

REFORESTATION IN NEW YORK
PAST, PRESENT AND FUTURE

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John has asked me to give you a brief overview of reforestation in New York - its past, present and the future. I have been associated with the reforestation program for nearly twenty years, but I'll have to rely on your imagination for some of the past history.

The area that was to become New York State was rolling hills, plains, mountains, lakes and streams and was primarily in heavy forest cover. This unlimited resource was in the way of the traditional life-style of the early settlers: agriculture.

Land clearing began, removing the trees for homes and farms. New York in the 1800's was mostly farms with small woodlots. On a typical farm, 91% of the area was cleared and of the remaining 9% only 1% had any old growth timber. Eventually, by 1880, 75% of New York had been cleared of trees.

So farming was extensive and spared practically no area except the Adirondack and Catskill Mountains.

Small settlements had been keeping pace with farm establishment, creating a demand for space and wood products. Lumber, paper and other wood based industries such as tanneries and smelters sought out the previously harvested areas. At Glens Falls, about 15 minutes north of Saratoga Springs, river booms

trapped logs driven from harvesting operations in the Adirondacks. In one 1904 drive, a boom of nearly 700 million board feet was created.

Likewise, heavy cutting had provided lumber mills with the raw materials to meet demands of cities like New York, Syracuse, and Buffalo. Tanneries used large quantities of hemlock bark, leaving the rest of the tree in the woods and the need for charcoal had stripped many sites of cover.

With all this cutting, the forests became a wasteland of stumps, slash and trees too small to be used. It would be many decades before this land could be productive and new tree growth would be of questionable quality.

One thing prospered: The clearcuts produced tremendous browse, establishing the largest deer herd New York ever had.

The large amounts of slash left behind the loggers provided an excellent fuel source should a fire occur. And, of course, fires did occur. In 1899, 79 thousand acres burned. But the big fire came in 1903 when almost over half million acres burned in the Adirondack region alone. Fires roared through both the logged and the few remaining uncut areas destroying not only trees but wildlife habitat and future forest growth. Even the fish in the streams died from silt washed in from burned areas. Other catastrophic events, such as the Great Depression, and careless farming methods had their impact on land use. Farm land played-out and people picked up and moved on, abandoning their farms. The cleared and cultivated lands eroded, clogging streams and further depleting the already marginal farmland.

Surrounded by this view, people began to awaken to the problems concerning the forests and lands of the state. Early pioneers in the field of conservation like Franklin Hough, Charles Sargeant and Colonel William Fox all became deeply involved in the forestry movement, leading the way to establish the Adirondack preserve and stressing the need for better forest management.

Perhaps most misunderstood of these forestry pioneers was Bernard Fernow. The founder of the College of Forestry at Cornell University, he also established one of the first forest tree nurseries. This nursery produced seedlings for planting in the devastated Adirondacks. But his zeal was his undoing for he also advocated clearcutting the poor quality hardwoods and planting softwoods in the Adirondacks. This stance angered everyone, caused his dismissal from Cornell and the closing of the forestry college after only five short years.

But what had been started and encouraged by these men and others would not be stopped. Most early efforts in reforestation were on private lands. Early plantings by the State were done on lands in the Adirondacks and Catskills, restoring the watershed and reforesting the cut over, burned lands.

Seedlings for the early plantings came from the small nursery established by Fernow and from sources in Europe. These sources could not meet the demand, and in 1902, the state nursery program began with the nursery at Brown's Station in the Catskills. Moderate reforestation efforts continued for the next two decades.

From 1929 to 1933, several events occurred which pushed the

reforestation effort to new levels. The 1929 Enlarged Reforestation Act and the 1931 Hewitt Amendment to it enabled the State to purchase abandoned farms and other lands for reforestation. In the next 50 years, the State purchased over 1,000,000 acres. In 1933, the Civilian Conservation Corps, composed of many of those men who had lost their land in the Depression, planted these acquired lands.

It and eight other nurseries were producing 30,000,000 seedlings annually by 1932.

About the same time as the increased reforestation effort was taking place, five Forest Districts were established. Their purpose was to oversee tree planting operations, coordinate fire prevention and fire fighting efforts and controlling forest insect and disease problems. These five would grow to 14 forestry offices across the State, providing forest management on State lands and management assistance on private lands.

After a brief lull, the land purchase boom began again in the 1940's and extended through the 1950's and early 1960's. Pressure on the nurseries for Land Bank Program plantings and others would rival that of the earlier decade.

While the State had completed most of its land purchases by this time, private interests continued the planting boom into the early 1970's, calling for over 16,000,000 seedlings from the Saratoga and Lowville Nurseries in 1971.

In the meantime, the earlier plantings had grown to manageable size. But aside from some CCC conducted thinning operations and some limited pulp harvests, not much management

had been done in these plantations. This was soon to change. Professional foresters examined these plantations for potential products. However, it should be noted that at this time management philosophy was that plantations were considered only as nurse crops for hardwoods. Thinnings were designed to encourage hardwood growth and to produce pole and small saw timber.

Most State plantations were 40 or more years old. Some real decisions had to be made regarding their management and future reforestations. As markets developed, the plantations became more valuable. For instance, a Japanese larch plantation in Washington County was clearcut in 1985 to provide raw material for a turning mill producing plywood. It was clear that plantations were economically valuable and not existing solely to provide cover until hardwoods could be established.

Other aspects of plantation management required the foresters attention. The impact of scleroderris canker on established plantings in the mid '70's was devastating, requiring immediate salvage operations and restrictions in reforestation efforts.

A page has turned in plantation and reforestation management in New York. Clearcutting and replanting are now viable alternatives to the nurse crop syndrome. We have begun a program of managing plantations with the view of rotating one plantation after another.

Reforestation is a part of the forestry program in New York for several reasons. The diverse food and cover provided by conifer plantations attracts wildlife which provides recreational

opportunities for sightseers and hunters. The commercial aspects of plantation-produced forest products contributes to local, national and international economies.

Hardwood plantations have not meet with much success in New York. However, with developing management techniques they may become an alternative to conifers on some sites.

The nursery program, now reduced to one nursery at Saratoga, will continue to produce seedlings necessary for future plantations. Traditional and new management programs may require a greater diversity of species than we've had to date. Major planting programs that we have experienced in the past will probably not occur in New York again. There will be a need for genetically improved stock because the economics of reforestation will require high quality seedlings. Seed orchards producing genetically improved seed will be the basis for this program.

An increasing segment of the population is becoming more involved in forest management. Wood products may not be the most important need to be obtained from forest management. The public requires green space, recreational opportunities and a place to escape. Meetings between the public and forestry professionals will provide guidance to land managers. Reforestation, recreation, clearcutting, herbicide use, prescribed fire and other actions will be influenced by public's involvement.

The future of plantation management in New York is bright. The diversity of the conifer forest will continue to provide varied recreational opportunities, forest products and an

•• opportunity for idle land to become productive.

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