Historic, archived document

Do not assume content reflects current
scientific knowledge, policies, or practices.

1.9622
C3T222
Cop. 3

THE SMALL WOODLAND OWNER IN OHIO

O. Keith Hutchison
Orris D. McCauley

U. S. DEPARTMENT OF AGRICULTURE - FOREST SERVICE

CENTRAL STATES FOREST EXPERIMENT STATION - TECHNICAL PAPER 183

● THE AUTHORS

O. KEITH HUTCHISON worked at the Central States Station for 12 years, transferring to the Forest Service's Alaska Research Center in 1959. He is a forestry graduate of Oregon State University and has a Master's degree in Agricultural Economics from Ohio State University. During his sojourn at Central States, Keith authored or co-authored several publications on forest survey techniques and forest resource analysis including major reports on the forests of Kentucky, Indiana, and Ohio.

ORRIS D. McCAULEY began his Forest Service career at the Central States Station in 1956. He has studied forestry, botany, and biology at West Virginia, Indiana, and Capital Universities. And he holds a Master's degree in Agricultural Economics from Ohio State University. His specialty is marketing research and he has authored several publications in that field in the past 5 years.

Central States Forest Experiment Station, U.S. Dept. of Agriculture
Forest Service, 111 Old Federal Building, Columbus 15, Ohio
R. D. Lane, Director

THE SMALL WOODLAND OWNER IN OHIO

O. Keith Hutchison
Orris D. McCauley

U.S.D.A., NAL

JUN 25 2008

CATALOGING PREP

More than 90 percent of the forest land in the Central States is in small, privately owned tracts held by some 150,000 owners¹. So the future of forestry in this region depends a great deal upon the ideas, plans, attitudes, and whims of these private forest owners. Who are they? What are they doing with their forest land, and why?

In an attempt to answer these questions and to establish guides for future forestry programs, an exploratory survey was made recently in the corn belt and in the southeastern hills of Ohio. In randomly selected parts of the study areas, all owners of more than 3 acres and less than 5,000 acres of forest land were contacted. In all, 96 owners in the corn belt counties and 70 in the hill counties were interviewed regarding their attitudes toward their woods.

Hardin and Union Counties were selected for study in the corn belt region of Ohio (fig. 1). Most rural residents of this area are farmers. Average gross income per farm from the sale of farm products was slightly less than \$7,000 in 1954². More than 90 percent of the 523,000-acre land area in these counties is in farms; slightly more than 7 percent (42,000 acres) is wooded (fig. 2)³.

According to the 1954 Census of Agriculture, about 57 percent of the farmers in these counties owned woodlands averaging about 20 acres per farm; none had more than 100 acres of forest land. The Forest Survey for 1952 reported that the forests in these counties contain about 178 million board feet of saw-timber with an average volume of 4,200 board feet per acre. This is well above the State average of 2,600 board feet per acre.

Most forest land in the corn belt counties is valued on the basis of its potential for producing farm crops other than timber. It sells along with the rest of the farm at \$150 to \$300 per acre.

¹Hutchison, O. Keith and Thornton, Phillip L. Central states timber resources. U.S. Dept. Agr., Forest Serv., Cent. States Forest Expt. Sta. Misc. Release 13, 30 pp., illus. 1957.

²U.S. Bureau of Census. Counties and state economic area, Ohio (Vol. 1, Part 3), U.S. Census of Agr., 1954, 270 pp. 1956.

³Hutchison, O. Keith and Morgan, James T. Ohio's forests and wood-using industries. U.S. Dept. Agr., Forest Serv., Cent. States Forest Expt. Sta., Forest Survey Release 19, 40 pp., illus. 1956.

Figure 1. — The study was made in two counties of each of the two geographic regions of Ohio.

