well; a soil that is fertile so that the plants are well nourished, and practice early sowing so that the crop can develop and approach maturity before the higher summer temperatures or late drouth may occur. These are factors which together with the use of a good variety will assure the most satisfactory yield.

Blights Affect Barley Production

By
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North Dakota has taken a leading place in the production of barley in the United States. This favored position which our state now enjoys was obtained because of a combination of circumstances affecting not only the market but also the production of barley in other regions. A number of important diseases have increased in the barley growing regions and have reduced profitable returns to such a marked degree as to affect materially the desire on the part of growers to produce barley. Barley blights have attracted considerable attention in other states and these same diseases may become destructive in our own State. There are several different types of blight which affect the yield and market quality of barley. They have three avenues of approach to the growing plant, (1) through the seed, (2) through the soil from soil infestations and (3) through air currents which bring in the infecting germs from a more or less distant source. This report is largely concerned with the blights which originate from the seed but deals to some extent with blight originating from the soil.

Blight generally is considered to be some disease of the seed which causes a measure of shriveling and impairment of germination, accompanied by a reduction in the quality and value of barley on the market. However, blighted seed is not always unfit for sowing, depending upon which blight is present. A very common blight in barley is caused by the fungus Alternaria. This disease often does not shrivel the seed and apparently has no effect upon the germination. Buyers are unable to distinguish with certainty one blight from another without first making a laboratory test, requiring several days. Time will not permit this delay. Feeders of live stock know that scabbed barley is poisonous to some animals especially hogs and, as a safety measure, they will disqualify all blighted grain. The maltster cannot use blighted grain and since the feeder and the maltster are the principal purchasers of barley all blighted grain, regardless of the type, may be sold only at a discounted price.

The importance of high quality seed as a factor in barley production has been demonstrated. Also the value of seed disinfectants for seed of lower quality has been proven by experiments begun in 1944. A lot of rather light Wisconsin 38 barley was separated into three grades by the use of a grading machine; namely, a heavy grade weighing

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