

new shed 20 ft. by 18 ft. at Castle Creek was long overdue and it will be very essential for storage purposes when conditions up the river are bad. When it is realized that about 130 tons of stores and material are carried to Molesworth every year and the river is often not passable, the need for this shed will be clear. The river crossings will always be a problem in bad weather and they levy a heavy strain on the station truck. Two military medical chests have now been supplied as first-aid outfits, one at Tarndale and one at the homestead.

*Report on Molesworth Station by the Department of Scientific and Industrial Research*

Officers of the Botany Division, Plant Research Bureau, Department of Scientific and Industrial Research, have visited Molesworth biennially since 1943. Their view is that the improvement under the present system of management with cattle has been steady, while not spectacular. Badly depleted tussock country, such as Molesworth was when taken over, is notoriously slow of recovery, even in the complete absence of stock. The Manager at Molesworth has had to put up a never-ending fight against the ravages of rabbits. That in spite of this the improvement has been as distinct as it is noteworthy. Little by little the plant cover has improved, and on the moister flats there is a good sole of grass with white clover showing up prominently, and with some cocksfoot and timothy areas along the Awatere quite astonishing.

It is not that the tussocks themselves have as yet shown much signs of spreading out again into the bared areas, but where the tussock cover still held it has improved in vigour, has seeded freely, and provided shelter for the gradually returning blue-grass. Yorkshire fog is playing a great part in building up the cover within the thinner tussock areas. Even on the bare hills where loose screes have developed a pioneer vegetation is beginning to assert itself, and gives a cheering if slight tinge of colour. Very important as a pioneer is sorrel, which holds its own even when eaten down to the ground by rabbits. Nor should the pioneer part played by blue borage and woolly mullein and the native willow-weeds be scorned. One may say that feed has definitely increased, as is well seen on Isolated Hill. Yet it would be fatal at this juncture to reintroduce sheep, which in a very few seasons would undo all the good work accomplished.

Very striking in the last few years has been the growth on a bare area near Ward Pass overlooking the Acheron River that was surface sown earlier on. Here cocksfoot has steadily increased its hold while subject to grazing by the cattle and rabbits and is now a reasonably good stand, while even rye-grass has persisted and improved somewhat.

A 12-acre plot was selected for experimental work and fenced. The work is handicapped at present by the fact that it has not been possible completely to exclude rabbits, and they have taken toll of any green growth that showed up. Within the area are typical patches of tussock, screes densely covered with sorrel, bare ridges given over to scabweed, and rocky outcrops. There are both sunny and shaded aspects. All the types of vegetation have been studied and charted in detail and permanently marked so that any changes occurring can be accurately measured. Individual plants have also been marked for observation. Areas of tussock are being subjected to spring and to autumn burning, and others have been clipped to simulate grazing effects. Many species of exotic grasses and other forage plants have been sown. While there have been a number that failed to germinate, and all that did suffered from the rabbits, a number showed definite promise. Especially promising were certain American blue-grasses and lyme-grasses, while our own native blue-grass has taken well. Variegated lucerne also looked very well till discovered and completely eradicated by rabbits. A small patch of tall oat-grass established early on amongst the tussocks has thrived well, seeded during the past two seasons, and spread steadily. Different methods of sowing that appear feasible on a larger scale are being tried out, while a nursery area has been established near the homestead to propagate further material for testing.