

SOIL CONSERVATION RESERVES

Soil conservation reserves are areas which require to be under the direct ownership and control of the Council for the purpose of undertaking soil conservation measures or for demonstration or research projects. They are acquired under section 16 of the Act, and it is proposed to select areas in the different districts which are typical of the various erosion problems and to carry out, as trained staff and equipment can be made available, investigations into the technique of remedial work. The undermentioned areas are being dealt with at the present time, while suitable sites for other areas are being investigated.

Ruatoria.—Action is in hand to acquire an area of approximately 1,500 acres of badly eroding country behind Ruatoria Township. Control works are necessary to check erosion, which has already imperilled portion of the township and communication. The area will also be very suitable for experimental work.

Ihungia.—An area of badly eroded country inland from Te Puia Springs being acquired in conjunction with the Main Highways Board for experimental work and for planting as a protective work for the highway.

Waikoaou - Te Nguru.—An area of about 1,000 acres adjoining the Napier-Wairoa State Highway 20 miles north of Napier. Erosion on the steep hillsides has been most spectacular and has caused heavy damage to highway, which has been repeatedly blocked to traffic. The area is typical of the hill country in the district, and results from preventive measures will be watched with interest. Work of planting this area in conjunction with Main Highways Board is about to begin. It is proposed to plant blocks of various species of trees, particularly macrocarpa, Oregon, and robinia. The work will have a considerable protective and economic value, besides its experimental value.

Esk.—Arrangements are still proceeding for the acquisition of property. In the meantime an aerial survey of the whole area has been made.

Wither Hills.—This locality is two miles south of Blenheim and exhibits very severe sheet and gully erosion and a very large part of the original cover and fertility has been lost. An area of 400 acres of this hill country only 2 miles from Blenheim has been acquired and closed to grazing. Differential planting has been carried out with various trees, grasses, and plants.

Wangamoa.—This reserve is located in the Wangamoa Valley between Nelson and Havelock, being an area of poor and partly farmed bush country adjoining State forest. No operations have yet been possible.

RESEARCH AND EXPERIMENTAL WORK

There can of necessity be very little activity in the field of research work, due to the lack of trained personnel and the impossibility of obtaining the necessary equipment. However, in association with Departments and the district committees, a certain amount of preliminary planning is being done. The Council has assisted in the establishment of plots in the high country of the South Island for vegetative trials in erosion control. The Council also imported grasses for trial in these areas.

A small amount of kudzu seed, the plant which has gained a high reputation in America, was imported and plants successfully raised in Whangarei and Gisborne for distribution throughout New Zealand later. Similarly, one thousand rooted cuttings of shipmast locust (*Robinia pseudoacacia erectissima*) were imported and distributed for trial in protection against sheet and gully erosion.

The Council is taking considerable interest in the operations being carried out on the Molesworth Station, situated in the headwaters of the Awatere Valley, Marlborough. This property, although not managed in any way by the Council, being under the control of the Lands and Survey Department, is virtually a vast experimental area in the management of high country.

The Council has initiated a number of important river surveys enumerated under the heading "Works," but in this instance also the work is limited by available staff.

Research work is planned and will be put into operation as soon as opportunity offers on the reserves referred to in the previous section.

EDUCATIONAL AND PUBLICITY WORK

The Council's programme of educational and publicity work was inaugurated with the distribution to farmers, local authorities, schools, libraries, banks, stock and station agents, and other organizations of a bulletin, "The Menace of Soil Erosion in New Zealand," published by the Council. The demand created was such that a reprint has been necessary. Three bulletins kindly made available by the Department of Scientific and Industrial Research dealing with the depletion of vegetation and the extent of soil erosion in New Zealand were made available to secondary schools and agricultural colleges. There is an encouraging demand from schools for literature on the subject, due, no doubt, to the greater prominence of social studies and agriculture in the curricula of these schools. Three further bulletins have been prepared, but have been delayed by the demands on the existing printing facilities.

The Council has also published a book, "Soil Erosion in New Zealand," by K. B. Cumberland, Lecturer in Geography, Canterbury University College. This work is a valuable survey of the problem of soil erosion in New Zealand and is very fully illustrated with photographs and maps. This is the first major publication on the subject as it affects New Zealand, and is the correlation of information drawn from many sources, and these, combined with the author's very keen observations, make the work a very valuable one.

Four film strips illustrating the various aspects of soil erosion and conservation, emphasizing the value of the prevention of fire and the control of grazing, were prepared and released to Catchment Boards, schools, and colleges for lecture and teaching purposes. Further film strips are proposed, and to cater for these an extensive library of photographs is being built up.

The importance of sound films has been evidenced by the interest displayed in the showing of a number of American films on conservation and river subjects. Arrangements are in hand to prepare several New Zealand films. To enable these to be shown to those most concerned a mobile movie projection unit is proposed.