

## News Column

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### **Common bunt (stinking smut) in wheat**

Common bunt (stinking smut) occurs in Kansas almost every year, but it is often not detected until a load of wheat is actually rejected at the elevator. This fungal disease causes moderate deformation of wheat kernels, and infected kernels often have a gray color. The infected kernels will also be filled with black powdery spores as opposed to the normal white starches of healthy kernels. The fungus produces volatile chemicals that have a strong fishy odor. This odor is readily detected in loads of grain and may persist through the milling and baking process. Clearly, this is not the smell most people would like to have filling their home when baking bread.

It is possible to confuse grain damaged by common bunt with another common problem known as black point. Symptoms of black point include a partial dark brown or black discoloration of the kernels. There is no fishy odor associated with black point and the interior of the kernels has the normal white starchy appearance. Black point is often associated with hot and wet conditions that delay harvest. These conditions can predispose the plants to colonization by decay fungi, which can discolor the kernels. These decay fungi are not aggressive pathogens and they normally are restricted to the outer layers of the kernel. Black point can also be caused by a physiological response of plants to weather during the later stages of grain fill.

Both problems can result in price discounts when marketing grain and may lead to rejection of loads of grain. The rejection of grain is more frequent with common bunt.

Common bunt is a seed-borne disease. The disease persists between seasons on seed contaminated with the black spores of the bunt fungus during harvest or subsequent grain handling. The spores will survive on the outside of the kernels until fall, when they germinate and infect the developing seedlings shortly after planting. This infection process is favored by cool and wet fall conditions.

Unfortunately, many farmers do not recognize the problem until they have loads of grain rejected by a grain elevator. There do not appear to be many options for using the rejected grain. Saving this grain for seed will increase the chances of having problems with bunt in following years. In some situations, I have heard of growers working with local feed lots to move rejected grain. The availability of this option will likely vary regionally in the state.

Management options for common bunt:

- Common bunt is most likely to be a problem when wheat has been saved for seed for several years. Renewing the seed supply every few years will greatly reduce the risk of future common bunt problems. Do not use heavily infected wheat as seed if at all possible. If infected wheat is used as seed, be sure to have it treated with a fungicide. Even a highly effective fungicide seed treatment (98% control), may not be enough to prevent price discounts or rejections in the subsequent crop.
- Fungicide seed treatments should be based on priorities set by growers. The top priority for fungicide seed treatments should be on wheat that is intended for future seed production. Products such as Gaucho XT, Vibrance Extreme, and Stamina F3 Cereals are all highly effective at controlling seed-borne diseases like common bunt and loose smut. The use of these products on wheat intended for seed production should greatly reduce the risk of severe bunt or smut problems.