BARLEY VARIETY TESTS AT A HIGH-ALTITUDE RANCH
NEAR OBSIDIAN, IDAHO
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The junior author of this article, if a man of seventy can be said to be junior to one in the forties, operates a ranch in the valley of the Sawtooth Mountains of Idaho. The valley is a cold one. Bush fruits, plums, and cherries cannot be grown. Few garden vegetables are possible. Even peas are an uncertain crop. Here, as at other ranches similarly located, a small acreage of cereals would be highly desirable, if these crops could be grown. Attempts to grow cereals have been made for many years at the ranch. Continuous culture and selection have resulted in some progress.

In 1926, the authors found a mutual interest in expanding the experiments. The Office of Cereal Crops and Diseases is in possession of an extensive collection of barleys from over the world. It seemed probable that among them were sorts better suited to high altitudes than the chance varieties of the Rocky Mountain region. Accordingly, in May, 1926, an assortment of varieties was sent to the ranch for planting. Due to lack of information on the behavior of barleys under such conditions, the choice of sorts was far from being the best possible. They were chosen for earliness, the belief being that early-maturing varieties might escape the fall frosts. The fallacy proved to be in the fact that they were exposed to many frosts during the summer, for at this point frost may occur on any of the 365 days.

Early varieties are common in hot arid countries where their short season enables them to escape both heat and drought. The early barleys from Mariout, Egypt, and the Mediterranean generally were quickly shown to be unsuited to conditions in the Sawtooth. The same was true of the deficiens types from the secondary plateau of Abyssinia, and of the early barleys from the plains of India. The first lot, however, did contain one variety which was of much promise in itself and which gave a suggestion of value in the choice of sorts for future tests. This was an early barley which we have named Everest, because it was secured high on Mt. Everest by the Mt. Everest expedition. This variety stood the freezes well and produced a satisfactory yield of grain.

In 1927 a new lot of barleys was selected. This time we chose sorts from the high mountains and plateau regions along with a consider-