

**THE OLDER FOREST
PLANTATIONS IN
MASSACHUSETTS:
CONIFERS, PP. 3-35**

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The Older Forest Plantations in Massachusetts: Conifers, pp. 3-35 by J. R. Simmons

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J. R. SIMMONS

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Massachusetts, State Forester

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THE OLDER

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FOREST PLANTATIONS

IN

MASSACHUSETTS.

CONIFERS.

J. R. SIMMONS, ASSISTANT FORESTER, UNDER THE DIRECTION OF
F. W. RANE, STATE FORESTER.



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FOREWORD.

Mr. Simmons has brought together in this bulletin some very valuable information. All of the examples cited are results of actual early planting in this State.

Many of the plantations, it may be said, have not had the normal conditions that would exist to-day. Most of the stock planted was wild stock dug from the surrounding country, and in some instances the land used was extremely inferior.

With nursery-grown transplants, adaptable soils and modern methods of thinning far better results may be had in the future.

The results reported herewith are extremely conservative, and the reader, I am sure, cannot help receiving encouragement in attempting forest planting of pine in this State.

Interest in reforestation is growing rapidly each year, and we may anticipate what our well-directed efforts of to-day will bring forth twenty-five to fifty years hence by the results here shown.

Every 1,000 acres planted now will mean much to posterity, and, as well, reflect great credit and profit to our generation.

F. W. RANE,
State Forester.

FEB. 1, 1915.

FOREST PLANTATIONS IN MASSACHUSETTS.

INTRODUCTION.

The object of this bulletin is to show the practicability and results of forest planting of coniferous trees, and deals with plantations which have reached an age when value can be measured in terms of lumber. The tracts selected for observation were originally planted by private individuals who represent the pioneers in the work of reforestation in this State. By interviewing these owners, or those to whom their property has been handed on, a considerable amount of information has been collected with regard to the objects which they had in mind in the beginning, the methods employed and the later management of their plantations. To this has been added measurements of each wood lot, either as a whole, or by the selection of sample plots, and the contents computed as described in the succeeding pages. The data and accompanying illustrations were taken in 1914. It is the desire of the State Forester to encourage those who own waste land to bring it back into forest production. This investigation represents one method of showing what may be expected from such an undertaking.

EARLY METHODS AND INTEREST IN FOREST PLANTING.

The period between 1820 and 1880 was one of enthusiastic planting of pine in New England. The lumberman foresaw the time when natural white pine as a marketable commodity would be gone, and the rise in prices would make planted timber of economic importance. Large plantations were made by private owners, and a few by corporations. Seedlings were usually dug up from the fields lying around old seed pines, and planted either at random or in rows, and spaced at distances

varying from 4 to 15 feet. Seed plots were attempted by some, and others even tried out broadcast sowing. At the end of this period there were in Massachusetts alone forest plantations of white pine to the extent of 10,000 acres.¹

Typical of the forest planters of this time was Mr. Augustus Pratt, a former member of the State Board of Agriculture, who, when nineteen years old, planted pine seed on an old pasture belonging to his father. The wood lot which thus developed has been recently cut, and was between forty and fifty years old.

After 1880 interest began to decline, chiefly because of the immense supply of lumber brought from the region of the Great Lakes at a low rate of transportation and the inadequate methods of combating forest fires; these conditions tended to gradually dampen the enthusiasm of the forest planter.

PRESENT NEED OF REFORESTATION.

We are now entering once more upon a campaign for the reclamation of waste land. This is due not alone to the decrease in our supply of lumber, but also to the following facts:—

There is a growing sentiment among our people for forests and scenic beauty. There are nearly 1,000,000 acres of waste land in Massachusetts; our hardwood forests are threatened by gypsy, brown-tail and other moth pests, and our beautiful chestnut tracts by the ever-increasing chestnut bark disease. Improved methods of forest-fire fighting and the co-operation of railroads, local fire departments and individuals have made possible the protection of forests, once they have been acquired.

Coniferous trees offer the best means of realizing our present needs. They act as the most effective check upon the devastations of the moth, being unedible to the brown-tail, while the gypsy will pass them by if he can find anything else upon which to subsist.² Beneath a pine forest there is always a thick bed of needles which keeps the ground moist and free from sprouts and deciduous seedlings. Therefore, while pine develops tremendous heat in case of fire, it prevents the collec-

¹ United States Forest Service Bulletin No. 35.

² See Massachusetts State Forester's Bulletin on "Improvement Thinnings."

tion of inflammable material which would feed on ordinary ground fire; in other words, it is a good preventive against the first causes.

RECENT PLANTATIONS.

Excellent plantations of pine, ranging from trees a few inches in height to 15 or 20 feet, may be seen on the watersheds of many of our lakes and streams. A large number of individuals and corporations in all parts of the State have undertaken reforestation, either upon their own initiative or with the cooperation of the State Forester. In 1914 the amount of land planted under the reforestation act was 550 acres. In addition to this, the Massachusetts State institutions and commissions planted about 700 acres. The transplants were supplied from the State Forester's nursery at Amherst, Mass. A new State Forest Commission has, within the year, been appointed by the Governor, and empowered to acquire wild and waste lands for the purpose of converting them into State forests. These lands will be turned over to the State Forester for planting and management. In most parts of the State the work of private forestry companies is also becoming evident. To many people a flourishing forest is sufficient remuneration. For the economic advantages of reforestation the reader is referred to the measurements given herewith, and also to "Forest Mensuration of the White Pine," which can be obtained by writing to the State Forester.

THE FOREST TAXATION LAW.

The advantages of the new forest taxation law should be known and understood by those interested in the subject of reforestation. In order to benefit by the provisions of the law the forest plantation must first be registered. The law then substitutes for the general tax on land and timber two taxes, *i.e.*, one on the land at its own value, the same as if all the trees had been removed, and one equal to 6 per cent. of the stumpage value, payable when the timber is cut. The owner of a registered plantation would therefore pay an annual tax on the value of his land (\$1 to \$10 per acre, which at a \$20 rate would amount to 2 to 20 cents) so long as the plantation stood, and a yield tax of 6 per cent. when the timber was cut