



Northeast Panhandle Crops Conference Thursday March 2, 2023 8:30 AM until 12:00 PM Ochiltree County Expo Center-- Perryton TX

Admission

\$10 Registration Fee

Topics

Mid to Late Season Wheat Management for High Yields

Management Considerations for High Yielding Grain Sorghum

Early Season Management of Cotton-Getting Started Right

Multiple Cropping Systems Irrigation Management

3 CEUs for pesticide applicators (1 General, 2 IPM)

Lunch Provided!!

2023 Corn & Sorghum Budgets

Dr. Justin Benavidez- Texas A&M AgriLife Extension Economist

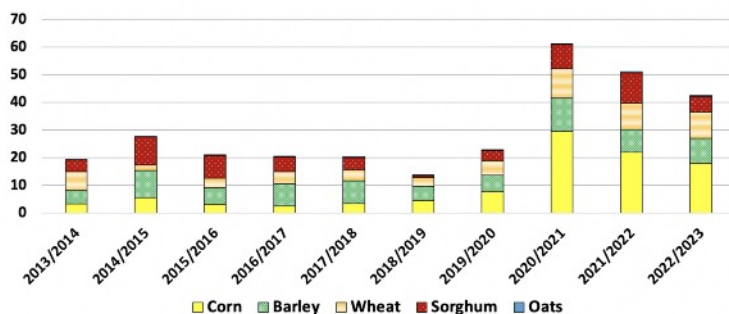
Texas A&M AgriLife Extension economists around the state are in the process of completing and posting annual budgets. These budgets provide an expectation of production expenses, revenues, and profits. Table 1 summarizes the revenue and variable cost numbers on a per-acre basis in the 2022 and 2023 extension budgets for various corn and sorghum production options in District 1 in 2022 and 2023.

	2022		2023	
	Revenue	Variable Costs	Revenue	Variable Costs
District 1 - Bt Corn for Grain, Sprinkler Irrigated	\$ 1,237.50	\$ 821.90	\$ 1,453.50	\$ 1,020.75
District 1 - Bt Corn for Grain, Strip Till	\$ 1,237.50	\$ 846.90	\$ 1,453.50	\$ 1,063.17
District 1 - Continuous Sorghum, Sprinkler Irrigated	\$ 546.60	\$ 440.92	\$ 622.93	\$ 557.92
District 1 - Seed Sorghum, Sprinkler Irrigated	\$ 1,215.45	\$ 481.81	\$ 1,427.54	\$ 611.28
District 1 - Corn Silage, Bt, Sprinkler Irrigated	\$ 1,363.50	\$ 1,051.47	\$ 1,858.41	\$ 1,289.03
District 1 - Sorghum Sudangrass, Sprinkler Irrigated, Grazing	\$ 400.00	\$ 297.92	\$ 480.00	\$ 394.40
District 1 - Sorghum Silage, Sprinkler Irrigated	\$ 954.45	\$ 683.92	\$ 1,300.89	\$ 772.99
District 1 - Sorghum Sudangrass, Dryland, Grazing	\$ 168.00	\$ 123.67	\$ 201.60	\$ 156.18
District 1 - Sorghum, Dryland, Continuous, Minimum Tillage	\$ 227.75	\$ 217.82	\$ 259.55	\$ 282.06

In the budgets, a 17.5% increase in the expected price of corn from \$5.50/bu. in 2022 to \$6.46/bu. in 2023 is more than offset by a 24.2% expected increase in the cost of production. Similarly, the expected price of sorghum is projected to rise 14% year-over-year, from \$9.11/cwt in 2022 to \$10.38/cwt in 2023. However, expected net returns are pressured further in sorghum than in corn, with variable costs increasing 26.5%.

The budgets project that operating costs for all coarse grains will increase in 2023, but why is sorghum projected to see a greater increase? Even though corn is more expensive to produce than sorghum in absolute terms, the comparative rate changes between corn and sorghum prices and production expenses matters. Where the price for both commodities did increase year-over-year, corn price increased relatively more, and where the cost of production increased for both year-over-year, they increased relatively more for sorghum. Some of the loss in price strength for sorghum are the result of a loss in Chinese demand (Figure 1), which brought the sorghum/corn price ratio out of historic norms.

Figure 1. Chinese Feed Grain Imports
 USDA, FAS, PSD 1/12/2023; Compiled by Dr. Mark Welch



As a result of the expected increase in variable costs, the expected returns from corn and sorghum grain are lower in 2023. However, there are some bright spots in expected returns for derivatives of coarse grains. Table 2 compares the expected per-acre returns above variable costs (ROVC) and returns above total costs (ROTC) for different coarse grain enterprises in District 1.

