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The Small Forest Landowner and His Woodland

by

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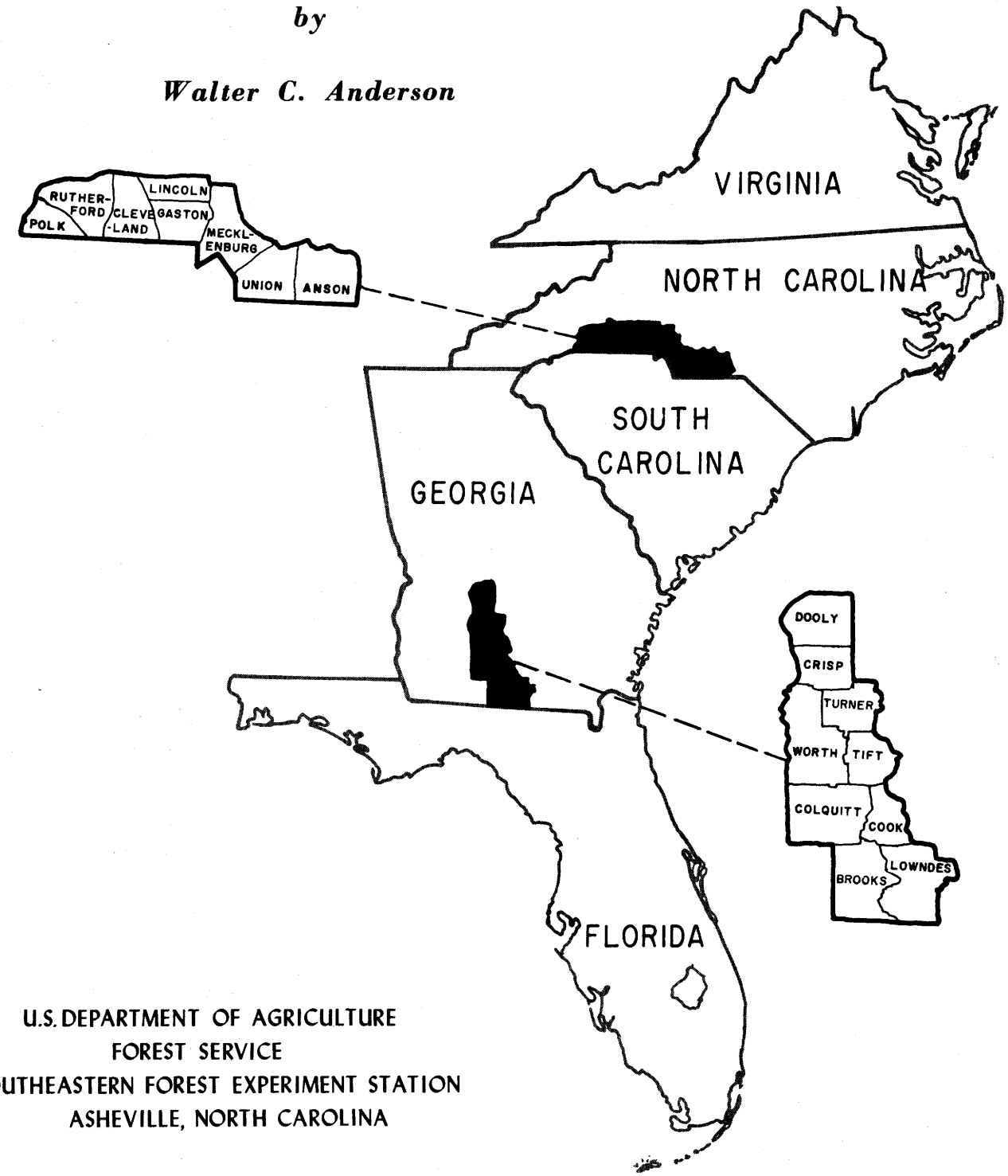

U.S. DEPARTMENT OF AGRICULTURE
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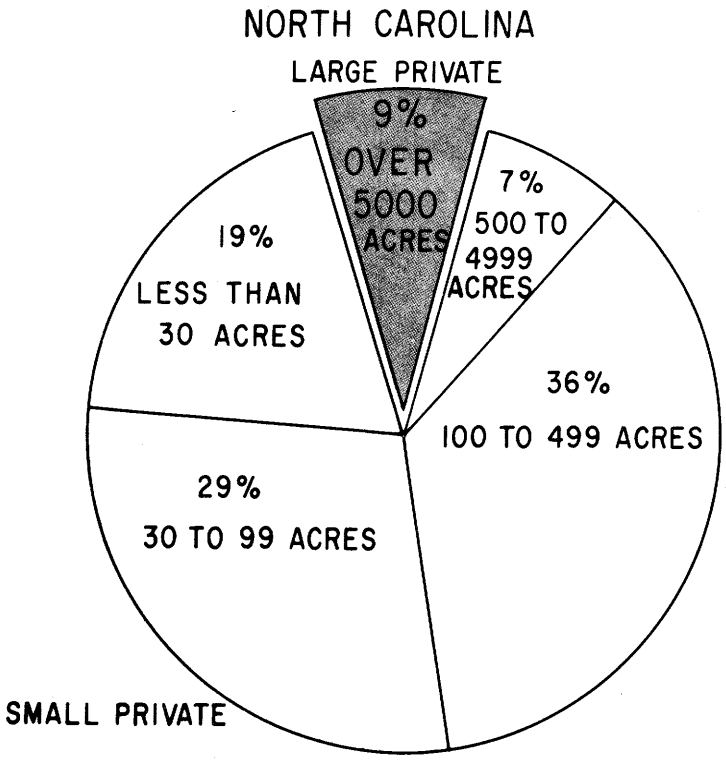

