



When repeated sprayings failed to eradicate water hyacinth in this pond near Wairoa it was decided to attempt control by drainage. When this photograph was taken the water level had been lowered several feet, but there was still a considerable amount of water hyacinth growing among the rushes and sedges.

Difficulty of Eradication

The plant is really difficult to destroy. A very small bit left unkilld is capable in a very short time of producing growth covering extensive areas of water. The difficulty experienced during the past 3 years in cleaning out water hyacinth from small ponds, lagoons, and creeks in various places in the Auckland and Poverty Bay districts gives an indication of what the position would be if the plant became established in the slow-flowing parts in some of the main rivers such as the Northern Wairoa, the Waikato, the Waipaoa, and the Manawatu. If these rivers became infested with water hyacinth, a permanent rise in the water levels in their lower reaches would hinder the drainage from many thousands of acres of land and also cause more frequent flooding. For this reason the Department of Agriculture has acted to have the plant recognised as a very dangerous noxious weed and also to attempt eradication wherever it is found.

Experience at Wairoa

Of interest in this connection is the work required to get rid of the weed from a small pond near Wairoa. Water hyacinth is easily killed with the amine salts of 2,4-D at 4lb. acid equivalent per acre. It is not so easy, however, to apply the spray to every plant over several acres of water when much of the pond has soft, muddy

banks and there are big areas of dense raupo and niggerheads. Every season for the past 3 years small colonies of plants missed in the annual spraying have grown again and multiplied at an amazing rate. The main reason for the poor control is that the water hyacinth in the pond is setting viable seed. Seeds germinate on the bottom and are protected by several inches of water from the hormone sprays. No pond where seeding is occurring has yet been cleared up by hormone spraying. Even when the bank at the end of the pond was cut through and a drain carried up into the old creek bed water hyacinth still persisted in any wet patches, enough being left to re-infest the pond if it was filled again with water. It has been decided that the only way to get rid of the plant is to drain the area completely and sow it to grass. This means, of course, the loss of the pond as a good stock water supply.

The infested pond at Shannon, though a water-supply pond, will probably have to be dealt with in the same way. The fact that water hyacinth has produced viable seed in New Zealand suggests there is a danger of this plant spreading to important drainage waterways, where its control would be very costly. Farmers and others should watch for this plant in creeks and ponds, and on no account should it be planted anywhere.

Short-rotation Ryegrass on Manawatu Hill Country

THOUGH short-rotation ryegrass has proved of great value on many well-managed dairy farms on low country, little information has been available regarding its performance at fairly high altitudes.

To secure this information a trial was laid down in 1950 at Table Flat, Apiti, in the Manawatu district, on a fairly fertile soil at an altitude of 2400ft. above sea level. On this country there are prolonged periods of cold, wet weather during winter and occasional light falls of snow. Summer rainfall is usually ample for plant growth, though conditions are sometimes dry in late summer.

The trial consisted of a comparison of the latest and earlier selections of short-rotation ryegrass, perennial ryegrass, and Italian ryegrass. The mixture sown contained 30lb. of ryegrass, 3lb. of white clover, and 4lb. of cowgrass. In addition a seeding of 20lb. of short-rotation ryegrass was compared with one of 40lb.

It was found that under these conditions short-rotation ryegrass has a fairly low winter production, but that it produces well from early spring to midsummer, though summer production is dependent on adequate rainfall.

The trial showed that to secure the best results from short-rotation ryegrass in this district the pasture must be rotationally grazed and close grazing should be avoided. The latest strains of short-rotation ryegrass were slightly more persistent than were the earlier ones. The trial showed that a mixture of short-rotation ryegrass and perennial ryegrass gave better ground cover than short-rotation ryegrass on its own. Increasing the rate of seeding from 20lb. to 40lb. did not result in a better pasture. It was also found that Italian ryegrass was not as satisfactory as short-rotation ryegrass.

The trial has shown that the use of short-rotation ryegrass is warranted on high altitude dairy farms in the Manawatu district and that it should be included in any general mixtures for this type of country where top-dressing and rotational grazing can be practised regularly. A recommended seed mixture for such country is 20lb. of perennial ryegrass, 10lb. of short-rotation ryegrass, 3lb. of white clover, 3lb. of cowgrass, 4lb. to 6lb. of cocksfoot, and 2lb. to 3lb. of timothy, certified seed being used in each case.

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