



## .....STRAIGHT FROM THE HORSES MOUTH

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All I can say is WOW! I could not believe the responses from last week's article. No, I didn't get my life or job threatened, but I did hear some discussion amongst farmers, and what was fun for me were the stories that came my way concerning grain sorghum, and particularly about the past. I wish I could share some of those. Of course a lot of the stories related to harvest or cleaning out the bin, sometimes with sweep augers and the itchy dust that seems to pervades the crop. But many made reference to the years when there just wasn't enough moisture for corn to come to maturity and how the milo just sat there and then when it got a drink shot up heads with a vengeance. I was asked some pretty pointed questions and I thought we should take a further look as promised in this week's edition. Let's go a bit further in talking milo.

With advances in corn genetics to tolerate dry conditions, and the adoption of glyphosate resistant corn, many farmers ask, "Why should I grow grain sorghum?" Well, here is how I would reply. Grain sorghum, or milo, has long been known as a drought tolerant crop. Sorghum shares the water use efficiency of other warm-season grass crops. While sorghum requires about 6.5" of moisture to get to the point where it will produce grain, the production with additional moisture is very efficient; accumulating about 500 lbs. of grain, or about 9 bushels per acre-inch once that point is reached.

I touched on last week that the seed cost is low compared to corn. But it goes beyond that, and I bet many people don't think about it is fitting it into a crop rotation. I need to point out that milo in a crop rotation can provide significant benefits. There is no perfect or right crop rotation, but each crop a producer can work into their production system offers flexibility of intensity and diversity, which especially helps no-till production systems approach stable and sustainable profitability. At least three crop types (grass vs broadleaf and cool season vs warm season) and long intervals of 2-4 years are needed to break some of the disease, weed and insect cycles. The growing season is different. This is where milo fits in very nicely.

Corn and sorghum are both warm season grass crops, so including both crops in a rotation may not appear to add diversity, but it does. The reality is that there is some difference in planting date (you can wait until June if you wish) some variation in herbicide options, and sorghum offers both disease and insect pest benefits. In the disease arena, one of the pathogens that can seriously plague corn producers is Goss' Wilt, a bacterial disease. I know we have fields, especially corn on corn, that have been plagued with this disease, and it is not pretty. Unfortunately fungicides offer no control for Goss' Wilt, and their use can actually make the disease worse, through weakening the natural, protective layer on the leaf, and through killing beneficial fungi, which feed on bacteria. Advantage grain sorghum!

With no pesticides effective against Goss' Wilt in corn, control measures are limited to hybrid resistance, crop rotation and residue management. Astute no-till producers know that they need all the residue they can get, so have no interest in tilling or removing residue. Milo offers a rotational crop ahead of corn that can help control Goss' Wilt. Corn rootworms and corn borers are two of the insect pests that corn producers have to manage. Crop rotations that put years a field is in corn close together intensify the need to do so. Neither insect affects or can survive on sorghum, adding another benefit to including the crop in rotations. Several of these characteristics may explain why higher corn yields have been reported at when the corn follows sorghum - than when corn follows corn. Advantage grain sorghum!

Whether you believe in Global Warming or not, it is rather apparent that it does seem that summer is turning hotter and dryer these days. That makes it a lot more provocative to choose a water-saving cereal that's been called "the camel of crops". Sorghum "originated in the northeastern quadrant of Africa, a plant scientist from Ethiopia. From there, it spread across Africa, India and even into China. Grain sorghum exhibits a lot of characteristics that make it a favorite crop for the drylands of Africa and the semi-arid tropics. It's an essential source of food in those regions, but it's not typically a big money crop. In Africa, it's grown by subsistence farmers. It's never gotten much attention from seed companies or investors. But it is nutritious. It can grow in soils that other plants won't tolerate. Above all, it doesn't need much water. Compared with corn, for instance; as I said earlier, it needs one-third less water, and it doesn't give up and wilt when rains don't come on time. It waits for moisture to arrive. We certainly could see an environment this year that will be short of water.

The most often comment is about herbicides. Alta Seeds is testing early, medium, and full-season versions of a new hybrid which feature resistance to an ALS (acetolactate synthase) herbicide called Zest that is being developed by DuPont. The sorghum hybrid contains a non-GMO "Inzen Z" herbicide-tolerant sorghum trait. Several other sorghum-breeding companies are licensing the technology from DuPont. It is true that annual grass weeds reduce U.S. sorghum yields by about 20% each year. The launch of the new "Inzen Z" herbicide-tolerant trait, plus Zest herbicide, should help farmers remediate those grass losses. OK, how about broad leaf weeds? There is a solution for that. Simply tank mix another herbicide with Zest to get post-emergence broadleaf control with a single application. Possible tank-mix options include Atrazine, Dicamba, 2,4-D, and Huskie. There you go, we just diminished one more four letter problem - weed.

In summary: milo has lower input costs; exports, basis and price are historically high; it is trendy - as a gluten free and Old World grain; great for wildlife; we can control weeds and grasses; we will bump yields by 30 to 40 % with the new Tri-Seed technology; and it does better with limited water. It is looking good for grain sorghum! How do you argue with that?

The preceding information comes from the research and personal observations of the writer which may or may not reflect the views of UNL or UNL Extension. For more further information on these or other topics contact D. A. Lienemann, UNL Extension Educator for Webster County in Red Cloud, (402) 746-3417 or email to: [dlienemann2@unl.edu](mailto:dlienemann2@unl.edu) or go to the website at: <http://www.webster.unl.edu/home>