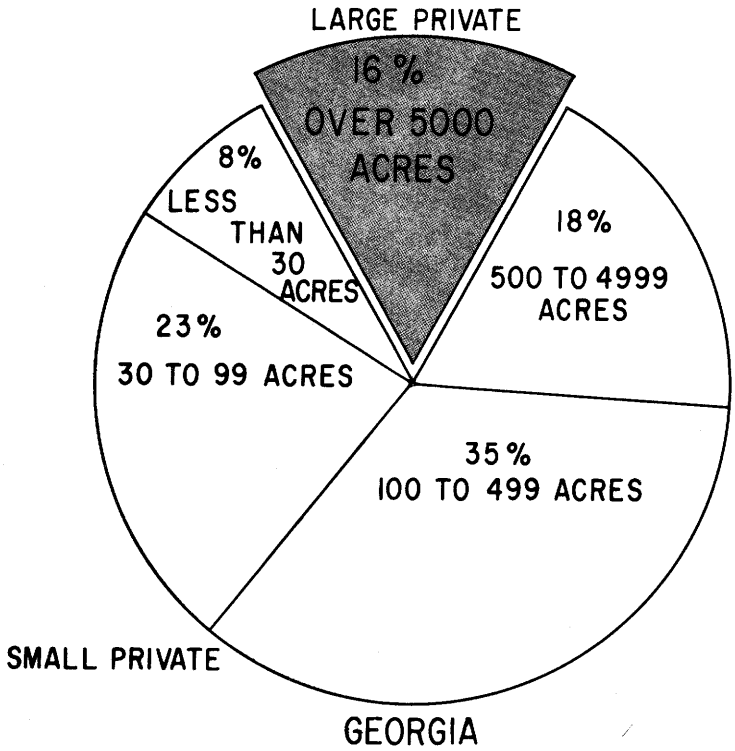

Over two-thirds of the commercial forest land is in private ownerships smaller than 500 acres. The largest area (one-third) is in properties between 100 and 500 acres, well above the marginal size for profitable management. Only a negligible portion is publicly owned.

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How can wood output from small forest ownerships be increased? This is the number-one problem facing American forestry today.

The problem is especially critical in the Southeast, where small owners hold more than three-quarters of the forest land and this land is in the poorest condition of any class of forest in the United States. Small ownerships are defined as forest properties under 5,000 acres.

Policymakers, industrial leaders, and alert citizens are asking, "Why is there such a difference between the productivity of these properties and that of medium and large holdings?" Although many factors would be involved in a full explanation, owner attitude is among the most important.

To find out what kinds of individuals are particularly interested in forestry and how they use their forest land, 100 owners were interviewed (fig. 1) and their woodlands examined in each of two study areas, one in the North Carolina Piedmont and the other in the Georgia Coastal Plain. Total acreage of the two areas is about the same. And although total acreage in forest is about the same too, forests are of greater economic importance in Georgia than in North Carolina.

Figure 1.--In each study area, 100 small forest landowners were interviewed to find out who these people are and what they are doing with their woodlands.

In the Georgia study area, the population is predominantly rural and farming is the major source of income. The farms are large and the farm families relatively prosperous, so there is scant need for off-farm work. There is, in fact, little industrial employment. The manufacturing plants are small (three-fourths have fewer than 20 employees) and they either make supplies farmers buy or process products farmers sell. Among the most common kinds of firms are lumber and other wood products plants, food processing plants, feed mills, fertilizer plants, cottonseed oil mills, and naval stores distilleries. The forest industries in this area of Georgia provide a large and diversified forest products market.

By comparison, the North Carolina segment is an urbanized and industrialized area. There are several times as many people per square mile, and most of them live in town or in nonfarm homes in the country. In this area with its large textile mills and other industries, much of the labor force works at jobs in manufacturing or trade. This includes many farm operators who supplement their agricultural incomes by working off their farms for a substantial part of each year.

These two areas represent extreme conditions with regard to forestry in the Southeast. In one, people depend on the land, including forests, for their income; in the other, their livelihood is divorced from the land. These segments were purposely picked for contrast. Whenever a situation is found that is common to both, the probability is high that it exists throughout the region.

WHO ARE THE LANDOWNERS?

They are farmers.--Half of the 24,000 North Carolina owners and two-thirds of the 11,000 Georgia owners farm either full time or part time. It is common for a man to have a job in town and still farm the homeplace. The remaining owners are professional persons and businessmen, wage earners and clerks, housewives, and retired people, with wage earners and clerks the most numerous of those in nonfarm occupations (fig. 2).

They are middle aged.--The average age of those in North Carolina is 53 years; the average age of those in Georgia is 57 years. Because of their age, half of all owners can expect to control their land for no more than another 15 years.

They have had their woodlands 18 years.--Typically, they became owners when they were in their late thirties, regardless of how they acquired their land.

They purchased their woodlands.--Few of them were primarily interested in forestry at the time they bought their holdings. Instead, they wanted a property for farming, residence, or some other nonforestry purpose, and the woodland was merely a part of the property they selected.

