

FOREST FUNGI.

Miss Joy Osborne, whose work in the State Forest Service is concerned mainly with mycology, gave us an interesting evening talk on November 19 on Forest Fungi. She introduced us to the subject by describing first how different the nutrition of the fungus is from that of the green plant, which sustains itself by drawing inorganic raw materials from the soil and the atmosphere. Most fungi live either as saprophytes, using dead organic material for food, or, as parasites when they live on another living organism. That interesting class of fungi, the mycorrhiza-forming species, were referred to specially. They grow in and upon the roots of living plants including practically all forest trees, from which they appear to derive something while at the same time they contribute to their host nitrogenous material, which they synthesise using atmospheric nitrogen. This interesting behaviour of forming a helpful partnership with another organism is seen in many fungi, for example, also, in all those which go into lichens.

Most of the forest fungi are beneficial, although some forest fungal diseases are important. Several American examples were described in detail and beautiful illustrated pamphlets for educating the public in these matters were shown. Some gall fungi of indigenous forests, notably Cyttaria gunnii on Nothofagus were demonstrated. Different kinds of wood rots, classified according to the form developed by the rotten wood mass were illustrated with beautiful photographs. How the offending fungus could be isolated was described, and a row of tube cultures showed how the fungus is grown on artificial media in a pure state so that it can be identified.

The saprophytes active in the bush rapidly convert dead wood and leaf material into humus, and finally into nitrate and ammonium compounds which are available to the roots of living plants, and into carbon dioxide which returns to enrich the air. Many forest saprophytic fungi have conspicuous fruit bodies, brackets and toadstools, which were illustrated by a large collection of specimens and some very beautifully pictured books. Miss Osborne explained how these large fungal bodies, which so often appear very suddenly and last but a short time, are built up by the massing of the minute threads which form the main, though usually invisible part of the growing fungus. The cottonwool-like growth in the culture tubes showed the form of the fungus plant which penetrates whatever substratum it grows upon.

The many details which Miss Osborne gave us show what a keen and thorough worker she is in this field. The comprehensive collections and the wide range of exhibits which she carried along with her were a further testimony. Keen appreciation was shown by the meeting. After the talk, over the exhibits, many questions were asked and ably answered by the speaker.

Greta B. Cono.

LABOUR DAY IN THE WANGANUI DISTRICT.

At Raetihi we stopped the car and wondered which way we should take, the Wanganui River or the Fara Para. Fortunately we chose the latter. For a few miles south of Raetihi the country is rather uninteresting, and near the bottom of a long winding hill the road passes over the Mangawhero River, flowing in a deep gorge. This river the road follows, never losing sight of it for thirty or more miles. The country is unlike that in any other part of New Zealand. It is high but not razor-backed. It is all papa country, dearly loved by our kowhai; and it was these kowhais that made our trip so wonderful and interesting. There were literally thousands of them, mostly in bloom. They followed the tortuous river banks, they ornamented the towering papa cliffs above the road, they dotted the green paddocks. They were in all shades of yellow, from lemon to almost orange - kowhai gold - providing a feast for numerous tuis. The trees had extra charm because they are all of the drooping kind; they were showers of gold - no stumpy branches here. Leaves were not showing at all.