

Forest Service

Northeastern Research Station

Research Paper NE-707



Characterizing Virginia's Private Forest Owners and Their Forest Lands

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Abstract

A recently completed forest inventory and two woodland owner surveys have given us insight about the owners of private forest lands in Virginia. There is increasing parcelization of forested lands and an increase in the number of nonindustrial private (NIPF) landowners in Virginia. More than half of the private owners have harvested timber from their holdings at some time in the past, and they control three-quarters of the private forest. Owners have a positive attitude toward timber cutting at a time when there is greater demand for products from the forest. In terms of decision making, private forest owners have control over marketed and **non**-marketed commodities. This situation needs monitoring to maintain good stewardship for future generations.

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Manuscript received for publication 20 July 1998

Published by:
USDA FOREST SERVICE
5 RADNOR CORP CTR SUITE 200
RADNOR PA 19087-4585

September 1998

For additional copies: USDA Forest Service Publications Distribution 359 Main Road Delaware, OH 43015 Fax: (740)368-0152

Introduction

Virginia has 15.4 million acres of forest land (61% of the total land area). More than 13.4 million acres of private forest are owned by an estimated 468,800 private ownerships. Some 12 million acres are owned by nonindustrial private forest (NIPF) owners. In terms of timber products, NIPF lands provide approximately 75 percent of the timber for forest industries in the state. In turn, these forest industries are the top manufacturing sector in the state and employ more than 120,000 people. Timber removals from growing stock in Virginia increased by 22.5 percent between 1977 and 1992 (Knight and McClure 1977, Thompson and Johnson 1994).

Resource professionals and policy makers are determined not to repeat past mistakes. The NIPF owners have been blamed for management practices that result in the poor condition of some stands following timber harvest. Resource professionals want to make sure that renewed interests in timber harvesting adhere to principles of good stewardship. The forest based community needs to monitor forest management activities in the state. Unfortunately, there has been little or no documentation of what is happening in Virginia's woodlands. To our knowledge, no one has examined the character and extent of contemporary management activities. However, the most recent inventory of the state's forest resources was completed in 1992 (Thompson and Johnson 1994). Although results of that resurvey do not allow a detailed analysis of on-the-ground management practices, they do provide information about

management classes and forested tract sizes (Thompson and Johnson 1996).

The USDA Forest Service updates statewide timber resource information approximately every 10 years. The latest reinventory of Virginia includes information from 4,235 permanent forested sample plots inventoried in 1992 (Thompson and Johnson 1994). A subset of these (3,221 plots classified as NIPF) was used in a study of forested tract size (Thompson and Johnson 1996).

Two separate landowner surveys also have been completed. One initiated in 1990 has information from 531 NIPF owners chosen from six counties (Highland, Warren, Prince Edward, Madison, Greenville, and Gloucester) and three geographic regions (Coastal Plain, Piedmont, and Mountain)(Hodge 1993). The questionnaire for the study consisted of 96 questions that were asked during an interview that took about 1 hour. The second survey has information from 313 private ownerships and 357 sample locations across the state of Virginia. Questionnaires were distributed to provide comprehensive geographic coverage and were part of a national study of forest-land ownership (Birch 1996; 1997). The questionnaire consisted of 18 questions and was mailed to the sample owners who took about 15 minutes to complete it. A sample of nonrespondents was contacted by phone and interviewed. The purpose of this paper is to examine results from these three independent studies and provide a more inclusive description of Virginia's private forests and their owners.

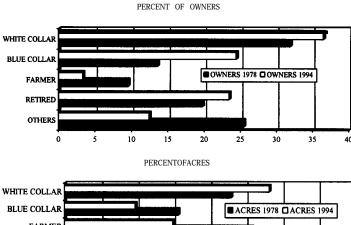




Figure 1, -Distribution of individual ownerships, by owner occupation, Virginia, 1978 and 1994.