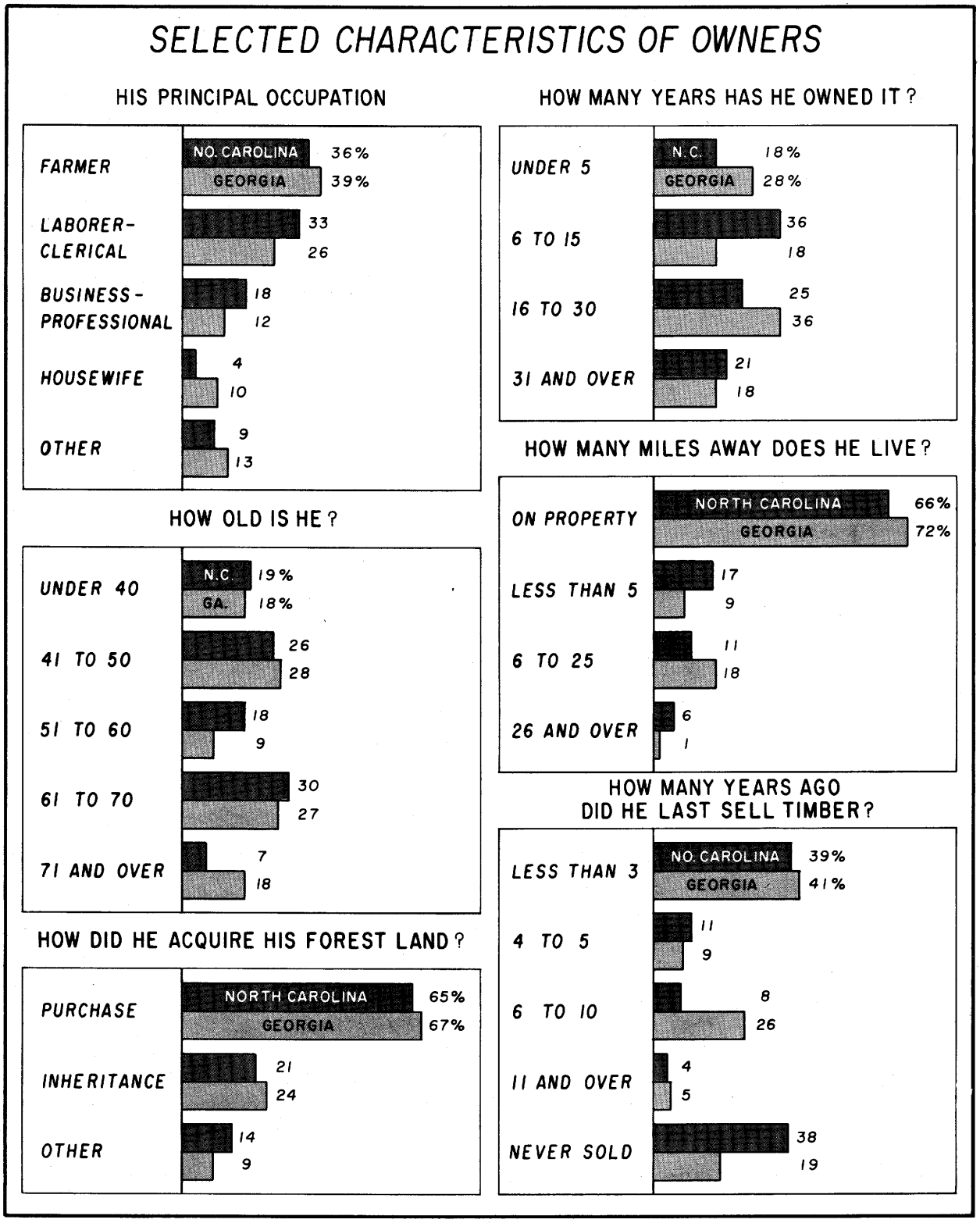

Figure 2.--There is little difference between the two areas in the characteristics of owners, except that many more of the Georgians have sold timber.

They live near their woodlands. --Few live so far away that they could not manage their woodlands if they wished. No serious absentee ownership problem exists, but some owners are functional absentees. One example is a man who lives on the property but obviously never visits his woodland. He thinks it is predominantly a low-grade oak forest, when actually it is made up of thrifty pine and yellow-poplar stands.

They have sold timber, but in an unbusinesslike way. --The few persons who have not sold generally lack timber to sell or will not sell for such reasons as: "My father never sold, and I don't intend to either;" "I want to leave something of value for my kids;" "I don't trust timber buyers." Most individuals who sold timber have sold it within the past few years. Although almost all sales were of stumpage, nine-tenths of the sellers either did not know how much they were selling or relied on the buyer's scale after the timber had already been cut.

WHAT ARE THEIR WOODLANDS LIKE?

They are on farms. --This is to be expected, since few woodlands were acquired specifically for their forest values. Not all of these farms (fig. 3) are farmer-owned, however. Many are owned by people in other occupations.

Woodland covers 40 percent of the property. --The proportion of woodland is generally less on farm than nonfarm properties. Among farms, the largest-size holdings have the greatest proportion of land in forest (fig. 4).

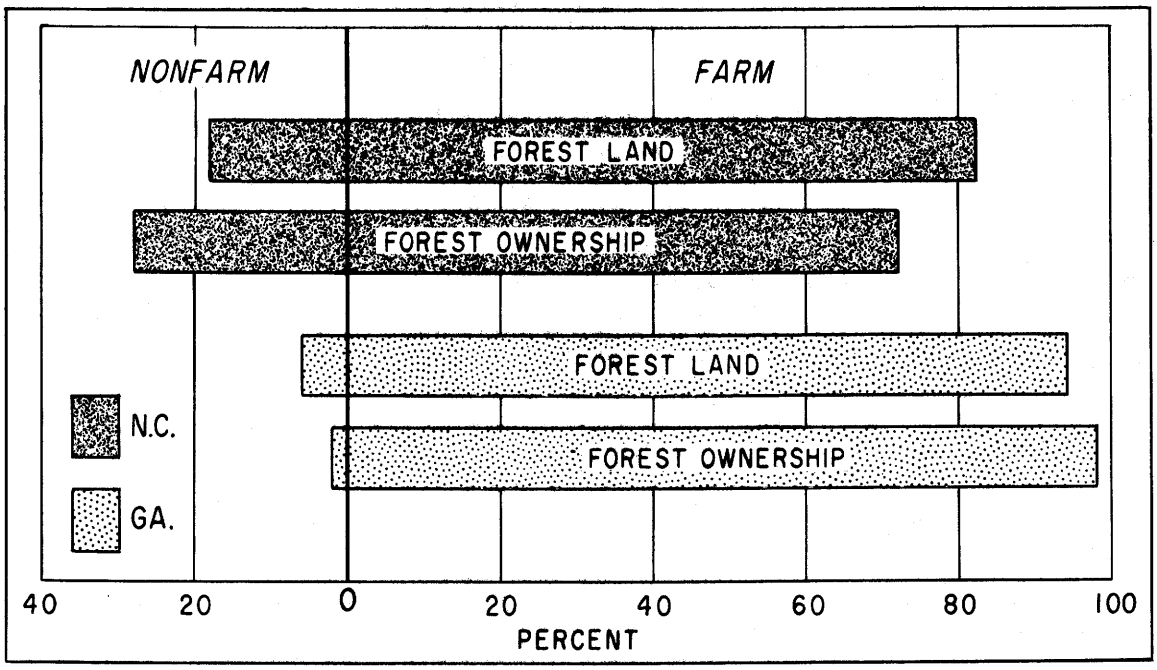

Figure 3. --The fact that most of the forest land and forest ownerships are on farm properties indicates that the small ownership problem is mainly a farm forest problem.

