

SOIL CONSERVATION DISTRICTS

The Council is now in a position to proceed with the constitution of soil conservation districts. Consideration has already been given to this matter, which has had to be postponed on account of shortage of administrative staff. During the year four senior Soil Conservation Officers were appointed, and seven juniors have completed a special training course arranged with the Canterbury Agricultural College and Canterbury University College. The Council wishes to record its appreciation of the co-operation received from the college authorities and staff in making the course a success.

SOIL CONSERVATION RESERVES

Several problem areas have been acquired by the Council under section 16 of the Act on which valuable experimental and preliminary restoration work is in progress.

Esk, an area of approximately 7,500 acres on the headwaters of the Esk River (Hawke's Bay).—Preliminary surveys to delineate areas which after treatment can be farmed from land that must be planted or allowed to regenerate have been completed. In addition, access to such areas has been planned and a tree-nursery site selected. Active rabbit-control was also carried out. In two months some 2,000 rabbits were killed by poisoning and cynogas.

Tangoio.—On this area of nearly 1,000 acres, a total of 196,000 trees were planted, the main species being *Cupressus macrocarpa*, Douglas fir, *Pinus radiata*, and *Eucalyptus viminalis*. The nursery at Waikoau was well established with approximately 30,000 seedlings of *Pinus radiata*, Douglas fir, *Cupressus macrocarpa*, Californian redwood, *Pinus ponderosa*, and cedar of Lebanon.

Destruction of pests during the year accounted for about 2,000 rabbits and 95 goats, but this work requires continuance.

Fencing of an additional area of 92 acres for the 1947 planting has been completed.

Waerenga-o-kuri.—The Council acquired, but has not yet taken possession of, a property of 998 acres of typical eroded Gisborne hill country, seventeen miles from Gisborne, for research and demonstration purposes. Plans are being prepared for experimental and land management work to commence when the lessee's term expires at the end of this year.

Wither Hills.—Research work on the reserve has been continued during the year, and further progress has been made in assisting the property to recover. When taken over it was essentially a depleted danthonia pasture, with no great evidence of other grasses and herbs, and, contrasted with this state, there has been a marked regeneration of the vegetative cover since grazing on the area has been controlled. On the shady faces and gully bottoms there is now an optimum density of plants.

Experiments on twenty-three plots, sown with individual species and mixtures of species, have been continued, and the results of these experiments will be awaited with interest.

The trees planted in August, 1944, have mostly survived in spite of severe droughts, and during 1947 further plantings will be made.

Debris dams have proved effective in filling the eroded gullies, and they have been added to, raised, and strengthened where required.

Maintenance work, such as additional storm-water supplies, destruction of rabbits and hares, firebreaks, and seeding of a 15 acre accidental burn has been carried out.