

**Certification:**  
**Perceptions of Non-Industrial Private Forestland Owners in Louisiana**

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## **Abstract**

This study identifies Louisiana non-industrial private forest landowner attitudes toward forestry certification. Thirty-nine percent of respondents believe certification is necessary on private land, but nearly 60 percent believe state, federal and tropical forests should be certified. Respondents believe that certification is being promulgated primarily from non-governmental environmental organizations (NGOs) with consumer demand ranked last. With regard to trust to certify, the only entity that respondents trust to conduct forest certification is certified foresters. Respondents are generally not averse to having certifiers check their forestry operations, but only 2.5 percent of respondents said they would pay for the cost to certify their forestland. The number one suggested alternative to third-party certification is to have the state forestry department be the certifying agency.

Environmental certification of forest products and forestry practices is fast becoming an important issue facing the forest products industry. In response to environmental concerns, some environmental organizations, retailers and wood products companies are encouraging consumers to purchase wood originating from certified sustainable forests. These efforts are intended to counter an often-common perception by the general public that most forest practices involving the harvesting of wood do irreversible damage to the environment (Petersen 1994). The basis for certification is a perceived need for consumers to be assured by neutral third-party organizations that the forest industry is employing sound practices that will ensure a sustainable forest. Many groups have a stake in forest certification. This paper examines the perceptions of one important stakeholder group, the non-industrial private forestland owner.

### **Non-Industrial Private Forestland Owners**

The USDA Forest Service estimates that 736.7 million acres of forest exist nationwide, representing 33 percent of the total land area (Powell et al. 1994). Two-thirds of the nation's forests are classified as timberland (490 million acres) (Birch 1996). Of this, 358 million acres are in private ownership both industrial and non-industrial. Non-Industrial Private Forestland (NIPF) owners are defined as private forest owners who do not own or operate wood processing facilities, and include farmers, miscellaneous individuals and non-forest industry corporations, such as banks, insurance companies and the like (Bliss et al. 1997). According to Powell et al. (1994), private individuals or groups own 59 percent of our nation's timberland. In some regions of the country NIPF owners own the majority of the forest. For example, more than 75 percent of southern New England is owned by individuals (Brooks et al. 1993) while regions of the Northeast and the South have similar ownership patterns (Rickenbach et al. 1998).

Industrial forestlands, held by firms which often own wood processing facilities, are managed almost exclusively for timber production. On NIPF land, however, the production of nontimber benefits may be of equal or greater importance than the production of timber (Binkley 1981, Boyd 1984). Although production is lower on non-industrial private forests (NIPFs), they are the principle source of raw materials for the forest products industry (Henry and Bliss 1994).

While NIPF owners own from one to thousands of acres of forest, in the southern United States, nearly two-thirds own fewer than 10 acres (Birch 1996). With regard to production patterns in the South, a large share of the region's softwood timber production (35 percent) comes from the

relatively small share of forested acreage (23 percent) owned by forest industries. A much larger share of the region's forest lands (67 percent) is held by NIPF owners, but they produce a smaller share of the region's softwood timber products (58 percent) from their lands (Newman and Wear 1993). The differences in relative output reflect differences in management approach between the two ownerships.

This research study had the objectives of better understanding NIPF perceptions about certification in general, gauging the potential for their participation in certification and to solicit their opinions on potential alternatives to third-party certification. The setting for the study is Louisiana, a state where forestry related industries, second only to the chemical industry in size, account for over \$5 billion in value added to the state's economy (Vlosky et al. 1997).

## **RESEARCH METHODOLOGY & DESIGN**

The sample frame for this study is 6,660 non-industrial private timberland owners in Louisiana. This sample was extracted from a list of over 41,000 timberland owners in the state of Louisiana provided by the Louisiana Cooperative Extension Service. In addition, directories of forest landowners and state association membership lists were used. Mailing lists, key informants and selected demographic and industry data were compiled using these sources.

Pre-testing of draft survey instruments and telephone administered questionnaires were conducted using 25 randomly selected individuals from the sample population. In addition, input was solicited from the Louisiana Department of Agriculture and Forestry and the Louisiana Forestry Association. Pre-testing included follow-up interviews. Based on pre-testing, the survey instrument was refined before final distribution.