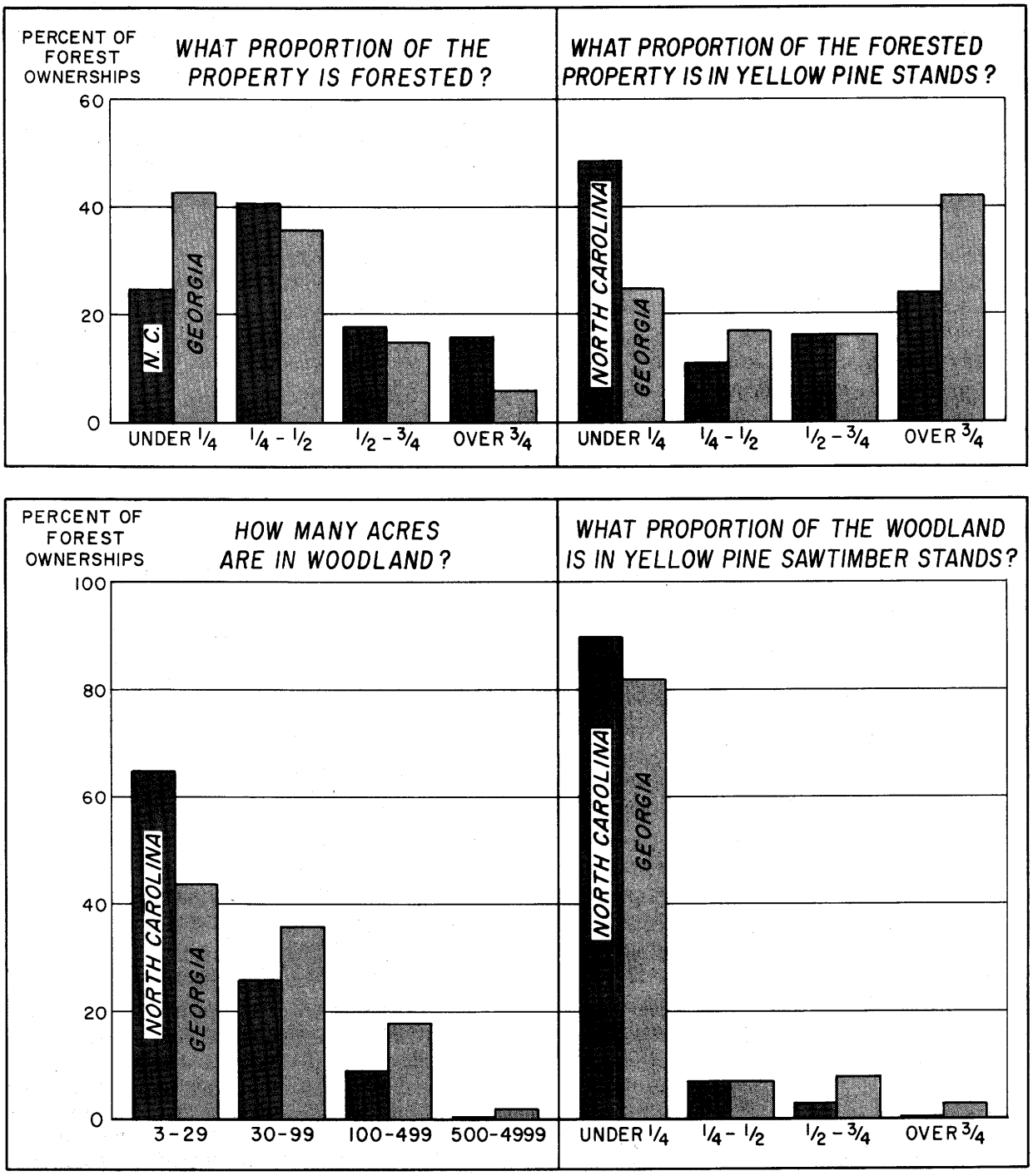

Figure 4. --Well over three-quarters of the woodlands are under 100 acres, and two-thirds of them cover less than half of the property. Where yellow pine stands are present they frequently occupy a large part of the woodland, but only rarely are they of sawtimber size.

Woodlands average 45 acres in North Carolina and 90 acres in Georgia.--Farm woodlands tend to be larger than nonfarm woodlands in North Carolina, while the reverse is true in Georgia. In both areas, the larger the woodland the less likely it is to be in one tract.

Half their area is in yellow pine type.--Yellow pine, of course, is the species of greatest value. But only 15 to 20 percent of the pine area is in sawtimber stands. The remainder is either in poletimber stands suitable only for pulpwood or in seedling and sapling stands not yet merchantable.

Most forest tracts appear worthy of investment.--True, a few are obviously too small for profitable operation, and a few more are clearly in such poor condition as to require costly stand conversion. Nevertheless, the majority of woodlands are large enough to justify management and consist of young stands of valuable species.

HOW DO THEY USE THEIR WOODLANDS?

They use them in a variety of ways.--Among those frequently mentioned are: timber growing, grazing, residence, recreation, mineral extraction, timber liquidation, and clearing for agriculture. Real estate speculation is an additional reason for holding woodland in North Carolina, and the production of gum for naval stores is a woodland use in Georgia. Most owners have some definite use for their woodland.

They are growing timber.--More individuals (40 percent) are devoting their woodlands primarily to this than to any other single purpose (fig. 5). Since, in general, these are the larger landowners, half of all small woodland acreage is dedicated to timber growing.

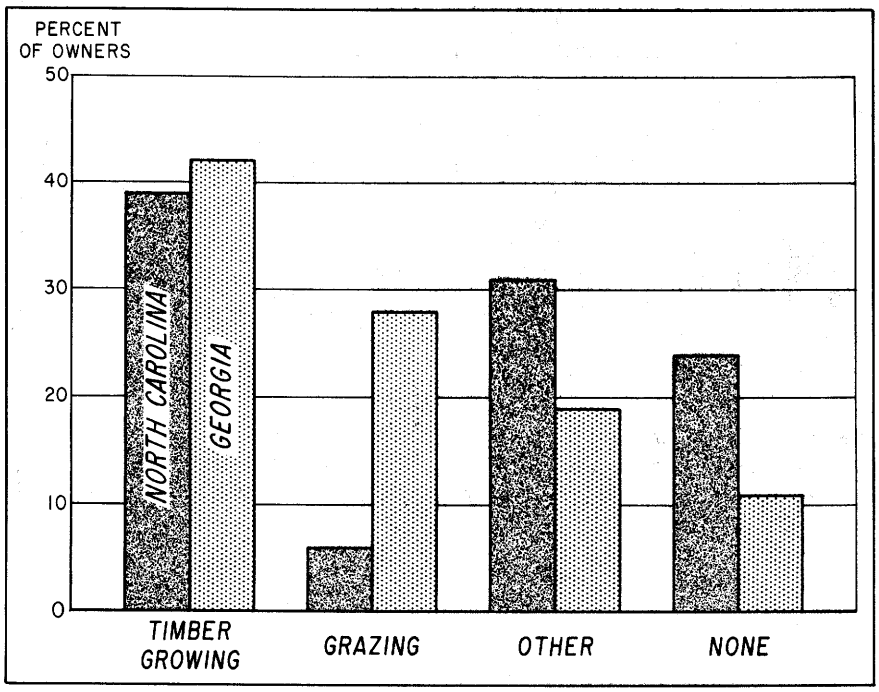

Figure 5.--More woodlands are used principally for timber growing than for any other purpose, although grazing is the main use of many Georgia woodlands.

They also graze their woodlands.--This includes many who are growing timber. Of course, some of these people restrict their cattle to a small part of their woodland or keep so few head that grazing is not heavy. This is truer of North Carolina than Georgia owners. The Georgians tend to accept the theory that woodland grazing benefits the timber by reducing the fire hazard. "Put cattle in your woods, but keep hogs out," advises one of them. His suggestion may be sound when applied to controlled light grazing in open pine stands on sandy coastal plain soils, but almost any prolonged grazing would be detrimental to timber production in the Piedmont, where soils are much more easily compacted.

