Abstract

On January 8 and 9, 1980, a 2-day meeting of the U.S. Forest Service American chestnut cooperators was held at Pipestem State Park, Pipestem, West Virginia. All Forest Service chestnut cooperators were represented as were *a* number of other chestnut researchers. Topics discussed included laboratory studies of *Endothia parasitica*, field studies of hypovirulance, virology-biochemistry, and miscellaneous. A total of 43 talks were given at this meeting. All speakers provided short abstracts *of* their talks; these abstracts are presented here.

The Author

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Foreword

Since the death of the American chestnut, there has hen concern, resignation, and ROW new hope. This new hope is hypovirulence--a phenomenon that was initially observed in Italy. Many European chestnut trees have recovered from the blight and European researchers believe hypovirulence, less virulent strains of the chestnut blight, is the best explanation for this recovery. In the United States, hypovirulence has potential for biological control of the chestnut blight, but we realize there are many problems to solve before hypovirulence or any other control method. will unlock the mystery of the chestnut blight.

On January 8 and 9, 7980, a 2-day meeting of the U.S. Forest Service American chestnut cooperators was held at Pipestem State Park, Pipestem, West Virginia. All Forest Service chestnut cooperators were represented, including participants from West Virginia University, Concord College, Virginia Polytechnic Institute and State University, Duke University, University of Kentucky, Utah State University, and the Southeastern Forest Experiment Stat ion. Researchers from the Connecticut Agricultural Experiment. Station also attended. Forest Service personnel from the Northeastern Forest Experiment Station and Washington Office were present, as were members of the West Virginia Department of Agriculture and the USDA Southeastern Fruit and Tree Nut Lab. A total of 43 talks were given at this meeting. All speakers provided short abstracts of their talks; these abstracts are presented here.

The purpose of the meeting was to provide an opportunity for the cooperators and other researchers to report the status of their cooperative research on American chestnut. The meeting allowed *for* an exchange of ideas among those in attendance; no doubt future research

will be improved by thoughts and ideas exchanged at the meeting. The program was divided into four sessions--

Laboratory cultural studies in *Endothia parasitica*
Field studies (hypovirulence);
Virology-biochemistry;
Miscellaneous

After each session, there was an informal discussion among the participants.

At the final session, future American chestnut research needs were discussed, with special emphasis on how the hypovirulent phenomenon works. There was need for more quantitative research data to support research statements, and a need to establish more specific study objectives and priorities. Researchers also suggested a need to evaluate the effects of hypovirulent isolates on some selected hybrid tree species that were planted by Jesse Diller in the eastern United States between 1947 and 1955. Also a terminology guide for chestnut researchers was suggested.

Hypovirulence may not be a complete solution to the American chestnut problem, and it is doubtful that any one single system such as hypovirulence is going to provide the solution to the blight problem. In recent years, we believe, chestnut researchers in the United States have learned more about hypovirulence than in all the previous years combined. Cooperators and researchers were urged to continue their efforts. The American chestnut blight problem could not be solved in a given number of years even with unlimited funding. Presently lack of knowledge is more of a problem than lack of funds. However, funds and support are necessary to gain knowledge and to continue the research effort. The Forest Service *was* urged to continue to provide funding for this research program.

Presently most mature American chestnut trees within its natural range are dead. However, the species survives in nature through sprouts that develop from living roots. The American chestnut was a major tree species throughout the eastern forests until the blight, Endothia *parasitica,* eliminated it. With current emphasis and increasing concern, based on the European situation, a breakthrough is possible. Through cooperative efforts and free exchange of ideas as exhibited at this meeting, researchers hope to solve the mystery of the chestnut blight and *allow* the American chestnut to regain its prominence in the eastern hardwood forests.

--H. CLAY SMITH