Landowner Characteristics

Nationwide, the 'new' (having first acquired forest land since 1978) individual private owner is younger, better educated, and has a higher income than the owner of the past. Comparing occupation data from 1994 and 1978 (Birch 1996, Birch et al. 1982) shows the changing occupational profile of Virginia owners. The most recent study (Birch 1996) shows an increase in the proportion of white collar, blue collar, and retired owners (Fig. 1). The proportion of acreage owned increased for retirees and white collar workers and decreased greatly for farmers and blue collar workers.

The Hodge study (Hodge and Southard 1992) shows a high proportion of forested acres owned by retirees (45%) and white collar (33%) workers, while blue collar workers (11%) and farmers (11%) owned smaller proportions. The acreage owned by individuals sampled in this study differs from Birch's results mostly because the study did not include ownerships with fewer than 20 acres of forest land, and also a slightly different grouping of occupations was used.

Owner age distribution is another characteristic common to both studies: although slightly different groupings were used, the results are similar. Birch found that 20 percent of all owners of forest land were over 65 and that they own 38 percent of the private forest land in Virginia (Fig. 2). Hodge found that by size class of ownership, more than 50 percent of the forest land ownerships with greater than 50 acres of forest land was owned by people over 61 years old. Ownerships with 20 to 50 acres of forest land had 44 percent of the acreage owned by those over 60. This view was supported by Birch who found that individual owners with at least 1 acre of forest land and under age 45 averaged 12 acres per owner, owners 45 to 64 averaged 20 acres per owner, and owners over 65 averaged 43

acres per owner. The high proportion of older owners has serious implications for land tenure in the future. Much of the forest land owned by older owners will transfer to others in the next decade.

The results of the two variables (occupation and age) described above are similar between the Birch and Hodge studies, and other owner characteristics described by Hodge can broaden the description of Virginia owners. Hodge found that some 7 percent of the owners were from minority groups. In 1978, Birch and others (1982) estimated that 10 percent of the owners in Virginia were from minority groups. These minority owners held only 4 percent of the private forest for an average of 12 acres per owner, well below the minimum acreage required to be included in the Hodge study.

Hodge found that education levels of the respondents were diverse: 15 percent had less than a high school education, 25 percent had high school diplomas, 35 percent had some college or a college degree, and 25 percent had post graduate educations. In terms of gross earnings, Hodge found: 19 percent of the respondents earned less than \$20,000, 25 percent earned between \$20,000 and \$39,999, 27 percent earned between \$40,000 and \$69,999, and the remaining 29 percent earned more than \$70,000 per year.

The average private ownership in Virginia is about 29 acres of forest land (Birch 1996). The distribution by size class of ownership has changed since 1978 (Fig. 3). Parcel fragmentation is occurring, resulting in an increase in the proportion of ownerships with smaller parcels (fewer than 100 acres) and decrease in ownerships with larger parcels (more than 100 acres). The proportion of acreage in ownerships with fewer than 100 acres of forest land has increased. The largest decrease in acreage was in ownerships with more than 1,000 acres of forest land.

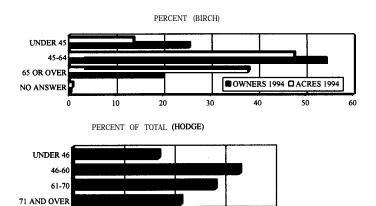
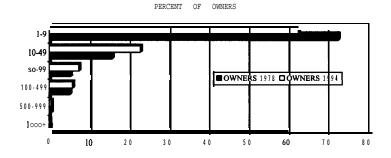


Figure 2.-Distribution of individual ownerships, by owner age, Virginia.

Birch found that 66 percent of the owners with 36 percent of the private forest land have only one tract of forest land (Table 1). In addition, 6 percent of the owners control more than one tract and live within 1 mile of their farthest tract; these owners have 10 percent of the private forest in Virginia. At the other end of the spectrum, 13 percent of the owners live more than 100 miles from their farthest tract and they have 14 percent of the private forest land.

