

Postharvest handling tips

By TOMOKO OGAWA

DETERMINING the right timing for harvesting small grains is critical to get a high-quality crop. But even if you harvest wheat, rye, oats or other small grains at optimum quality, failure to handle and store the crop properly can result in deterioration and damage, hurting its value for seed, feed and food purposes.

That advice comes from several experienced growers of small grains working with Practical Farmers of Iowa this year. They say how well a combine is operated is more important than which kind of combine is used. First, a combine needs to be cleaned as thoroughly as possible to avoid other crops getting mixed in.

A challenge in combining many types of small grains is cross-contamination because of physical similarities in seeds such as triticale, rye and wheat. Even with modern equipment, cleaning and separating these grains is difficult.

Mechanical damage by a combine also must be avoided. This can largely be achieved by properly adjusting the combine — a skill learned over time. The threshing mechanism needs to be kept comfortably full. Similarly, other equipment such as wagons, bins and augers need to be cleaned thoroughly. It is most economical to avoid crops being mixed. The cost of separation quickly adds up as it requires more steps and more handling.

Store grains properly

For proper storage, it is best to do on-farm precleaning of grains before they go in the bin. A proper job with the combine might be sufficient, but if you have cleaning equipment on the farm or nearby, it's best to do that right away, says Earl Hafner, who grows several small grains near Panora.

Grain moisture may not be optimum when storing, so it's important to monitor the temperature of seed in the bin and keep the temperature from going up.

Iowa State University seed conditioning specialist Alan Gaul says to keep the average temperature of the crop in the bin within 10 to 15 degrees F of average ambient temperature, and bring the grain temperature down in stages. Cooler and dryer conditions are best for storing small grains. With 12% to 14% moisture, grains can be frozen without creating ice crystals and suffering frost damage when running air on them in bins in winter.

Gaul reminds farmers it's important to level the top surface of the grain in the bin, at least partially, shortly after filling the bin. "Peaking" of grain tends to cause quality problems as air flows up from the bottom of the bin. If the top isn't level, air tends to move around the peak causing moisture and debris accumulation at the top. That's because airflow takes the path of least resistance and exits the pile from the side of the peak. As a result, fine materials stay at the peak and become a good food source for insects and storage fungi. Thus, leveling the grain or removal of the center "core" material can provide more uniform airflow distribution.

Small-grain production is on the increase in Iowa after decades of declining acreage. On many Iowa farms, small grains haven't been grown for at least a genera-

tion; farmers face a learning curve to grow a crop that was common in their grandfather's rotation. Proper harvest and post-harvest handling is needed to ensure a high-quality crop. Many in the PFI network of farmers have experience with small grains and many more are trying these crops for the first time.

Ogawa is with Practical Farmers of Iowa.

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