of them. It looks as if the crosses which produce such plants are violent enough for the seeds, which produce them, to be of low germinating power. . . .

Grass-clumps plants are produced in the greatest number by first crosses between different types of bread wheat, and appear to be produced by crosses between bread wheats alone; at any rate, the crosses I have made between bread wheat and macaroni wheats, between bread wheat and poulard wheats, and between bread wheats and Triticum amyleum have produced none.

While neither the dwarf wheat nor the dwarf oat plants are likely to prove of economic value, they are interesting variations well worth further study. It is the intention, as opportunity offers, to use the dwarf oat plants in inheritance studies with hybrids and also to search carefully for other dwarf forms. If other workers wish to study this dwarf oat, the writer will be glad to furnish a few seeds on request.

G. H. Cutler.

When the writer was professor of cereal husbandry at the University of Saskatchewan, where it was his privilege to plan and inaugurate the cereal crop improvement experiments, an interesting discovery was made. In a plot of commercial Marquis wheat, which had not been specially selected since it was originated and multiplied for distribution, a plant of very low stature appeared—a dwarf wheat. It measured about 9 inches in height, while others of similar origin measured as high as 40 inches.

During the harvest season of 1913 the writer selected typical Marquis heads from plants that in every way appeared normal. In the winter of 1913–14, after reserving sufficient material to sow a foundation plot of one-fiftieth acre, some 200 heads were chosen from the balance to form the basis for special studies in heredity. In making the latter selection special care was exercised to take only typical heads. Each head was then thrashed and the product placed in an envelope. A head row of each consisting of 20 seeds was then sown.

Before harvest it was quite evident that some head rows possessed more variation than was usual. The widest departure from the Marquis type was revealed by head row No. 186, this row including plants ranging from 9 to 40 inches high. Other variable characters present were color of chaff, beardedness, shape of kernel, etc., but these variations were not confined to row No. 186.

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