Size of ownership and acreage of forested tract size should be closely related. Thompson and Johnson presented acreage by forested tract size by nonindustrial private forest (NIPF) owner group (Table 2). Birch compiled a similar table of acreage by size of ownership and NIPF owner group (Table 3) and average tract size and NIPF owner group (Table 4). In Table 4, corporate farms are switched from the farmer owned column to the other private column to be more comparable with the Thompson and Johnson data.



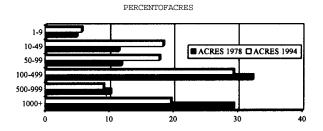


Figure 3.-Distribution of private ownerships, by size class of ownership, Virginia, 1978 and 1994.

Table 1 .-Estimated number of ownership units and acres of forest land, by distance from tracts, Virginia, 1994

Distance	1 tract	More than 1 tract				
		Nearest tract	Farthest trac			
		-OWNERS				
Less than 1 mile	235,800	113,500	37,100			
2-5 miles	10,000	3,500	10,800			
6-I 5 miles	4,800	12,400	14,000			
16-25 miles	4,700	2,900	5,200			
26-50 miles	6,100	7,800	6,200			
51-100 miles	3,700	2,000	45,000			
More than 100 miles	29,800	5,800	29,600			
No answer	25,500	500	500			
Total	320,400	148,400	148,400			
		ACRES (Thousands)-				
Less than 1 mile	2,803	4,583	1,300			
2-5 miles	447	1,280	1,137			
6-15 miles	203	784	1,179			
16-25 miles	325	356	609			
26-50 miles	284	447	935			
51-I 00 miles	366	243	1,501			
More than 100 miles	528	366	1,378			
No answer	203	243	243			
Total	5,160	8,282	8,282			

Table 2.-Acreage by forested tract size and NIPF owner group, Virginia, 1992

Tract size class		NIPF			
	All classes	Farmer owned	Private individual	Other corporate	
I-10 acres	1,275,629	206,176	984,990	62,461	
1 I-50 acres	3,495,691	1,166,849	2,065,698	263,144	
51-100 acres	2,616,960	1,067,743	1,349,579	199,638	
101-200 acres	2,051,753	803,541	987,265	260,947	
201-500 acres	1,500,142	449,875	692,697	357,570	
501+ acres	969,326	174,180	409,371	385,775	
Total	11,909,501	3,870,366	6,489,600	1,549,535	

Table 3.-Acreage by size of ownership and NIPF owner group, Virginia, 1994

Ownership size class		NIPF		
	All classes	Farmer owned	Private individual	Other private
I-9 acres	772,000	81,300	650,100	40,600
1 O-49 acres	2,518,900	893,800	1,584,500	40,600
50-99 acres	2,356,400	853,200	1,462,600	40,600
100-l 99 acres	1,990,800	731,300	1,137,600	121,900
200-499 acres	2,072,000	11178,200	609,400	284,400
500+ acres	2,355,900	893,800	609,400	852,700
Total	12,066,000	4,631,600	6,053,600	1,380,800

Table 4.-Acreage by average tract size and NIPF owner group, Virginia, 1994

Tract size class		NIPF		
	All classes	Farmer owned	Private individual	Other private
I-9 acres	1,300,100	325,000	893,800	81,300
1 O-49 acres	3,900,200	1,625,100	2,234,500	40,600
50-99 acres	3,128,400	1,259,500	1,706,400	162,500
100-l 99 acres	1,706,400	487,500	853,200	365,700
200-499 acres	1,300,100	568,800	284,400	446,900
500+ acres	730,800	162,500	81,300	487,000
Total	12,066,000	4,428,400	6,053,600	1,584,000

Owner Objectives

Forest lands produce many benefits for their owners, so it is not surprising that land owners express diverse reasons for holding forest land. Many potential benefits from owning forest land are not competitive with each other. Some benefits can be produced with little or no effect on others, and some benefits even increase when another benefit is produced.

