

Bracken-infested Land for Potato Cultivation

BRACKEN-INFESTED land can be made very suitable to potato growing provided the proper methods of cultivation are used. Such land is normally light and would be easy to work if it were not for the formidable amount of roots and surface trash that must first be cleared. Trials (described by I. F. Trant, *J. Min. Agric.*, 48, 109; 1941) have been carried out on three areas near Welshpool to determine the best methods for preparing this type of land for a potato crop, and much valuable information has been obtained. Autumn ploughing followed by spring cultivation and immediate planting proved to be expensive and unsatisfactory, as the bracken roots prevented the proper working of the land. Gyrotilling in the spring after the ground had been 'pre-disked' killed off the bracken quite well, but it also was expensive and did not succeed in clearing the trash. A third method, however, though slower than the other two, gave most promising results and at considerably reduced cost. In this case the bracken was ploughed during June and July when it had attained its maximum growth and its reserve of food in the underground portions was at a minimum, a special device for burying the tall fronds being employed. The land was then worked and sown to rape, which was fed off to sheep during the autumn, thereby consolidating and manuring the ground. In the following spring, disk harrows and cultivators produced an excellent tilth, ploughing being omitted as it was likely to bring to the surface rubbish that was best left buried. Potato planting could then be satisfactorily carried out.

Electric Railways in the U.S.S.R.

IN the second of a series on "Transport in the Soviet Union", *Modern Transport* reviews the progress of railway electrification in Russia. It is stated that there were no electric railways in Imperial Russia. The Soviet began the electrification of the suburban lines in the Baku area in 1926 on the d.c. system at 1,200 v. with overhead conductors. In 1929, the 1,500 v. d.c. system was adopted with the inauguration of electric working in the Moscow suburban area, where up to 1926 electric traction was introduced on 112 route miles. In the Leningrad district, 44 miles of route underwent conversion during 1933-34. According to the *Electrical Review* of October 31, on these and certain other local lines in the Caucasus multiple unit passenger trains are employed. In 1932 a start was made with the electrification of certain main lines in mountainous and industrial areas, using the 3,000 v. d.c. system with heavy locomotives of three principal types for passenger, mixed traffic and freight trains. By 1939, electrified main lines comprised 828 route miles with an all-track mileage of 1,100 situated in the Caucasus, Ural, Donbass and Kussbass areas, and also on certain sections of the Murmansk line. Quite apart from the electrified suburban system in Moscow is the underground railway known as the Metro, which ranks not only as one of the newest, but also as one of the most lavishly carried out schemes

of city transport in the world. It was authorized in 1931, and work began in 1932. By 1937 the Metro had 16.45 miles of route, and expansion was continuing.

Recent Earthquakes

ON the evening of November 25 an earthquake caused some apprehension in Lisbon and the surrounding country, though little material damage appears to have been done. Details of recordings from seismographic observatories are awaited before the exact epicentre can be determined. Several of these observatories report very large amplitudes. Fordham University (New York) reports the largest amplitudes since 1910; at Mr. J. J. Shaw's observatory at West Bromwich the recording levers were thrown out of their sockets; at Stonyhurst College Observatory the limits of registration exceeded the width of the paper; the shock was recorded at Kew and Oxford, though, according to Miss E. F. Bellamy, the amplitudes were not so great at the latter place.

On November 28 an earthquake of considerable severity was reported from Peshawar, Rawalpindi and Srinagar. No damage or casualties have been reported. Earthquakes in this district have not been uncommon in recent years and have been regularly reported by voluntary observers to J. M. Sil, representing the India Meteorological Department at Poona.

Announcements

AT the suggestion of Dr. G. Jedlewski, medical adviser to the Polish President, a special medical board has been formed in London to prepare plans for fighting epidemics which may break out in Poland at the end of the War.

A DIETETIC council has been set up in Ireland with Dr. P. T. O'Farrell to experiment on ways and means of aiding the people's nutrition under war-time conditions, paying special attention to the children's diet.

WE regret to announce the following deaths:

Dr. H. Ettringham, F.R.S., the well-known entomologist, president of the Royal Entomological Society during 1931-32, on November 26, aged sixty-eight.

Dr. Walcot Gibson, F.R.S., formerly director for Scotland, H.M. Geological Survey of Great Britain, on November 28, aged seventy-seven.

Dr. F. Stang, rector of the University of Oslo during 1921-27, president of the Nobel Committee of the Storting, who did much pioneer work in comparative research in human culture, aged seventy-four.

ERRATA. "Rigidity and Moisture Hysteresis in Gels", by W. W. Barkas, *NATURE*, November 22, p. 629. The following corrections should have been made in the MS.: (a) in equation (1), the upper limits of the integrals should read p and h_0 respectively; (b) in equation (2), the upper limits should read p_{k_0} , p_{n_0} and h_0 respectively; (c) seven lines below equation (1), for V read v .