

but every day brings forth new methods of doing so. Meanwhile, we advise our readers to thread the cocoons in rows of one hundred each, and hang them up in different temperatures, so that we may find out which suits them best. They must not be kept together in baskets or boxes, as they will, more or less, ferment; and then, if the moth does not come forth prematurely, they may contract maladies, which will be transmitted to the eggs, and most probably to forthcoming generations. The fear of birds seems to strike people who hear of this open-air cultivation, and I have given great attention to this subject. This fear has almost totally disappeared under the experiences of Messrs. Hébert and Lamotte-Baracé, especially since they have begun on a larger scale the cultivation of this worm; and if ants, wasps, or birds do carry off a small quantity, it is not missed in a large plantation where these worms feed. The same reason applies to fields where cereals are grown, and which birds and insects attack, and of which one does not count the ravages because of the enormous quantity of the crop.

CULTURE OF AILANTHUS GLANDULOSA.

This is not the place to enter into the etymology of the name of this tree; suffice it to say that its name of Vernis du Japon, or Japan varnish-tree, was given to it by the Abbé Incarville, who introduced it into Europe in 1751, thinking it was really the tree which produces that precious varnish which is so much employed in Japan and China. A few years ago the true tree was introduced, so that the ailanthus has since that period borne the name of the false varnish-tree.

We all know that the ailanthus is one of the easiest shrubs to grow, and there is no soil, however, bad, in which it will not thrive. Calcareous, ferruginous, sandy, clay, arid, and strong soils all suit it equally. In towns, or by the seaside, it does admirably. Like the Sumac, to which it is allied, it throws out suckers from its roots. It is by these means that it is multiplied, but, since it has seeded in France, they propagate it in this manner at present. The seeds, which are numerous, ripen in autumn; they may be gathered from the month of November till January. They must be carefully dried for fear of fermentation. The seeds may be sown from the months of February till May, broadcast or in rows, and ought to be covered with from one to two centimetres of earth, and they will appear from three weeks to a month after they are sown. With the exception of a few cereal grains, there are hardly any other shrubs where the seed germinates so quickly, and it is not uncommon to see some of the shoots from these seeds thirty to fifty inches high the first year. Quantities of ailanthus trees have been planted on the Apennines, because they resist the bite of animals, and no ground game will touch them on account of the smell they exude when a leaf is gathered, or a branch broken off. Those trees destined for the reception of the worms ought to be planted about a yard from each other; the chief stem cut down every year, so that the young shoots spring up and afford young tender leaves for the worms; and by planting them not too great a distance one from another, the shoots join each other, and thus enable the worms to go from one plant to another. As I mentioned before, this tree may be multiplied by its roots, which can be cut off and planted as we do potatoes. Where the plants are yearly cut down, they naturally will not flower or seed. Experience has taught me that, if trees are planted from twelve to fifteen feet high, they may be cut down immediately to within two or three feet of the soil, so that they will immediately throw out fresh shoots. This tree is so hardy and so easy to propagate, that in a plantation of 15,000 to 20,000 plants made in France, not one died. In England it is equally hardy. I planted three dozen standard plants on a sloping bank exposed to the sun; the heads were cut off, and the leaves began to sprout about the middle of May. My worms were hatched (according to the method laid down in this book) and put on the trees the 17th of June. They were then left without further care, except for a few days to watch the ants, which seemed inclined to carry off a few, till the 21st July, when they began their cocoons. Having had no previous experience, too many worms were placed on the trees; consequently they ate up all the leaves and descended the trees in search of more, so many perished in this way. The rest made their cocoons in the Ailanthus, and some in cabbage plants planted near these shrubs.

These cocoons have been pronounced by Monsieur Marchand, of Paris, quite magnificent for size and colour; and I have no doubt that another year I shall be able to carry on this cultivation with the greatest success.

The worms did not appear to mind the great wind or rain they had to experience during the time they were on the trees. I hatched the second crop the 31st August, and they did well till the second week in September, when three fine days brought out wasps to a great extent; and the fruit having been all gathered they seized upon the worms, and, as it were, sucked them till nothing was left but the skin. As I had not been troubled with these pests during the first cultivation, I did not take precautions this time. Another year this might be remedied, but my worms were hatched too late, as the nights were often of the temperature of 42°, and I doubt the worms being able to stand this degree of the cold. Another year I should propose hatching the eggs about the 20th of May. They would have finished their cocoons about the end of June, allowing the trees a month to rest and push forth fresh leaves. And here I beg to remark that, although every vestige of a sprout or leaf was eaten off my trees by the worms, no sooner were they removed than the trees burst forth twice as strong as before.

The second cultivation of worms might commence the beginning of August, and ending the middle of September, which would avoid the colder part of the autumn.

If any person wish for further information than this book affords, I shall be happy to render it; and if by publishing this little account of my own experience I may have helped towards establishing a new source of employment and profit for both poor and rich, my object will be gained.

Referred to Dr. Hector.—W. GISBORNE, 21st March, 1870.

No. 10.

MEMO. for the Hon. the COLONIAL SECRETARY by DR. HECTOR.

MR. BATCHELOR does not make any definite proposition as to the steps he recommends Government to take. After carefully perusing all the papers, I feel convinced that sericulture will only succeed in New Zealand if taken up by the settlers with small means, but who have spare labour that they cannot find employment for at certain seasons of the year.