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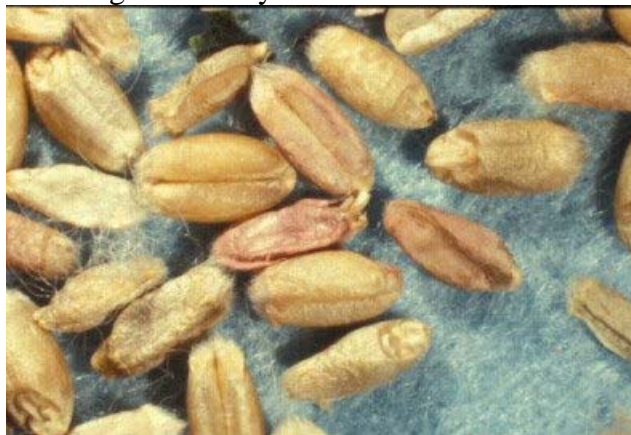
Planting Bin Run Wheat Seed is Not a Good Idea in 2008

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Increased demand for wheat seed last fall, coupled with a relatively short seed supply, forced many growers to plant their fields with bin-run wheat. Luckily low disease pressure in the 2006-2007 growing season led to a high quality grain crop. Last year growers could simply clean their wheat and feel confident that the seed quality they were planting was adequate for stand establishment. Growers considering planting saved wheat in 2008 will not be as fortunate. **To maximize wheat yields in 2009 it is imperative that growers plant certified or private (professionally prepared) seed that is true to variety, clean, and has a high germination percentage (>85%).**

The main reason to avoid planting bin-run seed in 2008 is Fusarium Head Blight (FHB) or scab. Scab was found in each of our 2008 Winter Wheat Variety testing locations. Scab was most severe at our Lancaster location where disease incidence and severity measurements were taken. Please consult the [2008 Wisconsin Winter Wheat Performance Tests Results](#) to see how your variety performed. In Northeast WI, near our Chilton site, both head scab and black point were detected at levels high enough that growers were docked.

Image 1. Scabby and Tombstone Kernels



(Photo courtesy of Laura Sweets)

Kernels from heads with scab may be shriveled or shrunken and lightweight. Some kernels may have a pink to red discoloration (Image 1). Others may be bleached or white in color. Black point or kernel smudge may be caused by a number of different fungi including species of *Alternaria*, *Fusarium* and

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Helminthosporium. Affected kernels appear black-pointed. The embryo end of the seed is discolored with a darkened pericarp and may be shriveled. The fungi that cause black point or scab of wheat seed may survive in or on the seed, thus affecting germination and contributing to seedling blight problems if seed is planted. Fungicide seed treatment and the use of quality seed will help reduce seedling blight due to infected seed but will *not* protect against subsequent head blight. Planting good quality, disease-free seed is an effective means of preventing problems from these seedborne pathogens.

If growers absolutely need to plant saved seed due to availability or other economic considerations, the following steps should be taken to increase the likelihood of establishing a legal and good wheat crop.

The first step is to determine if you can legally plant the wheat seed you saved. Today many private wheat varieties now come with statements, which buyers sign at the time of purchase, stating that they understand they are not authorized to use the harvested grain for seed. If the grower purchased a public variety most if not all currently used public winter wheat varieties are Plant Variety Protected (PVP) and though you may replant them on your own land you do not have the right to trade/sell seed of those varieties to others for planting.

Once you have determined if you can legally plant the seed you saved the next step is to clean to the wheat seed. It is important that wheat seed be cleaned to remove small and damaged seed and to eliminate weed seeds. Removing small and damaged seed will not only aid in crop establishment, but will also provide a more uniform wheat seedling stand. Removing small and damaged seed will also increase the thousand-kernel weight (TKW), which serves as a measure of seed quality. Wheat seed with TKW values greater than 30 grams tend to have increased fall tiller number and seedling vigor.

The next step is to perform a germination test. Germination tests can either be completed at home or by sending a sample to the [Wisconsin Improvement Association](#). A home test can be performed by counting out 4 sets of 100 seeds and placing each of them in a damp paper towel. Place the paper towel into a plastic bag to conserve moisture and store in a warm location out of direct sunlight. After five days count the number of germinated seeds that have both an intact root and shoot. This will give the grower an estimate of % germination. It is important to choose random seeds throughout the entire seed lot and conduct at least 4 - 100 seed counts. If germination is below 85% it is important to increase the seeding rate to compensate; however, I would caution growers from seeding any wheat with a germination test below 80%.

The last step is to assess the need for a fungicide seed treatment. A number of fungicides are labeled for use as seed treatment fungicides on winter wheat and are listed in the *Pest Management for Wisconsin Field Crops 2008* (UW-Extension A3646). These seed treatment fungicides protect germinating seed and young seedlings from seedborne and soilborne pathogens. Seed treatment fungicides will not improve germination of seed that has been injured by environmental factors and will not resurrect dead seed. Seed treatment fungicides applied this fall will not protect against FHB infection next summer. If seed with black point or scab must be used for planting, a seed treatment fungicide should be considered.

Planting bin-run wheat should be a grower's last option for seed.