

miscellaneous lines. Plant-breeding to obtain a mosaic-resistant type is continuing. Some resistant lines appear to be quite promising flue-cured types and will be put under field trials next season. Breeding to produce black-root-rot-resistant varieties is continuing. Meanwhile, Harrison's Special 215 and Special 400 provide a reasonable degree of resistance.

FIRE-CURED TOBACCO

Last season's crop of fire-cured tobacco was very promising, both in the field and when cured. A further area grown this season made good growth and is at present being cured. This includes twelve additional varieties received from Kentucky which are being tested under local conditions.

KILNS AND CURING

Following last season's experience, further modifications were made to the experimental kiln. Shortage of staff prevented the full range of experiments as planned being carried out, but much additional information was gained, which will be added to when the leaf has been graded.

SOIL SURVEY OF TOBACCO LANDS

Work carried out by Cawthron Institute

During the past year detailed soil mapping has been continued on the alluvial soils of the Wai-iti and Upper Motueka rivers. The Wakefield-Belgrove sector of the Wai-iti Subdivision has been completed, and tobacco soil maps have been prepared for this area and made available to the tobacco companies and the Tobacco Research Station.

In the Wakefield-Belgrove sector, some 4,110 acres of alluvial soil were mapped and divided into categories based on their suitability for growing flue-cured tobacco.

Although tobacco-growing is increasing in acreage in the Wai-iti Subdivision, the soils are patchy and those more suitable for tobacco are distributed in small areas, presenting difficulties in the economic development of flue-cured tobacco culture. Partly on account of the small acreage of suitable soil available for tobacco to individual farmers, Burley tobacco, which is air-cured, is grown more extensively than in other parts of the Nelson District.

Soil mapping on the alluvial soils of Tapawera has been completed, but the preparation of tobacco soil maps must await the completion of mechanical and chemical analyses of representative soil samples. The only area of tobacco soil which now requires mapping is that of the Stanley Brook Valley. No base maps exist, but when aerial photographs become available detailed soil mapping will be carried out in this valley.

DISTRIBUTION OF TOBACCO IN 1945-46 AND 1946-47 SEASONS

Locality.	1945-46 Acreages.	1946-47. Acreages.
Riwaka-Motueka district	1,838½	1,999
Motueka Valley district	518	590½
Ngatimoti and Orinoco district	195	228½
Dovedale-Thorpe district	320½	312½
Stanley Brook - Tapawera district	256½	234
Wai-iti district	275½	339½
Waimea district	61½	51
Moutere Valley	92	160½
	3,557½	3,915½