Birch found that nearly 46 percent of the private forest-land owners believe the primary reason for owning forest land is that it is simply "part of the farm" or "residence" (Fig. 4). In general, these ownerships hold tracts that are smaller than average. Another 7 percent stated that farm or domestic use is the most important reason for owning forest land. Many of these owners consider their woodland as a source of fence posts, fuelwood, and similar products.

Recreation and esthetic enjoyment is the primary reason why 24 percent of the owners hold forest land. The area controlled by owners with these objectives represents 18 percent of the private forest land. Land investment often is thought of as a hedge against inflation. Private landowners who list land investment as the primary reason for owning account for 8 percent of all owners and hold 15 percent of the private forest. Only 10 percent of the private forest-land owners hold their land primarily for timber production, but these owners control 19 percent of the private forest. Most of this acreage is owned by forest industry owners. Some owners own forest land for the minerals under the surface; many of these are included in the "other" category.

Benefits expected in the next 10 years provide another perspective on ownership objectives. Esthetic enjoyment predominates with 45 percent of the owners expecting it to be the most important benefit. Owners with this primary objective control 20 percent of the private forest.

Increase in land value also was an important ownership objective, with 26 percent of the owners holding 26 percent of the private forest. Only 4 percent of the owners cite income from the sale of timber as the most important benefit; they own 25 percent of the private forest. Firewood is the most important benefit for 2 percent of the owners, who control 2 percent of the private forest.

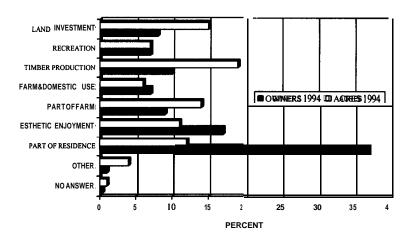


Figure 4.—Distribution of private ownerships, by primary reason for owning forest land, Virginia, 1994.

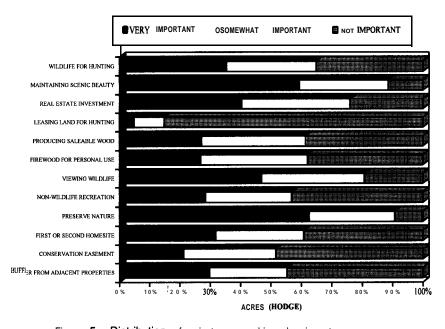


Figure **5.—Distribution** of private ownerships, by importance of reasons for owning forest land, Virginia, 1992.

Hodge looked at reasons for ownership of forested land with an importance scale for each of 12 reasons (Fig. 5). Preserving nature, maintaining scenic beauty, and viewing wildlife were the top reasons cited by Virginia NIPF owners as being very important reasons for owning forest land. Top reasons cited as "not important" were leasing land for hunting, conservation easement, and buffer from adjacent properties.

Timber Harvesting Behavior

There is a positive attitude toward and experience with timber harvesting. Birch found that 53 percent of the private owners have harvesting experience; they control 70 percent of the private forest (Fig. 6). Forest industry is included in the 70 percent and has 1.4 million acres (11% of the private forest land). Hodge (1993) found that 55 percent of those surveyed (NIPF owners) had harvested timber. For those who had not harvested, 41 percent said they intend to cut in the next 10 years.

Thirty-seven percent of private forest-land owners state that they intend to harvest in the next 10 years (Birch 1996). These owners control 53 percent of the private forest. Conversely, 44 percent of the owners say they never intend to harvest. They hold only 13 percent of the private acreage (Fig. 7). Owners with indefinite harvest plans control 33 percent of the private forest land.

