

Throughout 2015, the U.S. Grains Council's *Grain News* has followed farmers as they planned, planted, monitored and, now, harvested their crops. In this issue, Greg Alber, a corn farmer from Iowa, and Adam Baldwin, a sorghum farmer from Kansas, share a harvest update on their respective crops and their plans for 2016.

## Preventative Measures Pay Off For Corn

It was a good, dry harvest season for Greg Alber on his family's Iowa farm. With ideal weather conditions, harvest finished the first week of November, two weeks ahead of the 2014 harvest. Additionally, most of the crop dried down to desired moisture levels for storage, and the corn quality is good, Alber said. This year, the farm's corn recorded test weights of 62 pounds per bushel (79.8 kilograms per hectoliter).

Now that harvest is complete, Alber is beginning to comb through data to see which management decisions worked best. Initial review indicated that spraying all of his corn acres with a fungicide to fight off Northern Corn Leaf Blight (NCLB) was a good decision, resulting in higher yields.

"I haven't fully crunched the numbers yet, but it looks like spraying fungicide gave us a 30 to 40 bushel (approximately 0.8 to 1 metric ton) advantage, especially with certain corn varieties," Alber said. "It also helped with stalk quality."

New for this year, Alber began using an unmanned aerial drone to fly over his fields and observe crop progress. During harvest time, he used it to see the tops of the corn, or tassels, and help decide which fields to harvest. He also scouted his fields for stalk strength, which contributes to an efficient and easier harvest.

"We try to be responsible with the drone and obey all the Federal Aviation Administration (FAA) rules," Alber said. "The drone helped us make decisions, but we also got some really neat photos of our crew in action during harvest."



**An image taken by a drone of corn harvest at Greg Alber's farm in Northeast Iowa.** Photo courtesy of Greg Alber.

### U.S. Grains Council

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Alber said the 2015 crop was one of his best ever. He had about 50 percent of his crop sold before harvest, with half of that delivered to the local ethanol plant right out of the field. He will hold the remainder in on-farm storage bins until scheduled delivery.

“We’ll leave it in the bins for a while and begin transporting some in December and January,” Alber said. “As for the rest of the crop, we’re going to wait out the market a bit since the basis, or difference between futures price and cash price, around here is still high.”

According to the U.S. Department of Agriculture’s (USDA’s) National Agricultural Summary released Nov. 16, 2015, 96 percent of the corn crop for grain has been harvested in the United States. This is 8 percent ahead of 2014, and 2 percent ahead of the five-year average.

Since completing their harvest, Alber and his family have been doing some fall tillage work, applying nitrogen to the soil and contemplating their crop rotation for next year.

“There is always something to do until the ground is totally frozen,” Alber said. ■

### High Sorghum Yields In Kansas

Kansas sorghum farmer Adam Baldwin had a dry harvest season, which helped him complete harvest more easily than in some past years. He finished harvesting his crop the first week of November, earlier than he expected. Typically in Kansas, sorghum plants must freeze to help dry the crop to moisture levels acceptable for harvest and storage. An early freeze helped Baldwin’s plants dry faster.

As stated in the U.S. Department of Agriculture’s (USDA’s) National Agricultural Summary released Nov. 23, 2015, 94 percent of the U.S. sorghum crop has been harvested. This is 7 percent ahead of last year, and 1 percent ahead of the five-year average.

“Overall, the crop had good yields. The quality of the grain is excellent with high test weights. Plus the crop dried down very well. It wasn’t our best crop ever, but most fields averaged above 100 bushels per acre (6.3 metric tons per hectare),” Baldwin said.

Early in the growing season, Baldwin and other farmers believed that 2015 could be the best sorghum harvest on record. But, Baldwin said his area didn’t get much late summer or early fall rains, which hurt yields.



**Kansas sorghum harvest.** Photo courtesy of Kim Baldwin

### Barley Farmer Manages Stored Grain, Awaits Contract

For North Dakota barley farmer Mark Seastrand, farm activity this time of year focuses on monitoring the barley he harvested in August. To do this, Seastrand routinely uses a grain sampling probe to test the moisture levels of his grain in his on-farm storage bins.

In addition, he uses fans to cool the grain if the temperature or moisture level rises to unfavorable levels.

The grain will remain in storage on his farm until delivery in June or July.

“The cold weather in North Dakota is favorable for on-farm storage with minimal damage,” Seastrand said. “The critical time for us is the spring and early summer when the temperature warms and the stored grain is susceptible to moisture from condensation.”

Seastrand plans to rotate his fields next spring and plant a broadleaf crop such as soybeans, wheat or sunflowers in acres where he planted barley in 2015. This change in crops is necessary to maintain proper soil health and nutrient composition in the fields.

While Seastrand is trying to plan his 2016 crop, his contract for next year is delayed as the maltsters, have not made decisions for the coming year.