The study area in the hill country of southeastern Ohio is in eastern Ross County and western Vinton County. There, about 50 percent of the land is farmed and income is low. Average gross income from the sale of farm products in Vinton County was only \$1,173 per farm in 1954². The 1954 Census of Agriculture shows 344,000 acres of forest land in the two sample counties, about half the total land area (fig. 3)³. Of this, farmers own 131,000 acres of forest land; various public agencies own 50,000 acres; and coal companies, wood-using industries, and other private individuals own 163,000 acres. Individual tracts averaged larger in the hill country (fig. 4). Here 78 percent of the total forest land was in parcels of 100 acres or more. These two counties have about 817 million board feet of sawtimber with an average volume of 2,400 board feet per acre. This is slightly less than the State average and only slightly more than half the volume per acre found in Union and Hardin Counties.

Most forest land in the hill counties is not good farmland and usually sells for \$15 to \$25 per acre. The forests of the hill counties have been cut more intensively than forests in the corn belt. Consequently, the hill county forests have less sawtimber per acre. Some tracts in both areas have no timber of value on them. In the hill counties timber value ranges up to about \$75 per acre while in the corn belt counties the value ranges up to about \$300 per acre (fig. 5).

Oak-hickory forests predominate in both areas. Oak, ash, and elm are the most important commercial tree species in the corn belt; oak and yellow-poplar in the hill country.

Figure 2.—Aerial view of typical woodlands in the corn belt.

Figure 3.—Aerial view of a typical forest area in the hill country.

Figure 4.—Distribution of forest tracts by size and region.

Figure 5.—Value of timber by region.

Profile of the Owner

In both areas, about 70 percent of the forest land is held by owners who are at least 50 years old (fig. 6). Age seemed to influence owners' attitude toward their forest land: most of the older people indicated that they couldn't hope to realize any returns from growing timber. Some owners commented, "It takes too long to grow trees."

Farmers own about 62 percent of the forest land in the corn belt, but only 17 percent in the hill country. In the hill country, laborers are an important group in terms of number of owners, but hold only 9 percent of the forest land. Many of these people bought wooded land just as a place to live. Business and professional people hold land as an investment as well as for residence (fig. 7).

Most owners had held their land from 10 to 24 years; average tenure was 17 years (fig. 8). Tenure, however, seemed to have little effect on the owners' inclination to manage their woodlands for timber production. New owners were as much inclined to practice forestry as the owners of longer tenure.

Eight out of ten owners live within 10 miles of their forest land. Most of the rest live within 100 miles; less than 2 percent live further than 100 miles. The farther an owner lived from his forest land the less attention he paid to it.

Figure 6. — Age of forest owners.

Figure 7.—Distribution of forest land by owner-occupation and region.

Figure 8.—Tenure of forest owners.

Motives for Ownership

Two-thirds of the forest land was acquired because it happened to be on land bought for farming. Thirteen percent of the forest land was inherited and 20 percent acquired through a combination of inheritance and purchase from other heirs. Some of the owners had bought their land at tax delinquent sales. Only one owner (in the corn belt) bought his farm because it had a woodland.

In the hill counties 76 percent of the forest owners in the sample were holding their land primarily for growing timber (table 1). The comparable figure in the corn belt counties was only 25 percent.

Table 1. — REASONS FOR OWNING FOREST LAND

Intended use	Percent of owners	
	Hill country	Corn belt
Timber growing	76	25
Liquidation	0	10
Recreation	3	3
Residence	14	0
Grazing	0	49
Minerals	4	0
Other	3	13

Holding the land for timber growing does not always mean that the owner is actively managing his forest. Many feel they are growing timber when their forest land is not devoted to another use. Others are growing timber because the land is not suited to any other use. "Growing timber" apparently means letting nature take its course. Some are growing timber for their own farm use rather than as a commercial undertaking. One owner said she was holding her inherited land because her father told her that land was a good investment and an "insurance policy."

Apparently size doesn't make much difference in owners' attitude toward forest management: owners with small tracts were as much inclined to grow timber as were the owners of large tracts.

Forestry Practices

Sixty percent of the owners in the corn belt who are holding their land for timber production actually did some improvement work, as compared with about 51 percent in southeast Ohio. On the other hand, the percentage of all owners practicing some forestry was higher in the hill country than in the corn belt (table 2).