Intention to harvest is related to size of forested ownership. With the exception of the very small ownerships (those with fewer than 10 acres of forest), the majority of the acreage is controlled by landowners who express a willingness to harvest (Fig. 8). More than half of the acreage in ownerships with more than 200 acres of forest is controlled by owners who intend to harvest in the next 10 years. Hodge found a significant relationship between future harvest plans and size class. Virginia NIPF owners with more than 50 acres were more likely to harvest than those with less.

Thompson and Johnson examined growing-stock volume, growth, and removals by forested tract size (Thompson and Johnson 1996). Differences in growing-stock volume varied by forested tract size; however, these differences were not determined to be significant (Fig. 9). Highest volume per acre averaged 1,840 cubic feet per acre in the 1- to 1 O-acre category, the lowest average was 1,682 cubic feet in the 1 01- to 200-acre class.

Average softwood growth and removal volumes were consistent across forested tract size classes on a cubic foot per acre basis (Fig. 10). Average softwood growth ranged from 18 cubic feet per acre in the parcels greater than 500 acres to 21 cubic feet per acre in the 201- to 500-acre class. The level of softwood removals was also consistent across all size classes, ranging from just under 11 cubic feet per acre in the 201 to 500-acre class to nearly 17 cubic feet per acre in the greater than 500-acre class.

OWNERS 1994

ACRES OWNED 1994

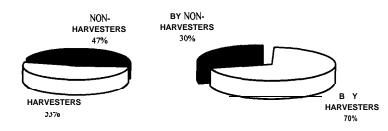


Figure **6.—Harvest** experience of private ownerships and for acres of forest land owned, Virginia, 1994.

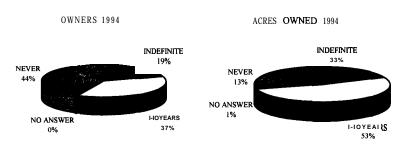


Figure 7.-Harvest intentions of private ownerships and for acres of forest land owned, Virginia, 1994.

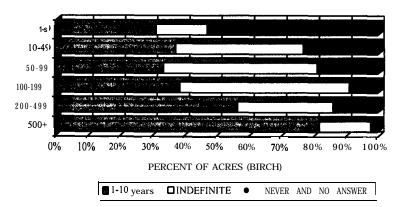


Figure 8.-Harvest intentions of private ownerships and for acres of forest land owned, by size class of ownership , Virginia, 1994.



Figure 9.-Average cubic-foot volume per acre, by forested tract size class , Virginia, 1992.

Average annual growth of hardwood growing stock was relatively constant across all forested tract size classes, ranging from 35 cubic feet per acre in the 201- to 500-acre class to 39 cubic feet per acre in the 1- to 1 O-acre category (Fig. 11). Hardwood removals indicated some differences by forested tract size. Hardwood removals in the 1- to 1 O-acre category averaged 15 cubic feet per acre and increased to 29 cubic feet per acre in the 201- to 500-acre class. This corresponds closely with owner intentions to harvest in the next 10 years.

Management Planning

With the advent of the Forest Stewardship
Program, interest has increased in getting
owners to have written management plans. An
estimated 17 percent of the private forest-land
owners have a written management plan for
their acreage (Fig. 12). These owners control 33
percent of the private forest. Forest industry
owns 25 percent of the forest land owned by
those with a written plan. The other 75 percent
of the forest area is controlled by nearly 77,900
NIPF owners with some form of written plan.

Nearly 22 percent of the owners with a written plan stated that they prepared the plan (Fig. 13). These owners control 16 percent of the area covered by written plans. Fewer than 1 percent of the plans were prepared by consultants, representing 6 percent of the forest acreage covered by written plans. Industrial foresters prepared 2 percent of the plans for 35 percent of the acreage covered by written plans. Most of this area was for industry ownerships.

State service foresters and wildlife biologists have been in the management-plan preparation business for a long time. They wrote 66 percent of the plans for owners, for 29 percent of the area covered by written plans. Others such as the USDA Extension Service and USDA Natural Resources Conservation Service prepared the remaining 10 percent of the plans for 17 percent of the forest area covered by management plans. The totals exceed 100 percent because some owners listed more than one agency or person preparing the plans.

