second a bright-yellow, and the third a deep-brown inner bark. The colour is more deep the nearer it is to the root, and less deep towards the ends of the branches. The Maoris are said to have used both *Coprosma grandifolia* and *C. robusta* or *C. lucida* for producing shades of yellow in their phormium cloths, but the author can find no reference to a red or a blue dye obtained by the Natives from these plants.

Extracts from *Coprosma grandifolia* dye cotton a delicate pink or red, and wool shades of purple, and the brown inner bark of *C. areolata* stains the hands a persistent brown. The following experiment seems to show that both alizarin and purpurin or nearly allied compounds are present in the bark of *C. grandifolia*. Seventy-two grams of the fresh bark of *C. grandifolia* from the above-ground portions of the plant gathered in August were allowed to lie for forty-eight hours, and were then steeped in water for twenty-four hours and the water separated. The bark was then steeped in alcohol for twenty-four hours and the alcohol removed by distillation. A small portion of the alcoholic extract gave on mixing with caustic soda (10-per-cent. solution) a brilliant purple coloration, becoming yellow with dilute hydrochloric acid. The acid alcoholic extract was shaken with ether six times, which removed all the colouring-matter. On evaporating the ether a crust of orange-coloured crystals was deposited: these under the microscope were seen to consist of a mixture of bright-red and yellowish clumps of acicular crystals. After drying in a desiccator over sulphuric acid the weight was 0·05 gram (= 0·068 per cent. of the wet bark). These crystals, which sublimed on the walls of a test-tube immersed in hot sulphuric acid, by the action of a boiling saturated solution of potash alum were separated into a yellowish-red fluorescent solution and a brown insoluble substance which gave an intense purple coloration with alkalis. Tannic acid did not precipitate the colouring-matter from either the acid or alkaline solution.

The present desire to utilize New Zealand vegetable dyes in connection with the home spinning of woollen goods and the dyeing of military material, and the abundance of the forty New Zealand species of *Coprosma* and the large size of their roots compared with madder-roots used in commerce, have suggested to the author that the economic as well as the scientific aspect should be investigated. Preliminary tests show that there is reason to believe that closely similar if not identical dyes to those of madder are to be obtained from *Coprosma*, and the matter is accordingly being made the subject of research.