Very few owners in either area use services of a technical forester. Most of those using such service were satisfied and would use it again. Of those who have not, however, 51 percent in the corn belt were not interested compared with only 5 percent in the hill area. In the hill counties, 28 percent of those not using professional services did not know they were available; the comparable figure in the corn belt counties is 11 percent. More owners in the hill counties professed to be familiar with forestry principles than in the corn belt counties.

Much of the forest land is grazed in the corn belt counties, but very little grazing is done in the hill area. Owners who run cattle in their woodlands feel that this is one way to get a little income from the forest. Some have even opened up their stands to get more grass.

There was a little more interest in planting in the hill area than in the corn belt, but even in the hill area only 11 percent had planted trees. More than one-third of the owners who have not planted in both areas lack plantable land. Only 4 percent of the owners in the corn belt counties were unaware that they could obtain assistance to plant trees, but in the hill counties 22 percent were uninformed. Fourteen percent of the owners in the corn belt counties and 19 percent in the hill country indicated they did not have time to plant.

Table 2. — FOREST MANAGEMENT PERFORMED

Operation	Percent of owners	
	Hill country	Corn belt
Protection only	7	5
Timber stand improvement and selective harvesting only	5	0
Timber stand improvement, selective harvesting, and planting only	20	8
Timber stand improvement, selective harvesting, planting, and protection	7	6
	39	19

Financial Considerations

None of the owners in either area had participated in the cost-sharing forestry program provided by the Agricultural Conservation Program of the Department of Agriculture. In the corn belt counties 42 percent of the owners were not interested, 29 percent were not aware of the program, and 9 percent lacked time to participate. In the hill counties only 9 percent of the owners were not interested, 53 percent were not aware of the program, and 23 percent were too busy.

Many owners in the corn belt area were not interested because they would have to fence the livestock out of the woodlands. This also applies to many owners who did not know that cost sharing for forestry practices was available. When informed of the ACP program, they often replied that they wouldn't be interested because they preferred to use the woodland for pasture.

Although only one owner in the two study areas ever tried to borrow money on the security of his forest land, most owners assumed that forest land could be used as security for a loan. (Actually very few loan agencies in Ohio will accept forest land or a timber stand as security.) Similarly, only two owners ever tried to insure their timber but most owners supposed that they could insure timber if they wanted to. Usually owners said their timber wasn't worth insuring or that danger of loss was so little that insurance wasn't needed.

None of the owners in either study area had ever had any experience in long-term forest management leases, and most owners in both areas were not interested, perhaps because the idea was new to them. About one-fourth of the owners said that they would like to consider a long-term management lease.

Taxes seem to influence forest land use more in the corn belt counties than in the hill counties. Almost one-fifth of the owners in the corn belt said that taxes did affect their plans for using the woodland area, whereas less than 3 percent of the owners were influenced by taxes in the hill counties. The difference in attitude towards taxes probably reflects the difference in land values between the two areas.

Many farmers in the corn belt claim that they do not convert their woods to farmland because conversion costs more than buying additional farmland. They estimate that clearing and draining a typical woods would cost \$200 to \$300 per acre whereas they can buy cleared farmland for \$150 to \$300 per acre.

None of the owners in either area could estimate the value of his timber. Therefore value estimates are based on measured volume in each woodland and the current local prices paid for standing timber in each area. Sawtimber was assigned a value of \$30 per thousand board feet in the corn belt; cordwood was not given a value because this area lacks cordwood markets.

For the hill area, sawtimber was valued at \$10 per thousand board feet and cordwood at \$2 per cord because of the local pulpwood market. On this basis stand values ranged from less than \$25 to nearly \$300 per acre in the corn belt and from less than \$10 to about \$75 per acre in the hill area.

Although owners could not readily place a value on their timber, there was a good correlation between the owners' declared intent to use the land to grow timber and the value of the stands. In the corn belt area, if the timber had a value of \$25 per acre, about 6 percent of the owners stated that their objective was to grow timber. In contrast, if the timber was worth \$200 an acre, about 50 percent of the owners stated they were growing timber (fig. 9).