DO THEY THINK FORESTRY WOULD BE PROFITABLE?

Half think it would.--Those who think so usually have timber cultural measures in mind, such as planting and timber stand improvement (fig. 6). Almost all North Carolina owners who consider forestry profitable mention only practices of this type. On the other hand, Georgians who think that forestry pays quite often include protection measures among the practices they believe are profitable. This difference of opinion may be accounted for by differences between the two study areas. The fact that woodland grazing is more widespread in the coastal plain makes owners in Georgia more aware of the need for fences. And because the incidence of fire is higher in the coastal plain, firelines around individual properties are also considered worthwhile in Georgia.

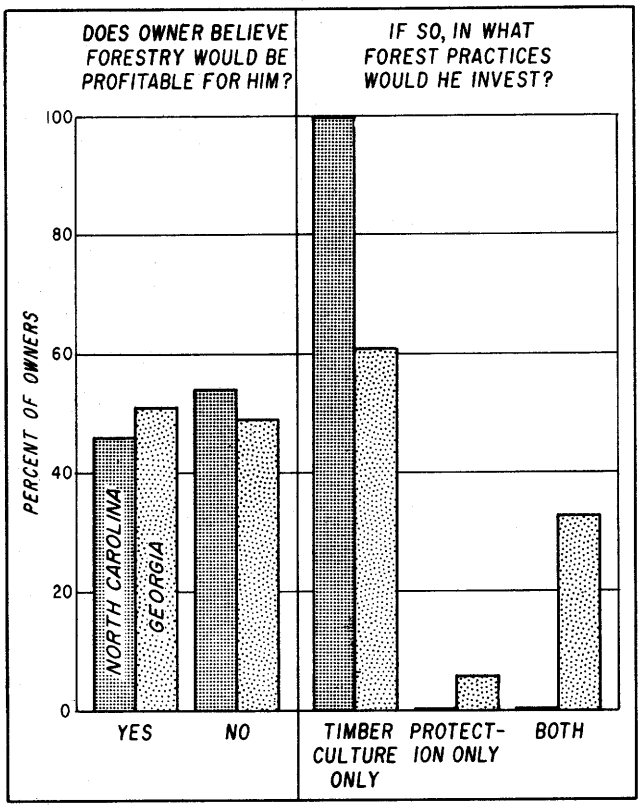

Figure 6.--Half of the owners think that forestry would be profitable. Of these, nearly all feel that timber cultural measures, such as planting or timber stand improvement, will pay. But only a few, mostly in Georgia, recognize that fences, firelines, and other protection measures are worthwhile.

The other half think it would not. --Some of the reasons they frequently give in support of their opinion are: "My woodland is much too small," "Nobody would ever buy the kind of timber I've got," "I'm too old to spend time or money in my woods because I won't live long enough to get any benefit from it," "I can't afford to wait for years until the trees are big enough to sell," "I just don't have the spare money to spend on forestry."

DO THEY PRACTICE FORESTRY?

More than a quarter do. --These might be called active timber growers (fig. 7) to distinguish them from those who merely let nature take its course. Because each owner was allowed to decide for himself whether or not he was a timber grower, some put themselves in this class merely because they refrain from cutting. As one of these owners explains, "I won't cut any more because I'm holding this timber for my two boys." Of course, nearly all owners who have practiced forestry consider themselves timber growers.

They have carried out only one practice. --Since forest management generally requires a series of successive, related practices, hardly any of these active timber growers can be said to be managing their woodlands. Only a few have carried out as many as two practices. And it is a rare individual who has undertaken three or more.

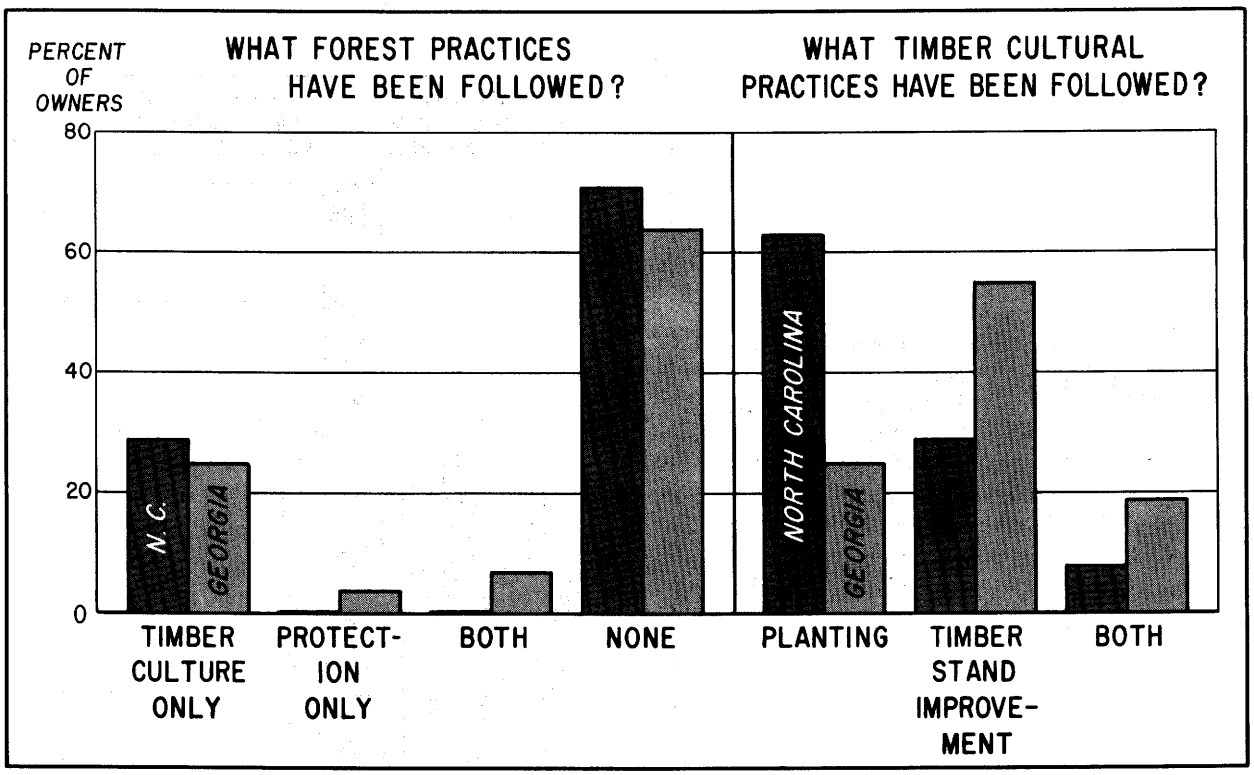

Figure 7. --Of the modest proportion of owners who practiced forestry, the majority in North Carolina planted and most in Georgia did timber stand improvement work.

