



Ridin' Herd

► by **Rick Rasby**, beef specialist, University of Nebraska

Be ahead of the curve for opportunities this summer

The ethanol industry produces a byproduct that fits well as a feed source for beef cows and in feeding programs where the base ration is forage. Even though some of the plants have removed some of the fat from distillers' grains that was once used, it is still an excellent feed that can be used in diets of beef cows, in heifer development and in backgrounding cattle.

Pricing at the plant and availability

A daily/weekly/monthly price of distillers' grains is sometimes hard to find. Prices of byproducts can be obtained by calling the ethanol plant. As a general rule, the price of distillers' grains is cheapest in the summer and is highest in the late fall and early winter. It appears, at least in Nebraska, that the price follows placement of cattle in the feedlot. Most of the cows in the Midwest are spring-calving cows, and calves are weaned in the fall. Feedlot inventory is lowest in the summer months and increases in the late fall as spring-born calves are being marketed. Cow-calf producers have had difficulty buying distillers' grains in the winter at a reasonable price.

For many cow-calf producers, price and availability of distillers' grains are out of sync with when supplemental feeds are needed. Cows and calves graze pasture in the spring/summer and fall with usually only mineral and salt supplemented. The availability of distillers' grains is greatest and the price is the lowest in the summer.

The question is, will there be an opportunity this summer to economically purchase wet distillers' grains with solubles (WDGS) or modified distillers' grains with solubles (MDGS) and store them in a bunker or ag bag for use in the winter?

Storage

The three most common forms of distillers' grains are wet, dried or pelleted/cubed. The price increases from wet to cubed forms, as would be expected since there is added energy and labor associated with drying, pelleting and cubing. The cubes and pellets are not 100% distillers' grains.

The challenge with pelleting and cubing distillers' grains is the fat content. With the de-oiling process, the fat percentage in distillers' grains will be less than 10%. Studies

at the University of Nebraska looking at the feeding value of re-oiled distillers' grains cannot find much change in the feeding value when used in high-forage diets. In the past, distillers' grains have been difficult to pellet. Even the de-oiled variety is a challenge when the cube is 100% distillers'.

A company in Nebraska is making a cube that is almost 100% distillers' without many fines. It is intuitive that more distillers' grains could be included into a pellet compared to a cube because the pellet is smaller in diameter and more pressure can be applied to the die when making the pellet.

Dried distillers' grains with solubles (DDGS), pellets and cubes can be stored for long periods of time without many problems.

DDGS are less expensive than pellets or cubes. They are usually about 88%-90% dry matter and will store for long periods of time on concrete flooring or in an overhead bin.

There is potential for DDGS to "bridge" in an overhead bin. It seems that the bridging is greater when the DDGS are hot or warm when delivered into the bin. If DDGS is the product and an overhead bin is the method of storage, then make sure the product is cool when put into the bin. Dried distillers' could accumulate moisture in hot, humid conditions that have potential to cause some bridging.

For small cow-calf producers and backgrounders, WDGS and MDGS pose the most challenges. WDGS are 65% water and 35% dry matter, and MDGS are usually 50% moisture and 50% dry matter. Being able to handle that much water in a feed is a challenge.

WDGS keep for about a week in the summer and about three weeks in the winter. Storage is a little longer for MDGS.

Ethanol plants do not deliver half loads. A semi-load of WDGS is 25-30 tons. Depending on the size of the operation, it

may be difficult to use this amount of feed before its shelf-life has expired and it becomes rancid (due to the fat content in distillers' grains) and moldy.

WDGS, at 65% moisture, don't bag in plastic bags very well, but they can be bagged. However, when pressure is applied to exclude the air to provide an anaerobic environment in a bag, the bag splits. In addition, at 65% moisture, WDGS are too wet to pack in a bunker or upright silo. If air can be excluded, much like what is done when corn is ensiled, WDGS can be stored for a long period of time without becoming moldy or rancid.

With this in mind, the following rationale was used to investigate methods to purchase WDGS when they are less expensive and abundant (summertime): add some forage to the WDGS so they can be bagged or ensiled in a bunker silo to exclude air and provide an anaerobic environment to be stored for a period of time and fed in the winter when needed.

MDGS can be stored in a bag, and when pressure is used to exclude air, the bag stays intact. Also, MDGS have been stored in bunkers, covered with plastic and the plastic held down with tires with only minimal storage losses.

When adding forages to WDGS to prepare to pack into a bunker or into an ag bag, the forages were ground using a 5-inch screen and used as bulking agents. The University of Nebraska developed a byproducts storage manual that can be found on our website, <http://beef.unl.edu>. At the top of the homepage there is a navigator bar titled "Cattle Production." Put your cursor over "Cattle Production" and there will appear a drop-down menu and one of the choices will be "By Product Feed." This page is jam-packed with information on storage methods for distillers' grains, including some YouTube videos.

Final thoughts

Continue to sort out opportunities to keep feed costs low in this time of increasing input costs in the cow-calf enterprise. If there are "fire sales" of wet or modified distillers' grains this summer, be prepared to leverage this opportunity. Make sure purchases are economical and fit your operation. If you have questions on storage and/or feeding distillers' grains, contact your local extension educator for help. Take a look at the resources on the University of Nebraska beef website.

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