

wheat grown, about 70 per cent. of the wheat area of the Dominion being sown in this variety. Today Solid Straw Tuscan occupies less than 20 per cent. of the total area grown, and a still further decline in acreage of this variety seems likely in the future. Solid Straw Tuscan owes its popularity to the fact that it yields well on most soil types and is extremely resistant to shaking in strong winds. On the medium and lighter class of wheat land Solid Straw Tuscan has proved an exceptionally good wheat, but on heavy land it has a marked tendency to produce too much straw, and as the straw is inclined to be weak, crops frequently lodge so badly as to make harvesting difficult. This is its main defect. Tuscan is an autumn wheat, but it can be sown in the spring. Provided it does not lodge, it is a good wheat for direct heading.

Cross 7.—This wheat was produced in New Zealand by crossing Solid Straw Tuscan with a Canadian variety known as White Fife. The berry, like that of Tuscan, is held very tightly in the chaff, and the wheat is therefore ideal for harvesting by direct heading. It matures 10 days to a fortnight earlier than Solid Straw Tuscan, which is important in some localities. The straw is shorter and stronger than that of Solid Straw Tuscan, which is an advantage on heavy land where Tuscan is liable to lodge badly. Some indication of the popularity of Cross 7 can be gauged from the fact that although it was not grown commercially in New Zealand until 1935, in 1943 it occupied about 60 per cent. of the total wheat area of the Dominion. Cross 7 is more susceptible to loose smut than Solid Straw Tuscan. It is a good winter or spring wheat.

Fife Tuscan.—Another New Zealand-bred wheat, closely related to Cross 7, its parents being Solid Straw Tuscan and White Fife. In general appearance it resembles Solid Straw Tuscan. In length and strength of straw it is midway between Cross 7 and Solid Straw Tuscan. It yields slightly better than Solid Straw Tuscan, and experience suggests that it is less subject to straw break. It is a suitable wheat for direct heading, and is recommended for areas where Solid Straw Tuscan is sown nowadays. First distributed for sowing in 1940, Fife Tuscan in four seasons became the third most popular wheat in the Dominion, occupying in the 1943-44 season 7.3 per cent. of the total area sown. It is a good winter or spring wheat and matures about a week later than Solid Straw Tuscan.

Hunters.—At one time Hunters was a popular wheat, but with the introduction of the header harvester about 12 or 15 years ago the variety de-



Wheat sown in trial plots in the Methven district to determine varietal characteristics and reaction to varying treatments.

clined rapidly in popularity. In the 1943-44 season Hunters occupied less than 5 per cent. of the total wheat area of the Dominion. On suitable country Hunters is an extremely heavy yielder, and although it has a hollow straw, it stands up fairly well on heavy land. Unfortunately, as the berry is held loosely in the chaff, there is too much risk in leaving crops to the stage when they can be direct headed. Hunters is usually cut with the binder and threshed from the stook. Sowings of Hunters nowadays are confined mainly to areas of heavy, rich ground where invariably the yields are good. Hunters probably produces the best quality straw for feeding stock, and farmers occasionally grow this variety for a stock of good-quality straw.

Because of its creeping habit of growth in the early stages Hunters takes a long time to mature and is best sown in late April or May. So far as is known it is not subject to loose smut.

Dreadnought.—Dreadnought falls into somewhat the same category as Hunters. The straw is hollow and strong, but the grain at maturity is readily shaken out by strong winds, and is not usually left for direct heading. It is customary to windrow the crop and pick it up with a header harvester or thresh it from the stook. The grain of Dreadnought is relatively large. Compared with Hunters, Dreadnought has less flag, and is

therefore superior as a cover crop for grass. The growing of Dreadnought is mainly confined to special areas of extremely good soil where it yields very well. Mainly sown in the autumn, Dreadnought is now regarded as quite a good milling wheat.

Jumbuck.—Some years ago Jumbuck was grown fairly extensively in the North Island, but in recent years the variety has declined in popularity. Jumbuck has two bad features: the straw is weak and the grain is held loosely in the chaff. Many crops are therefore inclined to lodge badly, and it is not a wheat which can be left for direct heading unless grown in sheltered localities. Although it can be sown in the autumn, most of the Jumbuck grown nowadays is usually spring sown.

Marquis.—Like Jumbuck, Marquis is a wheat which has declined in popularity in recent years. In the 1943-44 season it occupied 0.2 per cent. of the total Dominion acreage. The straw is inclined to be weak, and it is not a variety which can be recommended for direct heading. The grain is small and a mottled red and yellow. Marquis is sown principally as a spring wheat. Very good results have been recorded in baking tests with flour from Marquis wheat.

Tainui.—This is an imported wheat with a Tuscan-like habit of growth. The straw, however, is weaker than that of Tuscan, but it resists wind well. Tainui is an early-maturing