

This description of the roads, given by the former Commission, as to their state, applies to-day. We have it in evidence that in many cases the charges for freight from certain gumfields to shipping-port or town, and *vice versa*, during seven months out of the year ranges from £3 to £3 10s. per ton, when a charge of 10s. to 15s. per ton would be quite as remunerative to the carter, if there were properly constructed roads. In other words, the cost of living would be reduced to the gum-digger by about 1s. 6d. per week, and the carriage of his gum by 3s. per hundredweight. On the other hand, proper road communication with a shipping-port, &c., would be a boon to the struggling settlers of the North, that in many cases would mean transposing failure into success, and would enable them to establish themselves permanently on their holdings. It may be mentioned here that it is the absence of suitable road-metal in the north of Auckland that makes the construction of roads so expensive in that district, and accounts for their being speedily cut up and transformed into quagmires by gum-traffic, &c., as soon as the wet season sets in.

9. The gum industry, though in so many respects a blessing to the Auckland District, has had its abuses, and has in some ways acted detrimentally to that part of the colony; but for this, it must be admitted, those that have had the administration of affairs are to be blamed rather than the industry itself. Under judicious management it should have been made to yield the means requisite for supplying the arterial lines of communication for the whole of the North, and steps should have been taken to counteract, to some extent, the evil effects to the soil which are so apparent to any one traversing our gumfields. The ground has been roughly dug up wherever gum was suspected to exist, and the thin layer of top-soil, generally only a couple of inches thick, was buried a foot or more; deep holes were made, and left unfilled, and even the very roads were dealt with in the same way; but what has led to far greater destruction of the soil was the continual burning-off of the tea-tree and fern. The gum-digger does not cut down and clear away the vegetation on the surface of the ground he wishes to work for gum. Doing so would be too much trouble to him, and he therefore has recourse to the simpler method of "putting a match into it," and burning-off what there is of vegetation. If he were to adopt this method, and burn only the particular spot he meant to work, then no fault could be found with him; but invariably the fire is allowed to spread, and hundreds and often thousands of acres are burned, when the object was simply to work a few square yards, or, at the utmost, a few square chains of ground. This wanton burning-off is fearfully detrimental, even ruinous, to the ground, as the fire consumes the rootlets, pulverises the little soil there is, and then ashes and soil are carried away by the wind. There are stretches of gum-land everywhere throughout the North where repeated burnings have caused every vestige of soil to disappear, and where there is nothing but the bare white pipeclay left. Not only has the soil been thus destroyed, but in many instances these gum-fires have caused great loss to the settlers—their fences have frequently been destroyed, their homesteads placed in imminent danger, &c. On our journey north we saw the effect of several of these fires; at one place we found four telegraph-poles burned to the ground, and at least eight others badly damaged.

10. It is true that until lately there never seemed to be much chance of grasses taking root and growing on these gum-lands, but there is certainly far less chance of their doing so where the few inches of soil have disappeared altogether. This state of things is the more to be deplored, as experiments carried on during the last four or five years with the view of establishing grasses on poor gum-lands have proved fairly successful in several localities. The grass named *Poa brownii* has spread remarkably well in different places, and seems even to drive the small tea-tree off the field. Although it is not a very nourishing grass, and is not one of which stock is particularly fond, it is better than the natural growth on these gum-lands—viz., fern and tea-tree, which neither cattle nor sheep will eat. There are, besides the *Poa brownii*, several other grasses, such as rat-tail and buffalo grass, which are making fair progress in some parts of the gumfields.

11. While on this subject we may also direct attention to the very valuable experiments with gorse carried on by Mr. T. C. Williams, of Wellington, at Pakaraka, under the supervision of his son (Mr. Guy Williams), who kindly showed us over the estate and explained the cultivation and working of the gorse-culture for pasture. A perusal of his evidence attached to this report will no doubt be read with great interest. The procedure, in short, is this: The ground is ploughed, and gorse is sown either broadcast, or in drills or rows 3 ft. apart, leaving a space sufficiently wide to allow the sheep to pass up and down between the rows. When the gorse reaches a certain height, stock is turned in, and the gorse eaten