fungous disease dry-rot (*Phoma lingam*). All plants were grown in one block, each line of seed being sown in a row 1 chain long. Plants throughout the block became infected with mosaic, thereby enabling observations on varietal resistance to be made. Counts of infected and healthy plants taken in mid-March, 1936, showed that some ten lines exhibited a degree of resistance (Table III).

Table III.—Varietal Resistance to Turnip-mosaic.

Row No.	Variety.	Strain.	Number of Plants.	Percentage of Mosaic.
9	Wilhelmsburger Otofte..	Plant Research Station, Selection No. 1	74	44·6
10	,,	Plant Research Station, Selection No. 2	87	58·6
11	,,	Canadian Strain ..	76	68·4
12	,,	Johnson's Benefactor Strain	77	57·1
13	,,	Plant Research Station, Selection No. 3	78	73·1
26	Imperial	Webb's No. 2 Strain..	57	63·2
30	White-fleshed Purple Top	Sutton's Sensation Strain*	76	0·0
41	Wilhelmsburger Otofte..	Danish Strain ..	64	78·1
52	,, ..	English Strain (Sharpe's)	63	73·0
69	Sharpe's A1	(Sharpe's)	63	71·4
	Average of the sixty other lines ..		65·4	92·7

* Sutton's Sensation is merely an improved selection of Vilmorin White-fleshed Purple Top (Hadfield and Calder, 1935). The original Vilmorin strain was not included in the seventy lines under trial.

Outstanding amongst the ten varieties showing resistance was Sutton's Sensation. Although this variety is highly resistant it is not immune, as mosaic symptoms appeared on a few plants later in the season. The seven strains of Wilhelmsburger grown in the trial all showed resistance to infection. Not only did this variety show resistance to turnip-mosaic, but it was also much less susceptible to a secondary attack by soft-rot.

Control Measures.

In New Zealand turnip-mosaic has become of economic importance only in areas of intensive cultivation. From this it would appear that the disease is most likely to become troublesome in seed-producing areas.

The following recommendations are made for the control of turnip-mosaic in crops grown for seed: (1) Dipping the leaves of plants, at the time of transplanting, in a solution of nicotine or nicotine sulphate to kill insect-vectors (concentration: Nicotine, 1 part to 2,000 parts water; nicotine sulphate, 1 part plus 4 parts soft-soap to 800 parts water). (2) Regular inspection of the crop and rogueing of all infected plants. (3) The avoidance of other cruciferous crops in the vicinity. (4) Keeping the area as free as possible from volunteer seedlings. (5) When mosaic has appeared, spraying the plants with a nicotine spray (concentration as above) to destroy aphides.