

stem 2 feet in diameter; but, of course, if grown for the purpose of yielding food for silkworms, it would be kept low by frequent cutting, thereby inducing a more vigorous growth and greater supply of succulent three-lobed leaves, with a profusion of white berries, sometimes, however, varying to red, and possessing a sweet and insipid taste.

The tree is a native of China, but is fully acclimatized and abundant in the Australian Colonies and New Zealand: it has long been in the Province of Canterbury. A Wardian case of white mulberries, shipped by Thos. H. Potts, Esq., in the ship "John Taylor," in 1853, were planted in Mr. Dampier's garden in Lyttelton; and a further supply came from the Cape, some of which were planted, and are still growing to a height of 20 feet, in the garden of the late John Bealey, Esq., besides several other gardens in and around Christchurch.

#### CLEANLINESS.

It is highly essential to the health and well-being of the silkworm that the atmosphere of the building in which the silkworm is reared should be kept sweet and wholesome through the daily removal of decaying mid-ribs of partially consumed leaves or other refuse; that fresh leaves should be given every morning, and these only in a perfectly dry state. Attention to these conditions will maintain the insects in high health and vigour, enabling them to produce silk in greater abundance and of superior quality.

#### GENERAL REMARKS.

Having now an abundance of the eggs of the silkworm, I hope to follow up my experiments in silk culture on a much more extensive scale during the coming summer, fully testing the comparative merits of the silk-producing qualities of the black and white mulberry, the relative health and progressive increase of the silkworm, the best modes of propagation and culture of the most desirable variety of the mulberry, which is still an open question, together with such general information as may tend to raise the culture of the silkworm through the stage of experiment into the more exalted position of a settled and highly profitable rural industry, affording lucrative employment and gladdening the homes of thousands of New Zealand colonists with the means of comfort, happiness, and peaceful independence.

To J. T. Peacock, Esq.,  
Chairman, Canterbury Acclimatization Society.

I am, &c.,  
W. WILSON.

### Sub-Enclosure 2 to Enclosure in No. 14.

MEMORANDUM by Mr. DAVID NAIRN.

#### INTRODUCTION.

IN August, 1868, I received from the Canterbury Acclimatization Society seventy eggs of the *Bombyx mori*, being part of some presented to the Society by a gentleman of Sydney.

Being the only successful cultivator of the silkworm that year, I allowed the moths to eat through the cocoons, and obtained from them a supply of eggs, part of which I distributed to Mr. William Wilson and other members of the Society, and am happy to state that they have been as successful as myself in my first year's experience.

In the year 1869 I tried the experiment of feeding the worms on trees in the open air, and the killing of the pupæ in the cocoons, and drying the cocoons for exportation; all of which I will afterwards explain in order, hoping that others will be induced to forward a new industry in this Province, by giving silk culture a trial.

#### HATCHING.

The female moth lays some 200 to 400 eggs. I have used pieces of silk paper for the eggs to be deposited on, and these should be placed in some cool and dry place during winter, otherwise the eggs would be hatched long before there are any mulberry leaves to feed the worms upon. When hatched too early I have had to feed them on lettuce leaves, which causes a change of colour in the silk, and a diminution in the size of the cocoons.

The eggs begin to hatch about the middle of October.

In Canterbury the black is the only kind of mulberry I have had to feed the worms upon; but I am told that the white is much the best, and is sooner in leaf.

#### FEEDING.

When the worms make their appearance from the eggs, they are not much larger than a pin's head. A few fresh leaves should then be given them daily; and I find it necessary that the leaves be dry, as wet leaves appear fatal to the worms.

The worms grow very fast, so that a great increase in size is perceptible every day. They cast their skin four times in six weeks, if well attended to. They should be kept clean, and in the sun as much as possible.

#### SPINNING OF THE COCOONS.

The worms arrive at maturity in nine weeks, when they will commence spinning.

A well-sheltered summerhouse I find very suitable to keep them in.

Paper curtains should be hung for them to spin upon, or they will make a very large quantity of loose silk to hang their cocoons upon, which should be avoided, as the larger the cocoons the more valuable.

#### KILLING THE CHRYSALIS AND DRYING THE COCOONS.

As the moths will eat through the cocoons if the chrysalides (or pupæ) are not killed, the cocoons should be spread on white tin, and placed in the hot sun for three days, which will kill the chrysalides and dry up the cocoons, so that they can be packed for export without danger of being damaged, as the sample enclosed herewith will illustrate.

DAVID NAIRN.