They have done timber stand improvement work. --This is the practice most frequently reported in Georgia, where many owners did the work themselves. It quite often consisted of cutting worked-out turpentine trees, a job which can be done without professional guidance (fig. 8).

Actually, almost every woodland in both study areas that has been marked by a forester has been marked for timber stand improvement. Foresters apparently are used more often for timber marking than for any other specific purpose.

Although both public and private foresters are available to mark stands and give other technical assistance, many owners have not taken advantage of this service. Some state frankly that they do not know in what way a forester could help them. Others want forestry advice, but either do not know foresters' services are available or have been unable to locate them.

Figure 8. --Of the Georgia owners who practice forestry, most of them do timber stand improvement work such as removing worked-out turpentine trees.

They have planted trees.--This is the most popular practice in North Carolina (fig. 9) and the second most popular in Georgia.

Of course, tree planting is encouraged by public programs such as the one through which the State Forester distributes seedlings. He provides at least moderate quantities of seedlings, either free or at cost. The effectiveness of this program is indicated by the fact that most persons who purchase planting stock from private nurseries started planting with stock received through this public program. In addition, some forest industries also provide seedlings.

Another form of aid to stimulate tree planting is the system of incentive payments made through the Agricultural Conservation Program. ACP forestry payments are designed to encourage owners to carry out practices they might not otherwise perform, by having the Government absorb part of the cost. Even though there are several forest practices that qualify, nearly all ACP payments are for tree planting. Nevertheless, about four-fifths of the owners who planted are unfamiliar with this program and have not received any payments.

In both sample areas, the planting that has been done is on a minor scale (fig. 10). Georgia plantations average 26 acres, and North Carolina plantations only four acres. Seven percent of the forest acreage in Georgia is in plantations, and only two percent in North Carolina.

Figure 9. --In North Carolina, planting is the most popular forest practice, albeit the plantations are small.

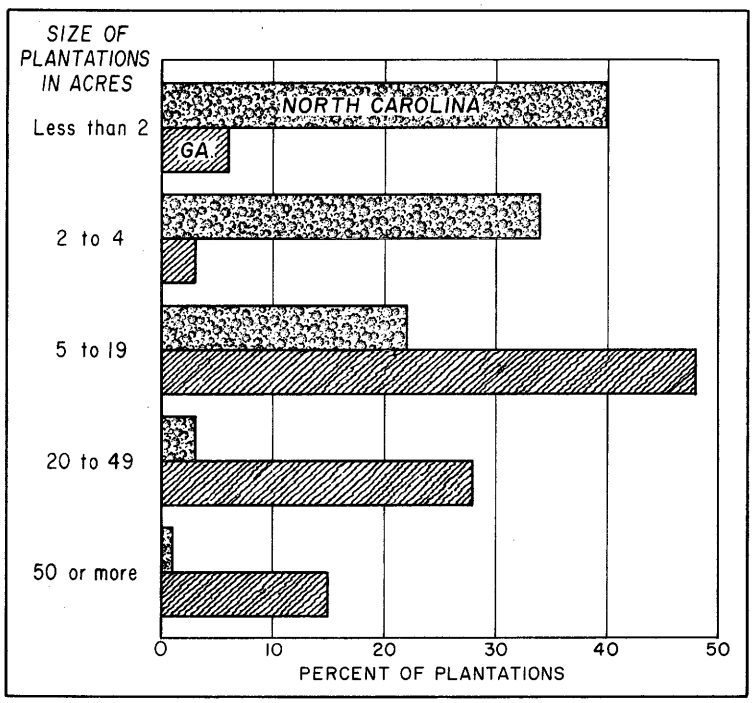

Figure 10. --Typically, forest plantations are small. This is especially true in North Carolina, where owners have only restricted areas that can be planted on their lesser-size properties.

Of course, there are many owners who have not planted at all. The most frequent explanation they give is, "I don't have any land that needs planting." Others say they are simply too busy with farm or other work to have time to plant. Still, some of these individuals would plant if they could find the labor to do it. Most, however, could not afford to employ the labor even if it could be hired. A number of the poorer owners say they would have planted had they known public assistance was available. But a few others, even though they cannot afford to plant without outside help, feel unsympathetic toward all public-aid programs or dislike the terms of the planting program.

WHICH OWNERS ARE MOST LIKELY TO PRACTICE FORESTRY?

Those with favorable attitudes have four characteristics in common: (1) they are young, (2) they have much of their property in forest, (3) they have a relatively large woodland, and (4) they sold timber recently.[1]

The younger ones.--Young people are naturally more in favor of forestry. "If I were a young man," is a frequent preface to remarks by older owners who think forestry is a good investment for someone else. Also, the younger own-

1/ These four variables were found significant for segregating owners according to attitude when tested by means of discriminant function analysis. This is a method of separating individuals or items into two classes, those with a particular attribute and those without it, on the basis of other characteristics. When tested by the same method, area in yellow pine type, area in yellow pine sawtimber stands, and percent of forest in yellow pine sawtimber stands were nonsignificant. Other factors, including distance from the owner's residence to the woodland, length of tenure, age at the time the woodland was acquired, and proportion of the woodland in yellow pine type, showed no relationship with owner attitude when examined by use of tabular comparisons and, therefore, did not appear to warrant a statistical test.

ers are more knowledgeable about forestry. This came about because it was not until after the end of World War II that strong, widespread efforts were made to promote forestry training at high schools, in veterans' classes, and for Future Farmers of America. Thus, it has reached many of the younger owners, but missed most of the older ones.

In Georgia, younger owners are more likely to be growing timber, willing to practice forestry, and practicing forestry than are older ones.2/ The chance that an individual is growing timber, as related to his age, is indicated in figure 11. The probability that an owner is willing to practice forestry is shown, by age, in figure 12. The likelihood that persons in various age classes are practicing forestry appears in figure 13.

Those who have a greater-than-average proportion of their holdings in forest land.--Especially on farms the larger the woodland relative to land in other uses, the more value this asset generally has to the owner and the higher his interest in it.

A woodland that occupies a large percent of the property may be of greater importance to its owner where agricultural land is poor than where

2/ The same probably holds true in North Carolina, but because younger owners tend to have smaller ownerships, or for other reasons, the analysis did not show it.