Non-response bias is a common concern in survey research. Bias caused by non-response can be evaluated by comparing those who responded to a survey with those who did not respond. In this study, information regarding acres of forestland owned and geographic location of sample members were known. By examining differences between respondents and nonrespondents using two-tail t-tests, no statistically significant differences were found with regard to acres of forestland owned or geographic distribution (at  $\alpha = .05$ ). This lack of differences reduced the concern about nonresponse bias.

Although Total Design Method (TDM) procedures call for two mailings, due to cost constraints, the survey process included one mailing in addition to TDM-recommended pre-notification and reminder postcards (Dillman 1978).

For respondent frame-of-reference consistency, environmental certification was defined in the cover letter and in the survey. In addition, it was clearly communicated to respondents that questionnaires were confidential, an approach that has historically been attributable to increased response rates. Study respondents were promised, and received, a copy of summary study results for participating in the study.

## **RESULTS**

### Response Rate

Of the 6,660 surveys that were mailed to forestland owners in Louisiana, 1,176 were either undeliverable or inappropriate because the respondent was deceased or no longer owned forestland. One thousand eighty-nine surveys were returned as useable, for an adjusted response rate of 20 percent. Industrial timberland owners comprised 16 percent of the respondents (171 respondents),

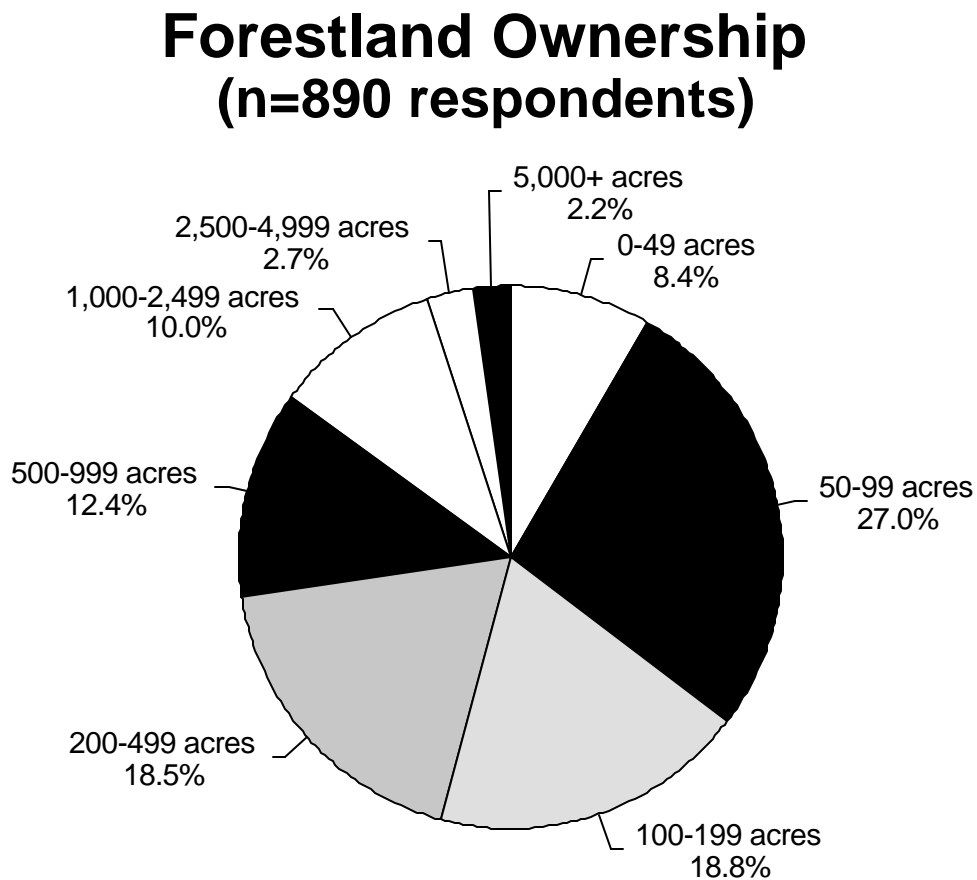
while 981 respondents were non-industrial private forestland owners. This article pertains only to the 981 non-industrial respondents.

### Respondent Profile

Over 50 percent of respondents are 65 years or older and earn over \$75,000 annually, while 77 percent are married and 63 percent have a college degree or advanced degree. Average forestland ownership for all respondents is 760 acres. As seen in **Figure 1**, over 50 percent of respondents own less than 200 acres while only 15 percent own 1,000 acres or more. On average, respondents acquired 112 acres over the past 10 years and sold an average of 33 acres over the same time period. This equals a total acquisition of 103,094 acres and 29,157 acres sold by respondents.

