

EMMER AND SPELT.

The classification of the different varieties of wheat, and of those cereals closely related to wheat, has been attempted in various ways by botanists; and opinions are divided as to whether emmer and spelt can fairly be classed as varieties of wheat or not. The classification perhaps most commonly accepted recognizes wheat as occurring under three distinct species: *Triticum Polonicum*, *T. monococcum* and *T. sativum*. The last named species is divided into three sub-species as follows: *T. sativum spelta*=Spelt (Epeautre in French) *T. sativum dicoccum*=Emmer (Amidonier in French) and *T. sativum tenax*=common wheat.

For the purposes of this bulletin it is unnecessary to discuss at length the question of classification, but we may conveniently use the divisions as given above, employing the term 'spelt' for those varieties of cereals included under the sub-species *T. sativum spelta* and the term 'emmer' (a German word for which there is no English equivalent) for those coming under *T. sativum dicoccum*. For the sake of simplicity it seems desirable to include under the term 'emmer' the species *T. monococcum*, which, however distinct from a botanical point of view, certainly bears a strong resemblance to some of the varieties of *T. sativum dicoccum*.

Although closely related to true wheat, both spelt and emmer are in a commercial sense quite distinct from it, and should be compared rather with oats and barley. While it is no doubt possible to make flour from emmer and spelt, it is extremely improbable that this will ever be done in America. Meanwhile, these grains are being used for the feeding of cattle, &c and it is for such purposes that they deserve consideration.

GENERAL DESCRIPTION.

The most striking characteristic of spelt and emmer, which distinguishes them at once from all the true wheats, is the fact that the chaff adheres to the grain after it has passed through an ordinary threshing process. If the operation is very severe a proportion of the grain will be threshed out clean, but not enough to leave any doubt as to the identity of the sample. This peculiarity is due both to the tightness with which the chaff clings to the grain and to the unusual brittleness of the stem (or rachis). The grain itself is usually long, of rather large size and very hard, resembling the macaroni wheats (of which Goose is our commonest example in Canada), rather than the ordinary wheats. The straw of the emmers and spelts varies in character. In emmer it is usually rather short and thin, and sometimes is not sufficiently strong to prevent lodging of the grain. In spelt the straw is coarser.

DISTINCTIONS BETWEEN EMMER AND SPELT.

Various points of difference between emmer and spelt might be given, but it will be sufficient to mention two or three of the most striking. The heads of emmer are essentially short, compact and flat, the spikelets being set very close together; while the heads of spelt are long and open, the spikelets being set quite far apart. All the emmers are bearded, but some of the spelts are beardless. Spelt is generally of coarser type than emmer and the proportion of husk present in the threshed grain is usually larger.