Barley Growing in Great Britain

BRITISH agricultural practices and results were closely observed by the group of New Zealand agriculturists loaned to the British Government to assist agricultural production in Great Britain during the war. In this article Mr. G. A. Holmes, leader of the group, discusses the wartime boom in barley production and his observations on cropping practices at Home should be of interest to those engaged in cereal production in the Dominion.

DURING the war there was considerable expansion in the acreage sown to barley in Great Britain. Nearly two million acres were sown in 1944, an increase of 115 per cent. above the pre-war average. This expansion, together with a considerable reduction of the alcohol content of beer and a total suspension of distilling from 1940 until October, 1944, enabled Britain last year to be self-supporting in barley for malting purposes. Most of the expansion took place on the lighter soils, either following wheat or in many cases on soils which were too light for wheat. Barley is the favourite cereal crop of the chalk downs which form a large proportion of the arable land of eastern and southern counties. The expansion of acreage has led to the sowing of barley on soils which are not really suited to the crop, and this fact, as well as the growing of the crop by farmers with little experience of it, has led to a good deal of poor-quality grain being put on the market.

Manuring

On many farms the practice of broadcasting fertiliser before drilling the crop is still carried on, and a good deal more potash is used than in this country, this fertiliser being considered a limiting factor on some of the chalk lands. Most of the larger growers drill superphosphate or mixed fertiliser with the seed and are satisfied with the results from this system of application. Lime is applied for the crop where the soil is at all acid, as failures have been noticed under such conditions where lime has not been used. Where barley follows a root crop, as in the old Norfolk four-course rotation, nitrogen may not be necessary, but recent experiments where barley follows wheat have shown very substantial increases from the application of 1cwt. per acre of nitrate of soda or sulphate of ammonia, applied rather late (May) to the growing crop. Application of nitrogen after the appearance of the tillers has actually reduced the percentage of nitrogen in the grain and very substantially increased the crop. Very late applications of nitrogen, i.e., at flowering time or later, have increased the nitrogen in the grain without an increase in the yield.

Time of Sowing

The spring weather in Britain often tends to be dry and windy, so that late-sown barley may remain stunted and give a light crop with a high percentage of steely grains. The best malting samples have been obtained from late winter sowings, while there is a growing tendency on light, sharp land to sowing during the first three weeks of December. This system has the advantage of spreading the work on the farm, as it can occupy the tractors and drills after wheat sowing is completed. It also results in the crop being about two weeks earlier in ripening, and therefore getting normally drier harvesting weather. Seedings of up to four bushels per acre may be used to offset the risk of some of the seedlings being killed out by frost-lift. On light land in Hampshire it is considered that December sowing of barley has increased the yield up to 50 per cent. by comparison with sowing in early March. It is important that the ground should be worked early and given several weeks to mellow before the barley is sown.

Seed Rates

It is still common to find farmers sowing 3½ to 4½ bushels per acre, but there is strong evidence in favour of lighter seedings, particularly where the land is reasonably clean of weeds, and where sufficient fertiliser is used.

The newer varieties of barley are strong-tillering, while the use of organo-mercury dressings practically eliminates the loss of seedlings from leaf stripe.

Varieties

Plumage-Archer has usually proved the best yielder, and the best malting quality of any variety. Although recommended for the more fertile soils, it often out-yields other varieties on the lighter soils, providing the season is a good one.

Beaven's 1943 selection was the best seen when considering quality as well as yield.

Spratt-Archer is also widely grown and may yield slightly better than Plumage-Archer in some districts. The old variety Spratt is still popular on fenland soils.

Two winter varieties—Camton and Pioneer—have been introduced, the former being purely a feeding barley and the latter of rather lower malting quality than Spratt-Archer or Plumage-Archer.

The Danish variety Kenia is not grown to any great extent, but may increase in popularity on account of its suitability for combining and its resistance to lodging.

Harvesting

Under wartime conditions of labour supply no objections have been raised by the maltsters to direct heading of barley. It is possible in most parts of England to leave the crop standing until it is dead ripe without any risk of shattering. The combine must be operated carefully, reducing the speed of the drum and opening the concave from time to time as the day gets hotter. The increase in the number of combines has led to difficulties in

Threshing barley from the windrow.