Eighty-six percent of respondents have harvested timber from their lands with 80 percent stating that the harvest was to produce wood products for sale. The majority of respondents said the number one reason to own forestland is for timber production. This is followed by the desire for a future estate for their families, as a land investment, and for recreational purposes (e.g. hunting, fishing, hiking).

**Figure 1.**



Nearly thirty percent of respondents (262 respondents) said they had a written forestry management plan for the property. Of this group, 87.4 percent said that the plan was prepared by consulting foresters or other forestry professionals. Of the total 889 respondents that responded to this question, two-thirds said that they have sought forestry management advice or assistance in the past. For the 85.5 percent of respondents that said they have harvested timber from their land, the primary products sold are sawlogs (667 responses), pulpwood (593 responses), fuelwood for their own use (153 responses) and posts and poles (114 responses). An “Other Products” category includes fence posts, lumber, etc. (41 responses).

**Certification Issues**

Certification of Public and Private Forestland

Respondents were asked about their perceptions of environmental certification with regard to different forestland ownerships. As seen in **Table 1**, respondents, on average, moderately agree that certification is necessary on federal, state and tropical forests. The lowest level of agreement is with certification on private forestland, the ownership of respondents.

In addition to the overall need for certification on tropical, state, federal and private forestland ownerships, respondents were asked to evaluate whether certification can help sustain the health of forests (**Table 2**). The pattern of responses is almost identical to the responses on the need for certification. Again, the lowest level of agreement is with regard to the ability of certification to sustain forest health on private forestland and highest for federal, state and tropical forests.

**Table 1. Rating of the Need for Certification of Timber Harvesting & Management for Different Ownerships**

**5-Point Scale Key**

1=Strongly Disagree; 3=Neither Disagree Nor Agree; 5= Strongly Agree

Ownership Type	Percent of Responses					Mean
	1	2	3	4	5	
U.S. public forests (National Forests, BLM) (n=874)	10.6%	6.2%	23.7%	20.6%	38.9%	3.7
State forests (n=878)	9.3%	7.2%	23.3%	22.1%	38.0%	3.7
U.S. private forests (n=870)	20.9%	10.6%	29.4%	17.7%	21.4%	3.1
Tropical forests (n=859)	9.0%	5.6%	26.7%	19.0%	39.8%	3.8

Table 2. Rating of the Perception that Certification Can Sustain the Health of Different Ownerships

**5-Point Scale Key**

1=Strongly Disagree; 3=Neither Disagree Nor Agree; 5= Strongly Agree

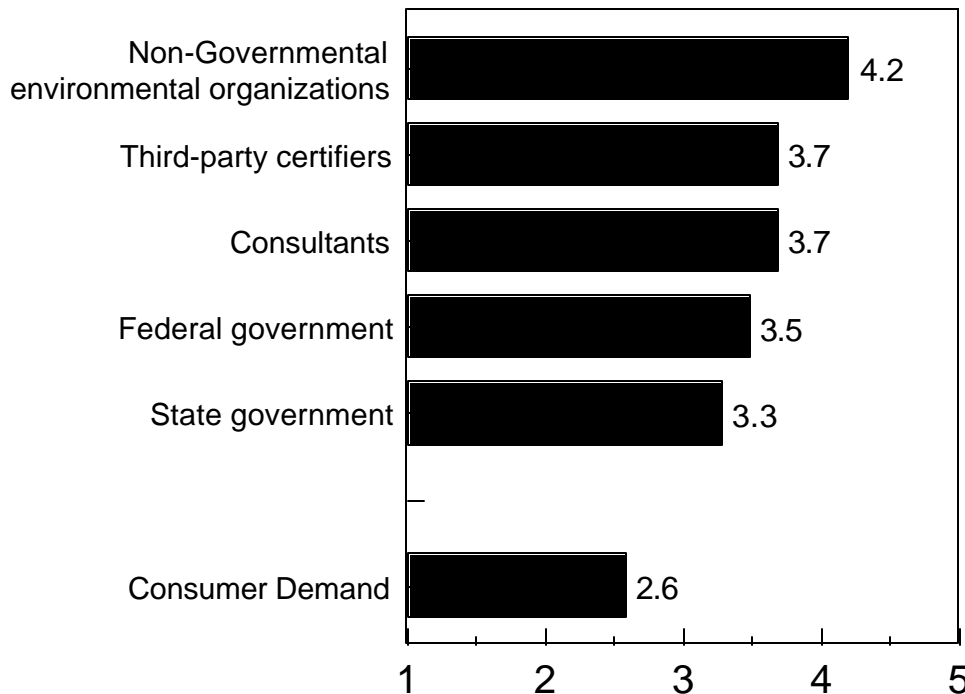
Ownership Type	Percent of Responses					Mean
	1	2	3	4	5	
U.S. public forests (National Forests, BLM) (n=862)	9.4%	6.0%	26.9%	22.7%	34.9%	3.7
State forests (n=862)	8.8%	6.3%	28.0%	23.4%	33.5%	3.7
U.S. private forests (n=860)	14.5%	7.1%	32.1%	20.1%	26.0%	3.1
Tropical forests (n=846)	8.5%	5.0%	29.8%	21.6%	35.1%	3.7

