

knot exists in the nurseries of that State, and recently a hurried bacteriological examination of certain Victorian material has been undertaken, in co-operation, by Professor S. T. Champtaloup, of Otago University, Mr. C. C. Brittlebank, Plant Pathologist of the Victorian Department of Agriculture, and the writer. The results of this investigation are not yet completed, but an organism culturally and microscopically identical with that described by Dr. Smith under the name of *Bacterium tumiefaciens* has been isolated. Pure cultures of this organism, however, have as yet failed to produce positive results in inoculation experiments, and there is still a doubt whether in this case the organism is really the cause of root-knot. However, it must be remembered that the material used was all from a single culture from a single tree, and Dr. Smith himself repeatedly isolated the organism *Bacterium tumiefaciens* from apple material only to find that it gave negative results in inoculation experiments. It is also to be borne in mind that, owing to certain difficulties, the plants used for inoculation purposes in the recent examination were not apple-trees, but other soft-wooded plants which in American experience gave positive results. It is quite conceivable that the organisms isolated here may be pathogenic only to apple-trees, and this matter is now under investigation. Thus, although it cannot as yet be definitely said that the causal organism has been isolated, much more work remains to be done with cultures drawn from various sources, and inoculation experiments conducted under various conditions, before it can be in any way asserted that no pathogenic organism occurs in the root-knots of Australian apple-trees.



BRINGING IN WATTLE-BARK AT TE KAUWHATA.