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These species may not be the most desirable for timber growth, and should therefore be replaced as soon as sufficient increase of favourable conditions is attained, by undergrowing them with more valuable species, gradually removing the first crop, which had fulfilled its office by preparing the way for its betters.

"To accomplish the result-modification of climatic condition-the extent of such forests must be commensurate with the vast area needing the change, and it is questionable whether the individual efforts of small settlers will not be too isolated, and the results too limited and too remote, to be appreciably beneficial.

"But if the Government does not undertake such forest planting on a large scale, as has been done in European countries, and is now practised in India and Australia, it would certainly be a wise policy to inaugurate and supervise systematic planting of forest belts or clumps as a condition of land grants from the public domain. But this would place the moral obligation upon the Government of providing at least all possible protection against failure, by gathering and disseminating the necessary information on forest growing. Cautious and judicious proceedings are in no enterprise more necessary than in forestry, if financial results are of account. While agricultural experiments are answered in a year's time, or at least in a few years, the sould of forestal operations cannot be ascertained until many years are elapsed. Mistakes are apparent only after generations have passed, especially when timber value or financial results form the main object.

"A few examples may illustrate my meaning. Some eighty or ninety years ago the American white pine was highly extolled in Germany as a desirable immigrant and largely planted. To day it is found that to attain the quality which we demand for building timber the white pine requires more than one-third longer time than the native Scotch pine. Whether the larger yield per acre will offset the amount of interest on the original outlay thus lost, is extremely questionable.

"Another mistake was the cultivation of birch in pure (unmixed) growth, which found its advocates some years ago. The results of this birch mania have been large areas impoverished under the thin foliage of the birch, which neither shades the ground nor enriches it with suitable humus, taxing the ingenuity of the forester to restore the soil to proper condition.

"The mistakes made in European forestry are frequent enough to serve as a warning for others to proceed more judiciously.

"I would not discourage the planters of walnut in our northern climes, who, from the rapid growth which the tree makes in the first ten or twenty years, calculate the prospective sawlogs of the forty year old tree; but it has impressed me more than ever with the importance of the work to which I was called for some time, namely, to ascertain the rate of growth of different species at different periods of their life, and the bearing of this on the financial result of their cultivation.

"To show you what such a small item as the distance of planting may have upon the ultimate results, I copy from my note book the following figures of an experiment. Thirty acros planted with Scotch pine in different widths, actual measurement, after twenty-five years' growth revealed these results :--

Interval tween plants.	Proportion of yield.
8 feet	1.60
4.5 feet	1.50
6 feet	1.90
7.5 feot	1.00
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"Such examples may be used to show that forest experimentation cannot be expected to be undertaken by private individuals—at least, that systematic Government aid is necessary, if it is the interest of the Government to achieve results for the benefit of its constituents.

"No where, it seems to me, are measures of encouragement by Government called for more urgently than in establishing systematic forestry in your country. Part