

Gluten of good quality.

Heads beardless, about  $3\frac{1}{2}$  to  $5\frac{1}{2}$  inches long.

Chaff reddish, smooth.

Straw stiff, about 45 to 50 inches long.

Ripens somewhat later than White Spelt.

The threshed grain usually contains about 70 per cent of kernel and 30 per cent of husk.

### NEW HYBRIDS OF EMMER.

A number of new hybrids have been produced by the writer of this bulletin during the last few years, by crossing different sorts of emmer with varieties of wheat. The results thus obtained are of considerable interest. Some of the new varieties produced by crossing Common Emmer with Colorado wheat are very strong and productive, but the work has not been carried on long enough to decide as to their precise value, and whether or not they are worthy of being introduced for general cultivation.

### CULTIVATION OF COMMON EMMER.

Of all the varieties of emmer and spelt described, this is the only one which is known (to any extent) to the farmers of Canada. On this account and because of the marvellous claims made for this cereal by certain interested individuals it seems best to consider carefully the methods of cultivation, the uses and the value of Common Emmer.

*Soil and Climate.*—So far as the tests at the Experimental Farms have gone, it appears that emmer requires about the same methods of cultivation as other cereals, but that it will thrive on lighter soil and will withstand drought very well. Where the rainfall in July and August is plentiful, emmer does not, as a rule, give a very large crop. This most important fact is sometimes overlooked. In some instances the success of emmer in south-western Ontario has been used as an argument for its cultivation in north-eastern Ontario, Quebec and elsewhere, where the rainfall during July and August is usually considerably greater. The value of emmer in the latter localities is, to say the least, quite doubtful, and its cultivation can be recommended only as an experiment.

*Quantity to Sow.*—Experiments conducted at the Brandon Experimental Farm show that the best results are obtained by using between 80 and 90 lbs. of grain to the acre. As much as 100 lbs. to the acre might be used to advantage in cases where the seed is entirely free from loose kernels.

*Emmer cut green.*—Common Emmer is sometimes cut green and dried for fodder. It has considerable value in this form, but great care must be exercised not to allow the crop to approach too closely to maturity before cutting, as the awns on the emmer heads sometimes make the fodder most objectionable if they are well developed.

*Ground Emmer.*—Probably the best way in which to make use of emmer is to grind the threshed grain (with husk adhering). When prepared in this manner it makes an acceptable and valuable food for animals.

### EMMER COMPARED WITH WHEAT.

Comparisons between wheat and emmer are often made in such a manner as to be extremely misleading. The bushel of emmer (at 34 lbs. or some such weight) is sometimes compared with the bushel of wheat (at 60 lbs.), and even when the grains are compared on the basis of the actual weight of crop produced, it is not customary to make any allowance for the chaff present in the emmer. It is easy by such means to show great superiority on the part of the emmer. In view of these facts a few comparisons on a fair basis may not be without value.