Perceived Impetus for Certification

It is often difficult to discern what the motivation is for certification. Is it being driven from the marketplace from consumer demand or is it from the certifiers themselves? As seen in **Figure 2**, respondents believe that certification is promulgated primarily from non-governmental environmental organizations (NGOs). This group is followed by the third-party certifiers themselves and consultants who stand to benefit from certification activities. Consumer demand ranked last and is the only choice ranked below neutral or 3.0 on a 5-point scale of agreement.

**Figure 2. What Respondents Believe to be the Impetus for Certification in the United States**

Scale: 1=Strongly Disagree to 5=Strongly Agree  
(n=822)

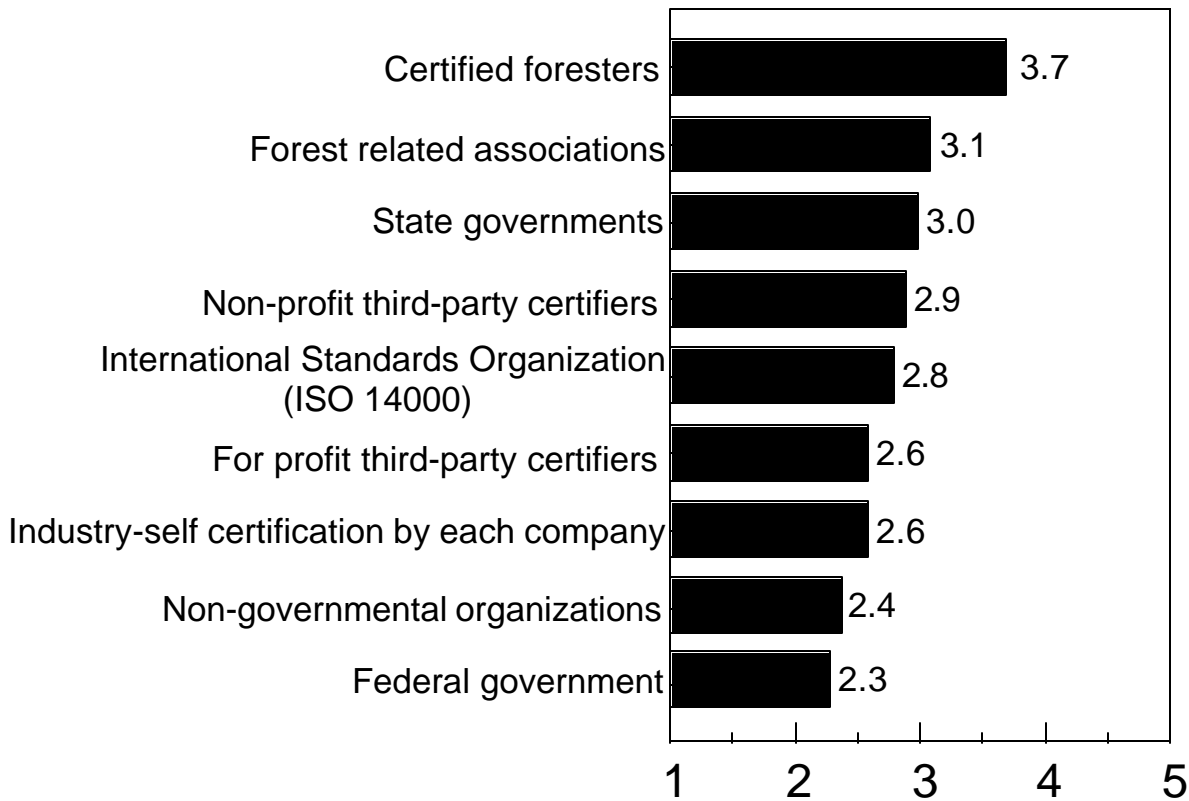


### Level of Trust to Certify Forest Management and Harvesting

One issue specific to environmental certification is to discern which organization respondents would trust to certify forest management and harvesting. Respondents were asked to evaluate their levels of trust in a number of entities including the federal government, self-regulation by the forest products industry, non-government environmental organizations (NGOs) and third-party certifiers. As seen in **Figure 3**, the only entity that respondents trust is certified foresters (rated 3.7 on a 5-point scale of trust). The only other entity rated above neutral (3.0 on a 5-point scale) are forest-related associations, so-called second-party certifiers. Ranked last is the federal government.

**Figure 3. Level of Trust to Implement and Monitor Certification**

Scale: 1=Trust Least to 5=Trust Most  
(n=832)