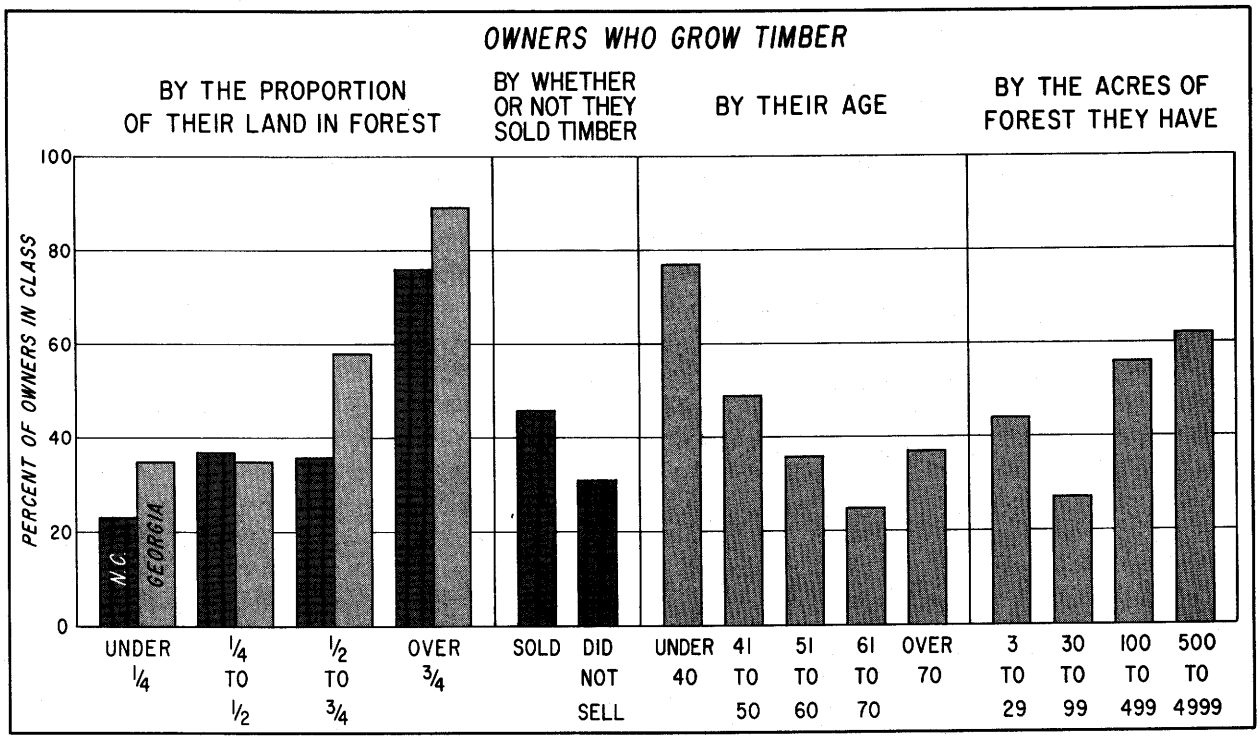

Figure 11.--Owners most likely to be growing timber in both North Carolina and Georgia are those with the greatest proportion of their property forested. In North Carolina, there is a better chance that an individual is growing timber if he made a timber sale recently. In Georgia, the percent of persons growing timber is higher among younger owners and among those with the largest forest ownerships.

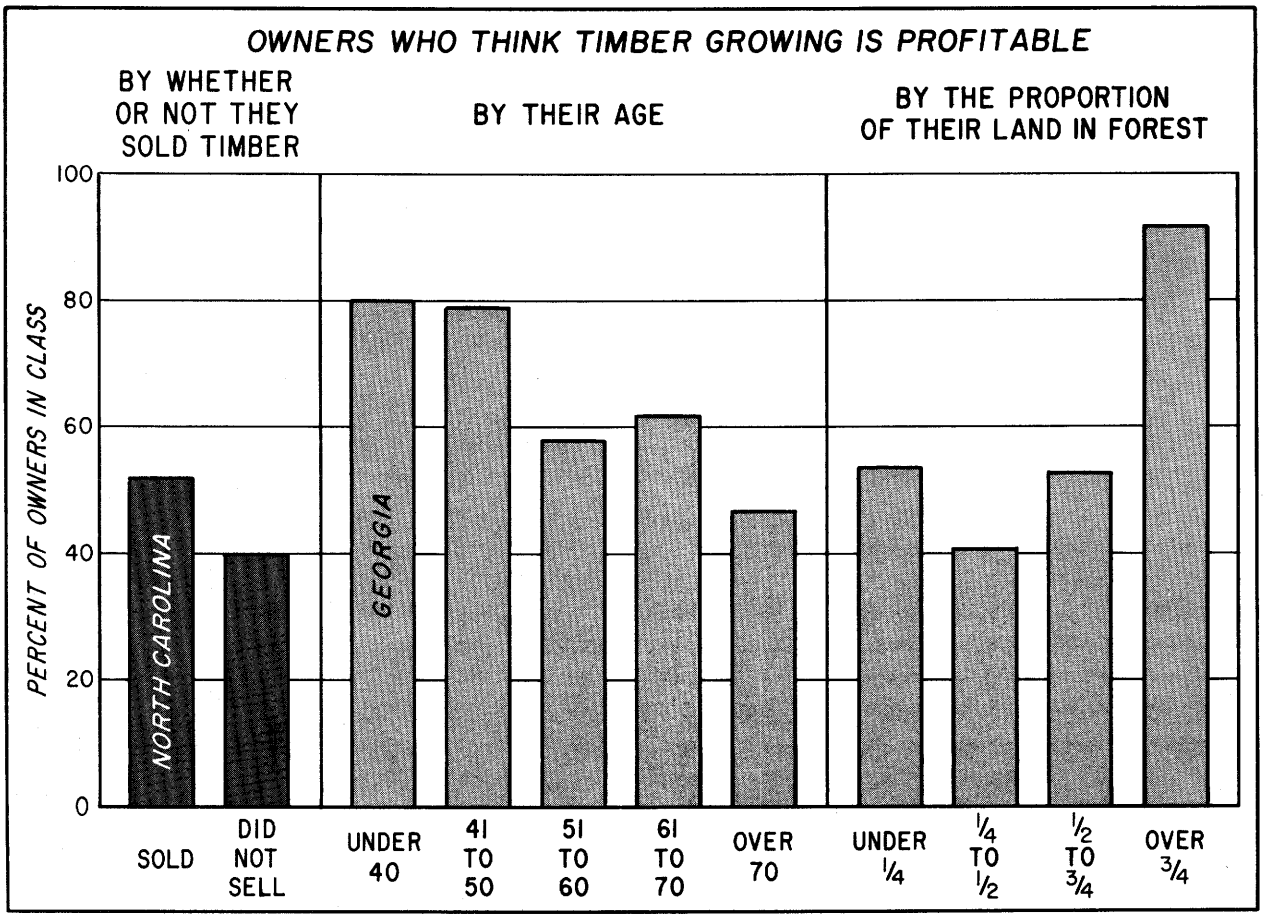

Figure 12. --The percentage of owners who think forestry would be profitable for them is highest in North Carolina among those who sold timber recently. In Georgia, on the other hand, it is highest among younger individuals and those with the greatest proportion of their property in forest.

it is fertile. This is the opinion of an owner living in such an area. He has a 450-acre farm, two-thirds of which is forested. "My farm hasn't produced a decent living for the past several years," he says, "so I've had to look to my woods." In this way he has been able to supplement his low agricultural income.