Most landowners in the hill country are content to devote their forest land to growing timber. The extent of this preference, however, is influenced by the value of the timber. Only two-thirds of the owners whose trees were valued at \$5 per acre are primarily interested in growing timber while 95 percent of those whose timber is worth \$60 per acre selected forestry as a primary land use.

Figure 9. — Relationship of stand value to owners' declared intent to grow timber.

Summary and Conclusions

The Hill Country

Forest land owners in the hill counties are interested in forestry. One reason for this is that wood-using markets are active in the hill region. Owners can sell small and low-quality timber as well as high-quality sawlogs. Pasturing of woodlands is not important to these owners. And because of the low value of the land, the owners do not feel so much pressure to obtain an immediate return. Hence, there is a good opportunity to carry out a successful forestry program in this area where few alternative land-use opportunities exist. Moreover, forest acreage in the hill area is likely to increase because farmland is being abandoned and allowed to revert to trees.

Many owners in the hill area who indicate that they are holding the land to grow timber, are just letting the stands grow without benefit of any silvicultural treatment. It is generally conceded that better management of these stands could at least double growth and increase quality.

Ownership of the forest land by individuals, corporations, or cooperative organizations who will practice forestry should be encouraged. To do this, forestry programs need to be strengthened in the hill area. Too many owners are unaware of the programs and services available to them. Much of this land is held by owners who are willing to sell if they could retain mineral rights and home sites.

Many owners feel that forestry does not pay. An educational and demonstrational program is needed to combat this belief. In many cases owners feel that forestry would not pay them because of the time required to get results. Methods of overcoming the cost of waiting for individuals need to be studied. Development of new markets and efficient harvesting and marketing methods would help owners get earlier and greater returns from their forests.

While interest expressed in long-term management service was not great, it seems sufficient to warrant further study. Some of the lack of interest may be attributed to the newness of the idea. The results of this study indicate owners need an explicit lease arrangement to consider and time to discuss it among themselves in order to give positive answers to questions regarding long-term leases.

In light of the present situation, what impact will owner attitudes and present forest conditions in the hill country have on Ohio's contribution to the nation's future timber resource?

Present trends indicate an increase in wood supply. Each new inventory indicates that more farmland is reverting to forest. Also, more private forest owners are taking advantage of ACP cost sharing each year. Surveys have indicated that total growth has increased and that it now exceeds the annual cut. However, the problem of small-diameter and low-quality timber still plagues the wood-using industry.

The Corn Belt Counties

In general, owners of woodlands in the corn belt area are not interested in forestry. They have other uses for the land and are under economic pressure to increase the efficiency of their farming operations.

It is evident that forest land in the corn belt area is gradually being converted to other uses. The 1954 Census of Agriculture shows that in the 5-year period

1949 to 1954, the farm forest area has been reduced by 6,600 acres in Hardin and Union Counties. This indicates a reduction rate of 2.5 percent annually.

In this study area 10 percent of the owners are planning to clear their forest land to increase cropland and pasture. Right now, half of the forest land in the sample area is being pastured, much of it to the detriment of tree growth.

The scattered woodlands in the corn belt are contributing less and less raw material to wood-using industries. Demand for cropland and for home sites can be expected to increase and thereby reduce the area and importance of small woodlands as a source of wood products. However, these small woodlands will continue to furnish some high-value products, such as veneer logs, for many years to come.

Forestry programs in this area should seek to make owners aware of opportunities that exist for profitable multiple-use woodland management, and assistance should be available to those who ask for it. Also, studies of the consequences of complete removal of timber should be made. Certain intangible benefits such as personal enjoyment, may induce owners to save some woodland areas and to establish plantations to take the place of the woodlands they expect to clear.

The Central States Forest Experiment Station is headquartered at Columbus, Ohio and maintains major field offices at:

Ames, Iowa (in cooperation with Iowa State University)

Athens, Ohio (in cooperation with Ohio University)

Bedford, Indiana

Berea, Kentucky (in cooperation with Berea College)

Carbondale, Illinois (in cooperation with Southern Illinois University)

Columbia, Missouri (in cooperation with the University of Missouri)