Why Nonindustrial Forest Landowners Do Not Invest in Pine Reforestation

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The results of a survey of southern, nonindustrial, private forest landowners on why their lands were not reforested to pine are reported. The most important barrier to pine reforestation was the inaccurate assumption by many landowners that adequate pine regeneration would occur naturally.

To insure a fully stocked pine stand in the South, it is generally necessary for landowners to do some sort of site preparation and reforestation activity. The practice of cutting without special regeneration measures often results in an understocked stand of pine or low-value hardwood. Since the early 1960's, however, few of the 1.5 million acres of pineland harvested annually in the South by nonindustrial, private owners have been adequately reforested with pine (*1*).

To find out why southern landowners are not investing in southern pine reforestation, 759 personal interviews were conducted in the southern pine region of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and the eastern parts of Oklahoma and Texas (2). The sample used in the survey was derived from the one used by the U.S. Department of Agriculture Statistical Reporting Service, for its 1981 June Enumerative Survey. This is the main survey from which the U.S. Department of Agriculture produces its estimates of agricultural production and is based on a field canvass of a sample of 1- to 2-mile-square blocks of land. In the South, a significant portion of the land within these blocks is forested. During this survey, enumerators in the 12 Southern States were asked to identify tracts within the sample units on which timber had been harvested in the preceding decade. The enumerators then conducted personal interviews with these landowners between August and October 1981.

Survey Results

The survey of harvested ownerships showed that 64 percent of the land harvested in the South was left to reforest itself. The lack of pine reforestation efforts among southern timber owners can be attributed largely to their abiding faith that cutover sites will naturally reforest themselves (table 1). On about 4 out of 5 acres in the South that were not actively reforested by planting pine seedlings or preparing the site for natural regeneration, the owners felt that their site would reforest itself.

Other important reasons for not reforesting were: high costs, 51 percent of the acres; returns from forestry occurring too far in the future, 43 percent of the acres; other uses for harvesting revenues, 40 percent of the acres; and returns from forestry being too low, 34 percent of the acres. While these reasons were offered far less frequently than relying on natural reforestation, they are nonetheless important because they highlight the extent to which several very basic problems in nonindustrial, private forestry play a role in landowner decisions. Reforestation costs can run as high as $200 per acre on cutover lands. Average reforestation costs on harvested pinelands range from $75 to $150 (*3*). This represents a cost to landowners that they may view as prohibitive. As shown in table 1, over half of all lands harvested are held by landowners who see the costs of reforestation as being too high. Compounding the problem of high costs are the alternative uses of timber harvesting revenues. High alternative rates of return are important to the owners of 2 out of 5 acres in the South. This suggests that forestry investments, while profitable on many sites, may not be perceived by landowners as the most attractive use of their harvesting revenues.

The potential returns to forestry investments have been estimated at 4 percent or greater, after inflation, on over 100 million acres of southern forest land (*4*). However, over 1/3 of the harvested forest land in the South is owned by individuals who believe returns from forestry investments are too low. Fully 43 percent of the acres are owned by individuals who do not invest because returns occur too far in the future. These economic and financial constraints on forestry management represent a second major challenge to observers of reforestation. Assuming the need to reforest was established in the minds of landowners,

Table 1.—*Landowners' reasons for not actively reforesting tract to pine by degree of importance*[1]

Reasons for not reforesting	Importance					
	High effect	Moderate effect	Low effect	No effect	Not aware of program	Total
	-% of acres					
Could not get cost-sharing.	4	5	16	52	23	100
Land is not sufficiently productive for pine.	5	7	19	69	0	100
Return on reforestation investment occurs too far in the future.	15	28	24	33	0	100
Return on reforestation investment is too low.	9	25	30	36	0	100
Have not yet decided the future use of land.	10	11	13	66	0	100
Investment in reforestation is too risky because of fire, insects, and disease.	1	1	27	71	0	100
Had other use for harvest revenues.	22	18	13	47	0	100
Reforestation costs too much.	30	21	16	33	0	100
Too much red tape in obtaining technical or cost-sharing assistance.	11	16	16	42	15	100
Felt the site would reforest to pine naturally.	60	19	5	16	0	100
Logging treatment when timber was harvested left site in such poor condition that it made reforestation with pine difficult.	2	8	27	63	0	100

[1]Asked only respondents who left site to reforest itself after clearcutting and partial cutting.

would those owners elect to spend money on forestry? The data from this study show that a combination of high costs and low or delayed returns is a significant obstacle to the reforestation of pine.

Factors of lesser importance to reforestation decisions were the poor productivity of land; risks associated with fires, insects, and disease; the poor condition of the site following harvest; too much difficulty in getting technical assistance; the lack of cost-sharing; and indecision about the future uses of the site. Site productivity and site condition following harvesting were important to the owners of only 12 percent of the land harvested, and only 2 percent of the land is held by individuals who view risks from natural hazards as being too high. A larger, although modest, proportion of the acreage, 21 percent, was held by owners who had not decided the future use of their land. A still larger proportion, 27 percent, of the acres harvested was owned by individuals who consider the "red tape" associated with getting assistance on forest management as being too cumbersome. Finally, only 9 percent of the acres were held by individuals who saw the absence of cost-sharing funds as a difficulty. It should be noted, however, that almost 1 harvested acre in 4 is owned by someone who is unaware that cost-sharing is available. The combination of these minor factors points to the complexity of reasons that underlie the decisions not to reforest cutover forest land in the South.

Conclusion

The widespread perception that natural pine reforestation occurs on harvested lands raises important issues with respect to landowner decisions. Forest Service forest inventory data show that the acres of southern forest land growing pine have begun to decline in the past decade, following the extensive rotation of retired cropland to pine between 1915 and 1965 (*1, 4*). Abandoned farmland reseeds to pine with relative ease, but cutover land does not. As a rule, harvested lands require treatments such as burning, herbicide application, chopping, and planting to insure an adequate stocking of pine. This means that landowners need to make a conscious effort either to seek help in identifying the specific needs of their site or to identify those needs on their own. They must subsequently make the investments of time and money to carry out the treatments necessary to insure pine reforestation. Without the recognition of the need for forest management following harvest, little can be expected in terms of pine establishment except in highly fortuitous situations. As a result, reshaping the perceptions of the owners of some 80 percent of the harvested lands in the South is central to the question of pine reforestation. Their present perception that cutover lands will reforest themselves is only accurate in a small number of cases. Without recognition by the nonindustrial forest landowners of the need to invest in pine regeneration, the South will probably lose much of its pineland resources productivity.

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