trolled. I might answer, "My dear fellow, the pest is already controlled by lethal factors and fluctuations of food supply, the cold, heat, winds and storms control it as do natural barriers, such as rivers, etc., and besides certain birds and beetles control it. Likewise, a fly parasite and a parasite wasp. Unfortunately, the latter is also controlled by a hyperparasite." In reply, supposing his anger was controlled by various inhibitions, including an inferiority complex, he might say, "Excuse me that I did not use the right word, but I am an unlearned and ignorant man. The insect has now controlled the crop and it is all dead."

I want to protest again and as strongly as I know how against the above uses of the word for meanings for which there are so many more precise designations and to urge that these other words be used, such as natural checks, climatic restrictions, topographical barriers, biological limitations or even environmental resistance for all these things that have no direct practical bearing on the problems of the farmer. He is thinking of the things that he can do to avoid the losses due to insects, fungi and other troubles. Control in this usual sense applies correctly in such cases as frost control which is accomplished by orchard heating and to moisture control by means of irrigation and cultivation. It would be just as bad to confuse these practices with meteorological limitations, restrictions or barriers. Our cooperative associations are beginning to accomplish very effectively the control of marketing to avoid this class of losses. In this work one also meets with commercial limitations, checks and barriers that must be considered, but must not be confused with what we can do to obtain better prices.

Those who insist on using the word control to express also other ideas should at least suggest another word that could be exclusively used to mean precisely what the great majority do mean when they say control.

C. W. WOODWORTH

BERKELEY, CALIFORNIA

BLACK WALNUT CANKER

IN the fall of 1929, the extension specialist in forestry at West Virginia University, Mr. T. W. Skuce, informed me of the occurrence in the north central part of this state of a serious canker on the black walnut, *Juglans nigra* L. It was not until February, 1930, that I was able to obtain specimens in the field.

This disease has been observed upon trees varying in diameter from three to twenty inches. The cankers are located at any point on the older wood but are most conspicuous upon the trunk and larger branches where they form "cat-faces" or targets composed of very prominent concentric rings of callus tissue. The margins of the cankers are very rough, being composed of the last formed and largest roll of callus tissue, together with the attached bark. This gives the characteristic cankers a concentric flaring appearance with a diameter which is usually greater than the diameter of the trunk or limb at the point of canker formation. What appear to be young infections often show a burl-like growth before they open up to form the concentric rings so typical of the older cankers.

It has been noted also that whenever a tree is attacked several cankers are present and are well distributed on the trunk and larger limbs. Other trees near by may show no symptoms of disease. This is suggestive of an inherent difference in susceptibility among trees of similar ages in the same stand.

On many of the cankers, most commonly on the callus rings of two or three years ago, the perithecia of a Nectria are abundantly formed.

The appearance of this Nectria associated with such characteristic cankers suggests that this disease is closely related to the European canker which is well known in Europe on beech and other deciduous trees, and in America on the cultivated apple, but not reported as occurring upon black walnut. In fact, there are no published records so far as I can ascertain of this disease of the black walnut.

Because of the commercial importance of the black walnut in West Virginia and the fact that this disease renders the timber practically worthless, arrangements have been made by the Agricultural Experiment Station of West Virginia to conduct an investigation of this disease, including its geographical distribution, its origin, nature, host range, importance and the conditions surrounding infection and spread by the pathogen. This note is published to call attention to the black walnut canker; any information regarding its occurrence anywhere will be gratefully received.

C. R. ORTON

WEST VIRGINIA UNIVERSITY

DUTCH ELM DISEASE IN OHIO

SEVERAL cases of the Dutch elm disease have been found in Ohio. The field symptoms exhibited were similar to those of the Dutch elm disease. The leaves wilted on certain branches or over the entire tree. Later, they turned yellow and dropped. The affected limbs died. When cross sections were made the typical brown discoloration of the vascular tissue was found, appearing generally as a broken ring but sometimes forming a complete circle. When the bark