In both study areas there is a tendency for those with the greatest proportion of land in forest to consider themselves timber growers (fig. 11). Furthermore, in Georgia, these same owners are the most likely to think that forestry is profitable, and also to be practicing forestry (figures 12 and 13).

Those who have woodlands that are larger than average. --Owners are acutely aware of the economic importance of woodland size. Those with very small properties frequently make comments such as, "I don't own enough woodland to fool with." And even those whose forest acreage is about average feel that they haven't enough land to make forestry worthwhile.

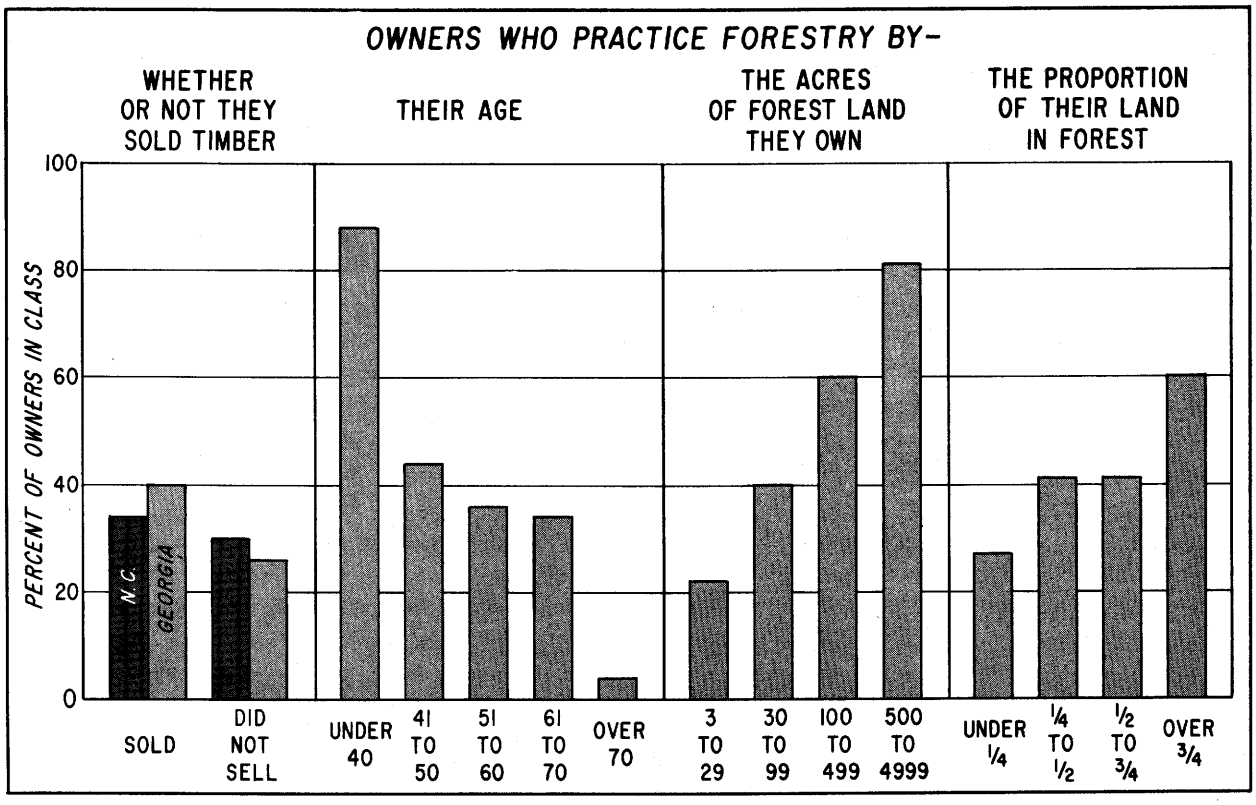

Figure 13.--In both North Carolina and Georgia, owners who recently sold timber showed a greater tendency to practice forestry than those who have not made a recent sale. In Georgia, owners more likely to practice forestry were the younger people, those with the largest forest ownerships, and those with the greatest proportion of property in forest.

In addition to having a forest enterprise of adequate size, the owner of a large forest property may actually have more wealth. The largest forest ownerships are frequently held by business and professional people and the more prosperous farmers, while the smallest properties are often in the hands of wage earners and clerks. To the extent this is the case, the largest landowners undoubtedly have more capital to invest and are under less pressure to cut prematurely.

In Georgia, those who own the greatest acreage of forest land are the most likely to be growing timber and practicing forestry (figures 11 and 13). This is not true in North Carolina. Here, ownerships are smaller and less variable in size, which may account for the difference.

Those who sold timber recently.--In North Carolina, those who sold timber during the past ten years are usually the ones who are growing timber, who think it would be profitable for them to practice forestry, and who are practicing forestry (figures 11, 12, and 13). In Georgia, too, it is the timber sellers who are practicing forestry (fig. 12).

The fact they have sold timber may cause some owners to classify themselves as timber growers. Earning a return from their woods may make others think that forestry is profitable, and encourage still others to invest in forestry. Possibly, the act of selling timber not only helps these individuals realize that forestry is profitable, but also provides them with capital to invest.

Another way in which making a timber sale may influence owner attitude is by bringing the seller into contact with forestry-minded people. This is one way, for example, in which owners learn about public programs.

WHAT THIS SURVEY SHOWS

Interest in forestry appears to be associated with certain personal characteristics of the owners and the attributes of their woodlands. These are: (1) the age of the owner, (2) the proportion of his land that is forested, (3) the size of his woodland, and (4) the fact he has or has not sold timber.

Perhaps these findings could be utilized in attacking the small-forest-landowner problem. This could be done by concentrating forestry educational and assistance efforts on those persons who would probably respond favorably. Any of the above four characteristics would serve to identify such individuals. However, the factor, "sold timber recently," may be the best one to use, since in both study areas it indicates those persons most likely to be practicing forestry.

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