

## Forestry Mismanagement -

## Private timberlands get "benign neglect"

or worse

by Howard S. Muse Jr.

More than 19 million acres of North Carolina two-thirds of the state's land surface — is forested. The timberland owned by the forest products industry (2.5 million acres) and the national forests (1.1 million acres) are generally wellmanaged. But much of the 80 percent of the state's timberland that is privately owned (there are nearly 250,000 owners with the average holding 75 to 80 acres) is not.

Some of the timberland is simply the object of "benign neglect." Whatever forest is on the land is left to grow without management. Increasingly, however, privately owned timberland is being harvested without subsequent replanting of desirable species.

Between 1964 and 1974, according to U.S. Forest Service figures, almost 2.9 million acres of timberland in North Carolina were harvested. Only about 19 percent of that land was replanted. About 36 percent of the harvested land restocked itself naturally, producing manageable stands of trees. On the remaining 45 percent, there was no regeneration.

Each year, approximately 100,000 acres of timberland are harvested, mainly by clearcutting. and not regenerated, either naturally or artificially, with desirable species.

"It's just butchered," said a forester for the North Carolina Forest Service. "Most people look at their forest land as a bank. If they want a new car or a new tractor, they just cut it down."

Many of the private owners of timberland are middle-aged or older and unwilling to make an investment in reforestation that may not yield an income for 15 to 20 years.

Since reforestation efforts started on a large scale in North Carolina about 50 years ago, about two million acres have been planted, or only 10 percent of the state's timberland.

Altogether, more than 3 million acres of timberland are in need of regeneration.

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Environmentalists fear that the state is about to become a vast sea of pine plantations. Actually, pines, including North Carolina's most important timber species — the loblolly pine — are being replaced by hardwoods. From 1964 to 1974, hardwoods replaced pines on more than 370,000 acres, an area larger than Mecklenburg County.

Timber harvesting has become so intense in the 23-county northern coastal plain area — the center of the state's forest products industry — that cut has exceeded growth in the early 1970s, and the area contained less pine timber in 1973 than in 1963. Altogether, more than 800,000 acres of the 6.7 million acres of timberland in the 23-county area were harvested from 1963 to 1974. Only 260,000 acres were artificially regenerated. And 90 percent of the replanting was on forest industry land.

Across the state, 58 percent of the loblolly pine plots harvested between 1964 and 1974 are now occupied by hardwoods — often low-grade "green junk" with little present or prospective value.

Inadequate regeneration of harvested timberland is nothing new in North Carolina. "Highgrading," removing better trees and leaving poorer ones, has been standard practice for decades.

More recently, the widespread use of clearcutting, prompted by the introduction of large timber-harvesting machinery, has left North Carolina with a substantial acreage of understocked and unproductive timberland.

Altogether, more than 3 million acres of timberland are in need of regeneration. On another 1.2 million acres, stand conversion (from low-quality hardwood to pine) should be considered for better timber production.

Fortunately, North Carolina still grows more timber than it cuts: 3.97 billion board feet growth versus 2.73 billion board feet in 1973. The gap is much narrower, however, for the commercially valuable yellow pines: 1.85 billion board feet growth versus 1.59 billion board feet cut in 1973. A future upsurge in timber harvesting could easily result in a deficit.

Moreover, the forest products industry is converting its natural stands to plantation management at such a rapid rate that pine removals exceed growth by a wide margin in 1973: 348 million board feet versus 184 million board feet. Until their plantations reach maturity, the forestry companies must make up the difference between what they need and what they grow by buying more privately owned timber.

The North Carolina forestry establishment (composed of the forest products industry, the North Carolina Forest Service, the forestry extension, the North Carolina Forestry Association, and the Duke and North Carolina State schools of forestry) is not unaware of the problems.

Since 1969, the North Carolina Forest Service has been offering private landowners reforestation services at cost. Since 1975, most of the reforestation work has been aided by the federal Forestry Incentives Program, or FIP, a cost-sharing program.

In 1978, North Carolina enacted a state forestry incentives program. And the 1979 General Assembly gave private landowners several new tax incentives in an effort to spur more reforestation.

Those programs, however, are likely to make only a dent in the state's backlog of reforestation work. In light of the large-scale harvesting now going on, North Carolina will fall even farther behind in the task of regenerating timberland.

The incentives program should be combined with reasonable regulation. North Carolina needs to follow the lead of other states — that have adopted mandatory reforestation programs.

Virginia, for example, has had a mandatory reforestation act in effect since 1970. As a result, it leads the southern states in the reforestation of private timberland. From 1974 to 1978, Virginia planted an average of 55,965 acres a year, while North Carolina averaged 28,397 acres a year. Virginia has a smaller area of pine and oak-pine compared with North Carolina's 9.1 million acres—so its efforts are even more significant.

The North Carolina General Assembly should pass legislation requiring harvested land to be reforested by natural or artificial means within a reasonable period of time after harvesting.

The North Carolina Forest Service should be charged with administering the law in concert with its incentive programs. The forest service should be given funds to expand its seedling nursery to meet the increased demand for pine seedlings that will result from the reforestation legislation.

With cooperation from all segments of the forestry establishment, this state can have a reforestation program that will insure a continued supply of timber and preserve the recreational aesthetic, and environmental values of our forest lands.  $\square$