FOREST TREE IMPROVEMENT ACTIVITIES FROM THE VIEWPOINT OF INDUSTRY

Chairman: H. C Buck

FROM THE VIEWPOINT OF FOREST INDUSTRY APPRAISAL OF FOREST TREE IMPRVEMENT ACTIVITIES

E.L. Giddings

Superintendent, Penobscot Development Company

Great Works, Maine

The observations that I have to make in the next few minutes will necessity be limited to the situation in the Northeast and particularly to the pulp and paper industry in Maine, for it is with these that I am most familiar.

The first point I would like to make is that the demand for an improved forest tree for the pulp and paper industry in the Northeast is not yet great and the techniques and applications so far developed for improving trees have not as yet stimulated great interest. If this were not generally so I believe you would find many more industrial foresters attending this meeting today. If you will look through this crowd I believe you will find that the percentage of men present who are employed by forest industry, especially pulp and paper, is lower than might be expected in a similar session in the South or the West. There are several reasons for this, it seems to me.

The first reason is that most of our stands in the spruce-fir-hardwoods sections of the Northeast are all-aged and of mixed species. In these stands and under the conditions existing it is quite difficult to exert much control over the breeding of trees to improve their quality. A second reason is found in the abundant natural reproduction that is found in these stands. Sometimes this reprduction may not appear to be of the most desirable type but very often it is of the best and certainly the average is not too bad. This leads us to a third reason for our present outlook which is that current mill technology has developed so fast that trees and species that once were considered of little use for making pulp, now are producing very useful and marketable fibre. Thus by increasing the supply of wood from which we can draw, the pressure for individually high yielding trees has been reduced. In sections of the country where even-aged stands and artificial regeneration are the rule, the possibilities in tree improvement appear to be such that there is a lot of interest and activity developed naturally and I expect the two other speakers on this panel will tell us about that but the probabilities of doing much that is spectacular in tree improvement work in the northern New England forests in the near future are not very likely.

It is not my intention to give you the impression that there is no interest or activity in finding and developing improved forest trees. There is probably more interest now than there has ever been and at least part of that is due to the increasing amount of integration that has been taking place within company organizations, wherein mill superintendents and technicians have been getting much better acquainted with the timberlands and wood procurement matters on the one hand, and the foresters and wood procurement people have been getting much better acquainted with what a cord of wood, or 100 pounds of wood, will yield in terms of fibre, on the other hand.

A year ago at the meeting of this group in Beltsville, Dr, Harold Mitchell of the Forest Products Laboratory in Madison told us of a wood density study that had just been completed in Mississippi. You will recall that he had some very striking slides which showed some unexpected results of the amount of usable fibre that could be obtained from the various species and in the various parts of the state. During the past winter Mitchell came to Maine and a project of a similar nature has been designed to study the wood density of the principal softwoods of that state. Some 12 or more companies, the University of Maine Forestry School and the U. S. Forest Service are going to make the study starting within a month. One of the features of the Maine study, as was the case in Mississippi, will be the attempt to locate superior or elite trees, A number of very able foresters have inquired, and quite reasonably, as to what we are going to do with the results of the wood density study once we get them. It is hard to answer such an inquiry now, but the companies, the University and the U. S. Forest Service apparently have enough faith in the developments of the next few years, including the developments in forest tree improvement, that they agreed to contribute considerable manpower and money to gather the basic data in the cooperative study. The chances appear good that they will find a use for the information once they get it.

Three years ago at the meeting of this group in Ithaca, New York, I presented my views on possible applications of genetical methods in the spruce-fir type of Maine. Three possibilities were mentioned, The first possibility lay in the marking of timber that is to be cut. I can report to you that there is a lot more timber being marked in Maine now than there was 3 years ago. The second possible application was a search for "elite" trees. This will be done as a part of the wood density study now starting. The third possibility lay in the promotion of research in silvics and related fields that would provide better guides for the marking of timber. This is being done in the numerous forms of support being provided to research projects of the University of Maine, the U. S. Forest Service and the Maine Forest Service. There are a number of cooperative studies under way similar to the wood-density study and the broad support for these studies is providing much new and useful information for managing lands.

In summary, it would seem that even though the chances of developing something startling in tree improvement, that would be of great importance to the pulp and paper industry in the Northeast, appear to be rather improbable at the moment, nevertheless, many of the companies, including ours, appear to be interested in promoting reasonable projects where possible, and I am sure that all of them will be more than delighted

when some really productive trees and techniques are discovered or developed that will greatly improve the quality and quantity of fibre that can be grown on an acre in a year. The pulp and paper industry is very competitive and we in Maine do not intend to let those companies in other sections of the country outdistance us if we can avoid it. Therefore it would appear that interest in forest tree improvement will tend to increase over the years rather than decrease.