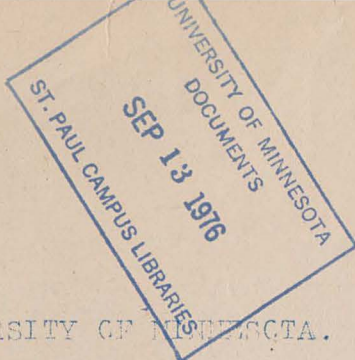


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SMUT IN WHEAT.

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Smut in wheat is caused by a fungus. Spores germinate in contact with the germinating plantlet, sending thread-like stems into the minute wheat plant. The smut plant absorbs the food designed by the host for the grain, and its spores fill the inside of the ripe kernel. Usually diseased or "bunt" kernels are larger, darker in color, but weigh less than healthy kernels of wheat. The threshing machine breaks many of these bunt kernels, scattering the spores throughout the mass of wheat, thus infesting the seed for the next year. This gives the grain a slightly darker color, and a peculiar, disagreeable odor.

We have no smut-proof varieties of wheat. Whenever wheat infested with smut is planted we can expect a smutted crop. Smut does not come from the variety, and is as infectious a disease in wheat as is measles in the human family. Threshing machines, as well as seed wheat which is infested, often carry smut from farm to farm.

Treatment. Secure from a reliable druggist good formaldehyde, sometimes called "formaline". For each pound of this liquid use 45 gallons of water. Spread the wheat on a tight floor, sprinkle on the solution, and shovel until every kernel is moistened. Let the grain stand a few hours before sowing. If sown the same day, the machine will need to be set to sow about one-fifth more than the ordinary amount. If it is not to be sown the same day, the grain should be shoveled over until dry, or spread thinly on the floor to prevent heating. One pound of formaldehyde will treat 50 to 100 bushels, the cost being only a few cents per bushel.

Smut of oats and barley is successfully treated in the same way, using more liquid to insure its soaking under the hulls and destroying the germs there. The grain drill, the threshing machine, wagon boxes, grain bins, or grain bags infested with smut spores may be cleaned by wetting with the solution.