“By this time of year, we typically have our contracts signed for next year, but the maltsters haven’t decided what price to offer and how many acres they will contract,” Seastrand said. ■

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Despite rainfall totals that were less than ideal for Baldwin, his sorghum crop yields were higher than the 88 bushels per acre (5.5 metric tons per hectare) average for Kansas and 77 bushels per acre (4.8 metric tons per hectare) national average as reported in the Nov. 10, 2015, USDA Crop Production report.

In the September issue of *Grain News*, Baldwin mentioned issues with sugarcane aphids. The infestation was spotty on his farm, but nonetheless he sprayed insecticide on some of his fields.



**Kansas sorghum harvest.** Photo courtesy of Kim Baldwin.

“We had some yield loss as a result, mostly in terms of standability (stalk strength),” Baldwin said. “Dry weather plus sugarcane aphids were a lot for the plants to handle.”

Now that harvest is completed, Baldwin is deciding how to best market his sorghum. About one-third of his 2015 crop was sold before harvest.

“If a guy was smart this year, he sold his crop on basis contracts,” Baldwin said. “So right now, we’re trying to wait out the market, and we currently have about two-thirds of our crop left to sell.”

Baldwin added that the current market is a great opportunity for international buyers. Last year’s high basis and record yields led to increased acres planted in 2015. He believes 2016 total sorghum acres will retract a bit, so importers should take advantage. This is on track with the Nov. 10, 2015, USDA World Agricultural Supply and Demand Estimates (WASDE) report projection for reduced sorghum acreage.

In planning for 2016, Baldwin has already begun herbicide application to help control horseweed in some of his fields. He will also begin applying fertilizer to his fields in the coming weeks and start planning his application of nitrogen in the spring before next year’s sorghum is even planted. ■

## **Basis**

Basis is the difference between the futures price and the local cash price. It is referred to as basis, basis price or price basis.

Example: May futures contract trading at \$2.96 with a local cash price of \$2.63, the basis is considered -\$0.33, which means 33 cents lower than or under May.

Factors affecting basis include transportation costs, storage costs, supply and demand, local conditions and others. These factors vary throughout the year.

Source: Iowa State University Extension and Outreach. For additional information visit [www.extension.iastate.edu/agdm/crops/html/a2-40.html](http://www.extension.iastate.edu/agdm/crops/html/a2-40.html).

## Farmers Employ Best Practices For Quality Harvest

This year, U.S. farmers steered their equipment into fields to harvest an estimated 14.6 million metric tons (574 million bushels) of sorghum and 346 million tons (13.6 billion bushels) of corn.

Farmers rely on best practices, or most effective procedures, for timing harvest and adjusting equipment to help achieve an efficient and quality grain harvest. They also know that the efforts put in early in the season to prepare fields, select seed varieties and reduce pests and weeds ultimately pay off at harvest.

Sorghum is a relatively durable grain but, like all grains, must be harvested at the right time to ensure the best possible quality. By inspecting the grain towards the bottom of the plant head, a farmer can determine maturity and set harvest schedules for individual fields.

In addition to determining grain maturity, farmers make concentrated efforts to harvest fields at optimal moisture levels. In sorghum, farmers target moisture levels of 14 percent or below for sorghum dried in the field.

For corn farmers, the weather this fall in major growing regions allowed grain to dry down in the field, resulting in lower moisture levels at harvest than last year.

“Low harvest moisture levels, such as 17 or 15 percent, have been reported in many areas, which has contributed to a higher quality grain that will handle well as it moves through storage and into marketing supply channels,” said Paul Bertels, National Corn Growers Association vice president of production and sustainability.

“The less farmers have to dry down corn in storage, the better for kernels during the storage period as they are less susceptible to cracking and further damage when they are handled and transferred through the supply chain. The downside to drier corn in the field is that kernel loss during harvest results in slightly lower yields, but it goes into storage better and comes out better.”

However, the longer mature grain stays in the field for drying, the greater the chance for weather and insects to adversely affect the quality of the grain – challenges farmers must balance carefully.

Another factor contributing to high yields and quality grain is properly adjusted harvest machinery. Sorghum farmers set harvest headers high enough to harvest grain heads while minimizing the amount of foreign material like leaves and stalks entering the machine. Corn farmers also adjust harvest headers to the proper height and make changes to the rotor speeds as needed.

This, combined with regularly cleaning of sieves to sustain adequate airflow and maintaining moderate to low speed of approximately 3 miles per hour (4.8 kilometers per hour) to minimize harvest losses, contributed to a quality grain harvest in 2015. ■



**Farmers make adjustments to a harvest header for a quality corn harvest.**



**Proper harvest header height contributes to farmers' efforts to harvest quality sorghum.** *Photo courtesy of United Sorghum Checkoff.*