many proprietary maize mixtures available.

A manurial trial carried out on the Dargaville Demonstration Farm produced the following results:---

Plot	Treatment	Manure applied (Cwt. per ac.)	Yield (Bushels per ac.)
1	No fertiliser		49.5
2 3	Superphosphate Superphosphate	4 2 2	68.7
0	Blood and bone	2	68.7
4	Superphosphate	4	
5	Sulphate of ammonia Superphosphate	1	86.4
	30% potash salts	1	86.8
6	Superphosphate	4	
	Sulphate of ammonia 30% potash salts	1	84.0

It is clear that maize requires ample superphosphate and some nitrogen. When the soil is rich, as is the case



same time. Much of the seed maize sown is crossed with other varieties. It is of little use for a farmer to save his own seed unless he grows only one variety, and unless this is isolated from crops of other varieties by a distance of at least half a mile.

During recent seasons the Northern Wairoa Experimental and Demonstration farm has carried out extensive trials to procure suitable pure varieties for North Auckland. The results are tabulated in the above table.

Taking into account all relative factors, as well as the yield, the Demonstration Farm decided to concentrate on the variety, Johannson's White. A crop of 31 acres was grown during the 1940-41 season, and a yield of 108.6 bushels per acre has been obtained. Selected seed of this variety will be available to farmers this coming planting season. If the farmer does not favour a white variety, Prairie Queen is recommended. The next best appears to be 90 Day, provided a pure line is obtainable. Seed of other suitable varieties is difficult to procure in New Zealand.

Fertilisers

Maize makes a heavy demand on the plant food of the soil. It has been stated that on rich, very heavily fertilised soil in the United States of America, yields of up to 255 bushels per acre have been produced. While it is impossible to approach this figure in North Auckland, definite evidence exists that the better the crop is fertilised, provided cultivation is thorough, the higher will be the yield. Farm practice varies from straight superphosphate to mixtures of superphosphate, bonedust and blood and bone, while some farmers use one of the