, police themselves, restrict ATV use, provide deposits against possible damages, notify owners of presence, maintain roads and structures, specify whether subleasing is permitted, and so on. Kays et al. (1998) provide examples of leases and income opportunities associated with recreation opportunities on private forest lands.

Figure 2. Interface landowners can generate income by providing recreational opportunities, such as wildlife-viewing areas, on their land. Credits: Photo: Larry Korhnak

Legal Liability and For-Profit Enterprises

Ignorance is not bliss. Landowners inviting people onto their properties to recreate, harvest forest products, or purchase processed materials must take reasonable measures to protect the health and safety of those customers. The North Carolina Cooperative Extension has a Web site that outlines some of the liability concerns that landowners should be aware of (http://www.ces.ncsu.edu/nreos/forest/woodland/won-

21.html). With a bit of foresight, landowners can overcome or greatly reduce liability concerns. Periodic inspections should assess risks and hazards and appropriate measures should be taken to mitigate problems identified. Landowners should also consider if liability insurance is warranted. Many state and national organizations provide programs that help small business owners manage liability concerns and provide group rates for liability insurance.

Business Planning and Marketing

Niche marketing and direct mailing provide opportunities for interface forest owners to market their forest products. While urbanization brings challenges to generating income from traditional forest products, it also brings affluent consumers. Products can be marketed directly to consumers through farmers markets or to restaurants, wholesalers, and retail stores.

Having a well-prepared business and marketing plan helps ensure success. Developing a plan requires an understanding of the customer (Hilchey 1998). Census data or marketing firms can be used to identify and understand markets. Potential sellers of interface products need to know where consumers live, work, and shop so that products and marketing materials can be distributed to them. It is helpful to know about their average income and family composition to estimate disposable income. Young families have less disposable income than singles and empty nesters, for example, but other lifestyle characteristics may be useful to explore.

A successful business and marketing plan also requires knowledge about competitors, including their target markets and their customers. Landowners can research the methods competitors use to market and distribute their products to retail outlets or directly to customers. This information can be collected by going directly to competitor outlets and customers and talking with suppliers, buyers, and potential customers. Focus groups or brief questionnaires could help make this data collection process more systematic. It is also helpful to travel around the region to see how others are doing things differently, visiting terminal markets, restaurants, and farmers markets. General information can be found by subscribing to trade and food magazines and association newsletters, and assistance is also available from federal and state programs such as the Small Business Association and the Rural Development Business Programs.

Suggested Readings

Alabama Forest Owner's Association, Inc. http://www.afoa.org/.

Liability and the North Carolina Landowner http://www.ces.ncsu.edu/nreos/forest/woodland/won-21.html by Mark D. Smith, Robert B. Hazel, William E. Gardner and Edwin J. Jones,1995. *Woodland Management Notes*. North Carolina Cooperative Extension Service.

Small Business Association, http://www.sba.gov/

U.S. Census Bureau, http://www.census.gov/

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