### Certification Issues

Questions were asked relating to desired and actual levels of involvement of the forestry community in the certification process. Results indicate that there is a wide perception gap between the need to be involved and actual involvement. For example, 56 percent of respondents somewhat agree or strongly agree that such involvement should take place while only 16 percent agree or strongly agree that the forestry community has been adequately involved in the certification discussion. A second



question posed was whether certification is a potentially viable mechanism to aid in promoting sustainable forestry in the U.S. Forty-one percent of respondents somewhat agree or strongly agree that this is the case.

Willingness to Pay for Certified Wood Products

A driver for suppliers to produce or distribute environmentally certified wood products is the willingness of customers to pay a premium to offset implementation costs. Similarly, the ability to receive an upcharge from downstream customers, primarily consumers, is another driver of certification involvement. In this study, respondents were asked if they believed consumers would, in fact, pay a premium for certified forest products. Only 13.5 percent strongly agreed this would be the case, with 17 percent somewhat agreeing. Thirty-seven percent somewhat or strongly disagreed.

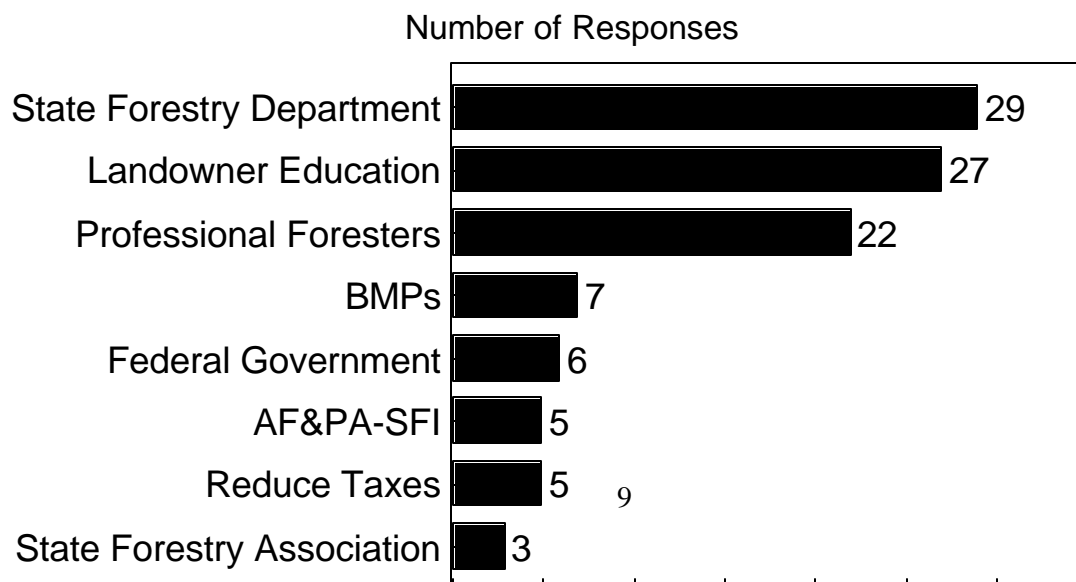
Respondents are generally not averse to having certifiers check their forestry operations. Twenty-three percent said they would allow such monitoring; 33 percent said no and 43 percent said maybe. Overall, there is a high level of self-confidence that they are doing the right thing and have nothing to hide. However, a willingness to pay for certification is glaringly lacking. Only 2.5 percent of respondents said they would pay for the cost to certify their forestland, and 71 percent said they would not pay anything. The balance of respondents (27 percent) said they might pay for certification.

