

# Planting certified seed worth the extra cost

By Clark Israelsen

It appears we'll be in the fields planting crops quite early this year. Some spring wheat has already been planted in Cache Valley. It's time for growers to select seed.

Genetically pure certified seed of known identity and superior quality is the preferred source. Sometimes, however, growers are tempted to use seed from their bins or from a neighbor. The thinking is they can save a few dollars on seed costs and still get a good crop. Results from the most recent "Seed Box Survey" should convince everyone that certified seed is a great bargain, even if it does cost more per bag at planting time.

Once each decade since 1958, USU Extension, Utah Crop Improvement Association (UCIA), Utah Agricultural Experiment Station (UAES), and the Division of



Plant Industry, Utah Department of Agriculture and Food (UDAF) have conducted seed box surveys. Our purpose is to document the kind and quality of seed being planted in Utah fields. The most recent survey for small grains included 42 spring samples and 46 fall planted samples from Cache County. Our thanks to growers who kindly stopped planting so we could obtain samples and complete the survey.

In most cases the samples were taken from the box of a grain drill actually planting in the field. In some cases we collected samples from pickups or truck boxes that were parked in the field waiting to be dumped into the drill boxes. In all cases we visited the farm and in some cases we collected more than one sample from a given farm if they were planting multiple acres from different seed lots. Our protocol was to include grain from the top, middle and bottom portions of each drill box. Otherwise, small weed seeds (like field bindweed, kochia, and pigweed) would likely settle to

the bottom, or large seeds (like wild oats) would float to the top. Without proper sampling protocol a valid purity analysis could not be assessed. All samples were methodically assessed at the UDAF seed lab.

For each sample collected we conducted a germination test, assessed seed purity, identified percent and identity of weed seeds, inert matter and other crop seeds, such as wheat seeds mixed with barley seed. The typical analysis on certified seed was 99.09 percent purity, 98 percent germination, 0 percent weeds, 0 percent other crops and 0.01 percent inert matter. By comparison, farmer-saved seed was 98.34 percent pure but only an average of 86.88 percent of the seed germinated. A germination test 12 percent lower than certified seed is reason enough to only plant certified. Even more alarming was the fact that germination from some of the farmer saved seed was as low as 48 percent. Another real concern from non-certified seed came from the detection of 0.32 percent weeds, 0.26

percent other crop seed and 1.13 percent inert matter.

Much of the weed seed was barnyard grass, green foxtail, goosefoot, wild mustard, pigweed, witchgrass, wild buckwheat, quack grass, lambs quarter, and field bindweed. Most of these seeds are tiny, so on a percentage basis, a multitude of weeds were being planted for each cultivated plant such as wheat or barley. Anything saved on the initial cost of the seed was lost to reduced yield or additional herbicide costs. A purity of 98 percent doesn't look like a bad reading until one examines the daunting number of tiny weed seed that make up the remaining 2 percent.

I will confess that over the years we have planted seed on our farm that came from our own bin or from trusted neighbors. At the time we thought it was a great bargain because it cost less than certified seed. In most cases we took it to a seed conditioning mill and had it cleaned before planting, but not all growers even do that.

Seed certification has been

a priority in Utah since 1926 when we became a member of the International Crop Improvement Association. Certified seed is typically grown by local farmers in cooperation with local seed companies. It is inspected several times throughout the growing and conditioning process before it officially qualifies as certified seed and is sold to growers. UCIA personnel work closely with growers and seed companies to ensure that the farmer receives a quality product.

Years of data from our regular "Seed Box Surveys" demonstrate that certified seed is actually a savings instead of an expense.

We heartily encourage all growers to purchase proven seed of known purity and verified germination. Any perceived savings on the front end of a crop is soon lost on the back end with increased weed pressure, lower yields, and reduced quality.

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