The number of owners and acreage covered by written plans is related to size class of ownership (Fig. 14). In general, as size increases, the proportion of owners and acreage owned with written plans increases.

Only in the larger than 500-acre class is more than 50 percent of the forested acreage covered by a written plan. It also seems that intention to harvest is closely related to whether there is a written plan. Hodge (1993) found a significant

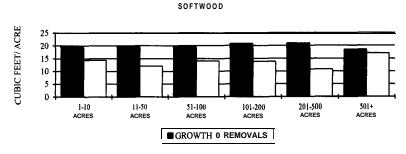


Figure 1 O.-Average softwood cubic-foot growth and removals per acre, by forested tract size class, Virginia, 1992.

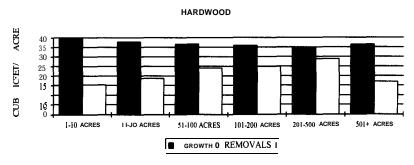


Figure 11 .-Average hardwood cubic-foot growth and removals per acre, by forested tract size class, Virginia, 1992.

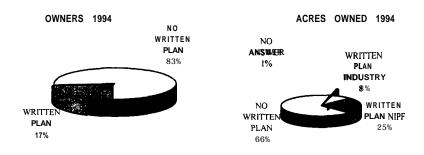


Figure 12.—Distribution of private ownerships and acres of forest land owned, by whether a written management plan had been prepared, Virginia, 1994.

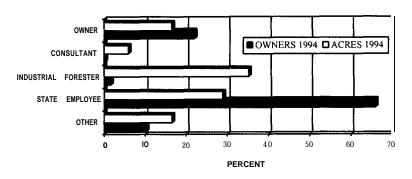


Figure 13.-Distribution of private ownerships and acres of forest land owned, by who prepared the written plan, Virginia, 1994.

relationship between size class and those seeking professional forestry assistance. Virginia **NIPF** owners with more than 100 acres were more likely to seek forestry assistance than those with smaller parcels.

Birch's most recent study found that in Virginia 19 percent of the owners with 49 percent of the private forest land have received some form of forestry assistance. The number of owners and acreage covered by written plans is also related to size class of ownership (Fig. 15). In general, as size increases, the proportion of owners and acreage owned with written plans increases. More than half of the area in ownerships with greater than 100 acres of forest land is owned by those who have received some form of forestry assistance. Most of the forest industry lands in Virginia are in the greater than 500-acre class, but half of the NIPF acreage in the class was owned by those who have received assistance.

The main reasons Virginia NIPF landowners gave for seeking forestry advice were timber sales, timber stand management, reforestation, and general forest management. Birch found that 90 percent of the owners who have received forestry assistance have harvested trees at some time during their ownership. Hodge found that 69 percent of those seeking professional assistance have harvested trees from their tracts. Farmers, individuals, and the other ownerships seek assistance at different rates and by different acreage groupings. Birch and Pywell(1986) identified target groups for marketing forestry assistance in Pennsylvania.

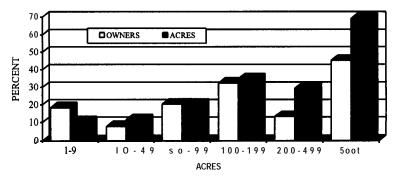


Figure 14.—Distribution of private ownerships and acres of forest land owned with written plans, by size class of ownership, Virginia, 1994.

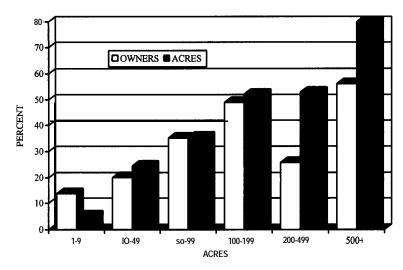


Figure 15.—Distribution of private ownerships and acres of forest land owned by those who have received some form of forestry assistance, by size class of ownership, Virginia, 1994.