Suggested Alternatives to Third-Party Certification

The last question posed to respondents was an open-ended question and asked if they had suggestions as to what might be viable alternatives to third-party certification of non-industrial private forestlands. There were 320 responses, of which 198 said certification was not necessary in any form, 16 said they were not informed enough to discuss alternatives and 104 offered comments regarding alternatives. **Figure 4** summarizes the frequency of the 104 responses.

Three suggestions comprise 75 percent of the suggested alternatives. The first is having the Louisiana Department of Agriculture and Forestry (LDAF) be the certifying agency. The point here is that respondents felt that adherence to state guidelines is sufficient and that monitoring by the LDAF would be useful. The second alternative is to better educate the NIPF owner on management and harvesting practices. The third significant suggested alternative is to have professional foresters certify NIPF lands. This is consistent with the high level of trust respondents have in professional foresters.

**Figure 4. Suggested Alternatives to Third-Party Certification**



## **Implications**

Non-industrial private forestland (NIPF) owners comprise a significant part of forest ownership in the United States. Studies have shown that NIPF goals and objectives for their forestland are diverse. In the context of forest certification, initiatives are being developed by certifiers to accommodate the unique ownership characteristics of NIPFs.

To date, there has been scant research on United States NIPF reactions to certification. This research partially fills that gap by identifying Louisiana NIPF attitudes toward certification, looking at their potential for participation and discussing their suggested alternatives to third-party certification. This information may help in the development of viable alternative strategies to third-party certification in Louisiana as well as help landowners develop certification planning and marketing tools for those who wish to participate in the third-party certification process. In addition, this information could be the starting point of examining NIPF attitudes towards certification in other states in the southern U.S. as well as in other regions in the country.

## References

- Binkley, C.S. 1981. Timber Supply from Private Nonindustrial Forests: A Microeconomic Analysis of Landowner Behavior. New Haven: Yale Univ. School of Forest. and Envir. Stud. Bull. No. 92.
- Birch, Thomas W. 1996. Private Forest-land Owners of the Southern United States, 1994. USDA Forest Service, Northeastern Forest Experiment Station. Resource Bulletin NE-138.
- Bliss, John C., Sunil K. Nepal, Robert T. Brooks, Jr., and Max D. Larsen. 1997. In the Mainstream: Environmental Attitudes of Mid-South Forest Owners. South. J. Appl. For. 21(1):37-43.
- Boyd, R. 1984. "Government Support of Nonindustrial Production: The Case of Private Forests." South. Econ. J. 51(July ):89-107.
- Brooks, R.T., D.B. Kittredge, and C.L. Alerich. 1993. Forest Resources of Southern New England. Resource Bulletin NE-127. Radnor, PA: USDA Forest Service, Northeastern Forest Experiment Station.
- Dillman, Don A. 1978. Mail and Telephone Surveys-The Total Design Method. John Wiley & Sons. New York, New York.
- Henry, William A., and John C. Bliss. 1994. Timber Harvesting, Regeneration, and Best Management Practices Among West Central Alabama NIPF Owners. South. J. Appl. For. 18(3):116-121.
- Newman, David H., and David N. Wear. 1993. Production Economics of Private Forestry: A Comparison of Industrial and Nonindustrial Forest Owners. Amer. J. Agr. Econ. 75 (August, 1993): 674-684.
- Petersen, Christina. 1994. "Green Certification of Wood." Current Issues in Forestry. University of Massachusetts Cooperative Extension System. 6(1).
- Powell, Douglas S., Joanne L. Faulkner, David Darr, Zhiliang Zhu, and Douglas W. MacCleery. 1994. Forest Resources of the United States, 1992. U.S.DA Forest Service General Technical Report RM234.
- Rickenbach, Mark G., David B. Kittredge, Don Dennis, and Tom Stevens. 1998. Ecosystem Management: Capturing the Concept for Woodland Owners. Journal of Forestry, April:18-24.
- Vlosky, Richard, A. Nicolas Koudou, N. Paul Chance, Marc McDill and JoAnn Doucet. 1997. "The Louisiana Solid Wood Products Industry: Resource Assessment, Industry Structure and Value-Added

Market Opportunities”. Final Report to Sponsor: US Forest Service, Southern Experiment Station, New Orleans, Louisiana. 200 pages.

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