## ROADSIDE TREE TECHNIQUES

Dr. Rush P. Marshall, Chairman Committee on Tree Planting and Culture Director, Bartlett Tree Research Laboratory

THE SCRIPTURES abjure us against laying up treasures on earth "where moth and rust doth corrupt, and where thieves break through and steal." There is probably no group in this country which has produced more wealth than these men here today or which has a greater problem in protecting the roadside trees of America against corruption and disease. Not only has this group been instrumental in saving a priceless heritage of fine standing trees, but they have also created planting and erosion-control work that has added to the beauty of the country and has made its highways pleasanter and safer. The value of fine roadside trees in dollars alone is very great: in higher values, in maintaining the livability of our countryside, these trees are priceless.

To protect what you have on American roadsides, this committee has a job to do which is perhaps more difficult than anything any other agricultural or forestry group is trying to do in the country today. You men represent the entire country, you represent a wide variation of climates, soils, and topographic and land-use conditions, in many regions.

With this great wealth represented by standing shade trees on roadsides and lands adjacent to highways comes a responsibility for protection against insects and disease--the moths and corruption referred to in the scriptures.

Checking over, very roughly and rapidly in my mind, the sources of corruption of shade trees, I believe there are about two thousand different pathological tree troubles to be dealt with.

There are mechanical and physiological tree troubles, and a wide variety of virus and bacterial infections, and the fungi most damaging of all. Then we have troubles with perhaps three thousand kinds of insects in our trees.

No man can know more than a very few hundreds, at most, of these fungi and insects. The matter of control speeds up the rate at which the kaleidescopic picture changes. Today we heard revolutionary methods advanced by two of our great chemical corporations. Now we must not forget that great as has been the effort to control erosion by the use of chemicals such as those described, a much greater expenditure of time and money has gone into research work toward control of the insects and fungus diseases of shade trees.

And there is a picture that changes from day to day: tomorrow we hear of new insects and tree diseases; the next day we have better, newer methods to combat them. Our only solution in using these new chemicals is careful research to avoid damage to our trees not only by the insects and fungi but also by improper use of chemicals designed to control the insects and diseases.

The problem is so complex. We must depend largely upon other agencies with whom we have contact, such as the U.S. Department of Agriculture, the State Agricultural Experiment Stations, the colleges and universities, and these great private companies and corporations who not only manufacture materials but also conduct research in their use.

All this we must do. But as we talked these things over in the Committee the

ther day - keeping in touch with all these sources of information is not enough. e must not only ask these fact-collecting agencies and corporations for help, but we ust also help them. This organization must help to educate those who control the urse strings of funds which go to these institutions and agencies. Too many of these gencies are handicapped by pressure groups urging research on wheat, or corn, or pples. These crops have more monetary value. This group, more than any other, could ducate those leaders of the country regarding the real value, the direct and indirect alue of the trees you protect, the roadside trees of the country. More research hould be done on the protection of these trees. This is the message that I have to and different to an Association with the birth of the ive you. DISCUSSION

## Join draw to have a set of the se

R. NEALE: We have been very lax in encouraging research in these tree problems. If any one has any question on tree techniques, let us have them.

R. WRIGHT suggested that questions be submitted to Dr. Marshall, or to Mr. Neale, as such questions would help Dr. Marshall in his committee work. area? to London and and a gas of the second second

our trans and may be the liments are found but also by lapedum one of anomicals de-

The produces in' to maning, We must depend targetly upon other agencies with -Instrant with the section the de Department of April 21 Large the Sector April 21 thread hyperthreat Scittors, 10: collares and universibles, and these treat private com-

AIL this we must not no was talked these bhings over in the Dynation the