Needs of Virginia's NIPF Owners

Information from the studies discussed in this paper can be used by natural resource professionals to plan for the future need of the state's NIPF owners. Indications are that forested land in the state is becoming parcelized, and the trend will continue as aging NIPF owners or their heirs divide and sell forested parcels. This has serious implications for the long-term viability of Virginia's forests. NIPF owners with smaller parcels are less likely to harvest or seek professional forestry assistance. Hodge reports that more educated NIPF owners are more likely to seek forestry assistance, which is good news for those involved in providing assistance.

To instill a stewardship ethic in owners of Virginia's NIPF lands, we need to reach the multitude of owners and to educate them on the benefits of forest management. The question must be posed: Management for what? Because 83 percent of Virginia's NIPF owners have no written management plan, we need to focus on how to reach these

owners. Targeted messages need to be developed so that owners can relate the message to their ownership objectives.

All the ownership objectives specified in the surveys could benefit from planned management. Much of the state's forest lands are used for recreation. Recreation includes hunting, camping, and fishing, as well as hiking and more passive forms of recreation. Management for wildlife and recreation requires a variety of silvicultural and management practices, which could include selection cuts, regeneration cuts, and thinnings. Timber production on the other hand may benefit from even-age management or clearcutting. Acres of forest owned for investment should increase in value under a management plan, as well as providing added income from timber harvesting if the owners so desire.

The nearly 4 million acres of forest land that are part of farms in Virginia can provide added income and such products as fuelwood, lumber, and fenceposts under forest management. There is no owner objective specified in the

surveys covered by this paper that would not be more achievable under some level of planned management. The challenge is to inform and educate the nearly half million NIPF owners so they understand and accept the benefits of management.

Targeting **NIPF** Owners

Using the information presented here, specific ownership groups can be defined and target populations identified for disseminating information on forestry and forest management. Group profiles generated by analysis of survey data provide part of the picture on how to reach owner groups. These groups can be divided by size class and occupational status. Retired people, farmers, executives, and professionals control nearly 60 percent of Virginia's forest land (7,597,000 acres). Retired people alone control nearly 4 million acres, with full-time farmers placing second (1.5 million acres), managers third (1.3 million acres), and professionals fourth (0.9 million acres).

The most accessible information on Virginia's forest owners is how much forested land they own. Other characteristics may be difficult to obtain until the resource professional has developed a relationship with the landowner. The size of ownership is public information and is available in the county clerks office in each Virginia county. It may be tedious in some counties for not every county has this information computerized. A grouping by size class would lend itself to a direct mail approach. Materials of a general nature could start the education process by describing good stewardship and forest management practices. The direct mail approach might also be used with owners who have adjacent parcels to suggest their "joint management" of several smaller parcels. Some communities have had success with such a multiple owner approach (Campbell and Kittredge 1996).

Target: Small ownerships

The 295,000 owners with fewer than 10 acres of forest land, control 772,000 acres of forest in Virginia. It is difficult to reach this group except through the mass media. If forest landowner associations become more visible to the public, this group may become more influential. Organized groups of small landowners could provide a forum for information exchange and joint management opportunities. Associations also could improve the marketing of forest products by aggregating sufficient timber to achieve economies of scale or hire consultants to assist members in management planning.

Target: New NIPF owners

The 'new owners' could be approached by working with local real-estate agents in counties where there is significant forested lands and where rapid turnover is taking place. Special seminars or programs could be offered to realtors about forestry assistance and printed materials left with them to give to the new forest owners. The Virginia Department of Forestry (DOF) has a "new forest landowner" packet with information on the Forest Stewardship Program and other

DOF publications. Examples include articles on estate planning, best management practices (BMPs), seedling procurement, state forestry laws, the location of DOF offices throughout the state, a list of other natural resource agencies, and how to request a visit by a resource professional.

Target: Retirees

Retired people who control nearly 4 million acres of forest may be reached through local chapters of the American Association of Retired Persons (AARP) as well as through articles in *Modern Maturity* a (publication of the association). Articles featuring seniors who are actively managing their forest land and dealing with transferring the land to the next generation could be of interest. AARP conducts frequent tours and may be interested in a well-organized forest management tour. AARP has offices in each state. Elderhostel, Inc., an international nonprofit organization that provides educational programs for older adults, is another avenue for reaching this group with programs at colleges and universities across the country. Programs and information on taxation and estate planning would be of special value to this group.

Target: Professionals and Managers

Professionals and managers may be reached on the job through such publications as the Wall Street Journal and Business Week. Both have published articles dealing with forestry issues in the past. Because reasons for ownership in Virginia are not primarily economic, presentations to business and professional clubs and fraternal organizations should balance information related to the economic benefits of management, forest taxation, and marketing of forest products with information on esthetic objectives such as wildlife management and scenic beauty. As women are increasingly involved in the business and professional world. magazines such as Working Woman should be considered for articles on forestry investment. Workshops for bankers, real-estate brokers, CPAs, and tax assessors also could be of value in getting information on forestry into the hands of professionals and managers.

Target: Farmers

Farmers could be informed through traditional means about best management practices, multiple use management, marketing of forest products, and forest taxation. Information on tree farming may be of particular interest to this group. Good avenues for reaching this group are through County Extension programs and newsletters, which provide outlets for educational efforts. Conservation district newsletters should not be overlooked. County fairs are appropriate places for displays and dissemination of information.

Target: All other NIPF owners

Essential needs bring people to certain locations regardless of age, occupation, or interests. Shopping centers, libraries, schools, and county buildings serve thousands of people daily. Displays on forestry topics and information on where to go for forestry assistance would be available to **NIPF** owners.

Local newspapers also should be considered as a way to reach this group of forest owners as are local service organizations such as the Lions Club or Rotarians, which often host guest speakers. Youth education also should be considered as a way to reach landowners. Organized groups such as Scouts, 4-H, and the Future Farmers of America provide an excellent opportunity to educate tomorrow's forest owners. Also support of educational programs such as Project Learning Tree and Project Wild in local schools is essential.

Virginia Is Not Alone

In the 13 southern states alone, in 1994, there were nearly 5 million private forest-land owners with 187.6 million acres of forest land (Moulton and Birch 1995). In the South this amounts to 89 percent of the forest and 94 percent of the timber harvested. By combining information from FIA inventories and forest ownership studies, we can better understand the timber supply potential from these lands. Effects of timber prices, woodland accessibility, and other factors that influence the economic availability of timber were not considered in this analysis. But the result of this analysis reveals a storehouse of economic opportunity.

Recent government initiatives such as the Forest Service Stewardship Program encourages more management planning. Nearly one-third of the state's private forest land is covered by written management plans, most of it in the hands of larger owners. Of course, it is one thing to write management plans and quite another to carry them out. How landowners respond to further initiatives in forest management is based on a complex set of socioeconomic factors. Only time will tell how they all work out, but there is no denying that present landowner intentions reveal a potential opportunity for forest management in Virginia.

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A recently completed forest inventory and two woodland owner surveys have given us insight about the owners of private forest lands in Virginia. There is increasing parcelization of forested lands and an increase in the number of nonindustrial private (NIPF) landowners in Virginia. More than half of the private owners have harvested timber from their holdings at some time in the past, and they control three-quarters of the private forest. Owners have a positive attitude toward timber cutting at a time when there is greater demand for products from the forest. In terms of decision making, private forest owners have control over marketed and non-marketed commodities. This situation needs monitoring to maintain good stewardship for future generations.



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