Table 2. Expected Per-Acre ROVC and ROTC

	2022		2023	
	Returns Above Variable Costs	Returns Above Total Costs	Returns Above Variable Costs	Returns Above Total Costs
District 1 - Bt Corn for Grain, Sprinkler Irrigated	\$ 415.60	\$ 206.96	\$ 432.75	\$ 200.30
District 1 - Bt Corn for Grain, Strip Till	\$ 390.60	\$ 193.31	\$ 390.33	\$ 170.05
District 1 - Continuous Sorghum, Sprinkler Irrigated	\$ 105.68	\$ (74.12)	\$ 65.01	\$ (135.23)
District 1 - Seed Sorghum, Sprinkler Irrigated	\$ 733.64	\$ 563.95	\$ 816.26	\$ 627.00
District 1 - Corn Silage, Bt, Sprinkler Irrigated	\$ 312.03	\$ 100.08	\$ 569.38	\$ 333.42
District 1 - Sorghum Sudangrass, Sprinkler Irrigated, Grazing	\$ 102.08	\$ (53.18)	\$ 85.60	\$ (88.03)
District 1 - Sorghum Silage, Sprinkler Irrigated	\$ 270.53	\$ 149.13	\$ 527.90	\$ 342.24
District 1 - Sorghum Sudangrass, Dryland, Grazing	\$ 44.33	\$ -	\$ 45.42	\$ (0.82)
District 1 - Sorghum, Dryland, Continuous, Minimum Tillage	\$ 9.93	\$ (34.94)	\$ (22.51)	\$ (69.29)

From Table 2 you can see that, despite being lower, ROVC and ROTC remain positive for corn grain. The increased expenses of sorghum production coupled with a loss in price support, relative to corn, have driven returns into the red for both irrigated and dryland production. However, there are a few crops worth paying attention to that are not crops for grain. Table 2 shows that both corn and sorghum silage returns have increased dramatically year-to-year.

The increase in silage value is largely demand driven. More dairy cattle on the high plains increases the need for locally sourced forages. Reports from around the region suggest that, because of this increased demand, silage has broken away higher from its historic relationship with grain priced on the board. Historically, we've set the price of corn silage per ton by multiplying the value of corn grain per bushel by a factor of nine and adding one to that total. For example, in 2022 the expected price of corn was \$5.50/bu., which yielded an expected corn silage price of \$50.50/ton. However this year we are being told by cattle raisers and farmers that the relationship between corn and corn silage is more likely between 10x or 11x, and in some cases we've heard values as high as 13x. As a result, we set the price of corn silage per ton locally by multiplying the expected price of corn per bushel by 10.5 and adding 1, for a price of \$68.83/ton. Keep in mind that transportation can severely limit some of the returns to silage production, but even over long distances production of silage might pay in 2023.

Breakeven Prices for 2023

One important value to be aware of in an enterprise budget is the commodity's breakeven price. This is the price at which you can expect revenue to exactly equal costs, given the expected level of production in the budget. Table 3 lists the breakeven prices to cover both the variable costs and the total costs reported in the 2023 budgets.

Table 3. Breakeven Prices to cover ROVC and ROTC

	2023	
	BE Price to Cover VC	BE Price to Cover TC
District 1 - Bt Corn for Grain, Sprinkler Irrigated (\$/bu)	\$ 4.54	\$ 5.57
District 1 - Bt Corn for Grain, Strip Till (\$/bu)	\$ 4.73	\$ 5.70
District 1 - Continuous Sorghum, Sprinkler Irrigated (\$/cwt)	\$ 9.30	\$ 12.64
District 1 - Seed Sorghum, Sprinkler Irrigated (\$/cwt)	\$ 13.58	\$ 17.79
District 1 - Corn Silage, Bt, Sprinkler Irrigated (\$/ton)	\$ 47.74	\$ 56.48
District 1 - Sorghum Sudangrass, Sprinkler Irrigated, Grazing (\$/pound)	\$ 0.49	\$ 0.71
District 1 - Sorghum Silage, Sprinkler Irrigated (\$/ton)	\$ 36.81	\$ 45.65
District 1 - Sorghum Sudangrass, Dryland, Grazing (\$/pound)	\$ 0.46	\$ 0.60
District 1 - Sorghum, Dryland, Continuous, Minimum Tillage (\$/cwt)	\$ 11.28	\$ 13.15

Using pivot irrigated sorghum in as an example, the expected yield per acre in the budget is 60 cwt. If this yield is achieved, then an acre of pivot irrigated sorghum will break even on its variable costs at a price of \$9.30/cwt. and will break even on its total costs at a price of \$12.64/cwt. Using the expected prices in the budget, it appears that, with the

exception of sorghum for grain, and irrigated sorghum sudangrass coarse grain enterprise should largely break even on their variable costs in 2023. Keep in mind that in some parts of the panhandle irrigated sorghum yields can exceed 80 cwt/acre and even 100 cwt/acre, which would influence those breakeven calculations to the positive side.

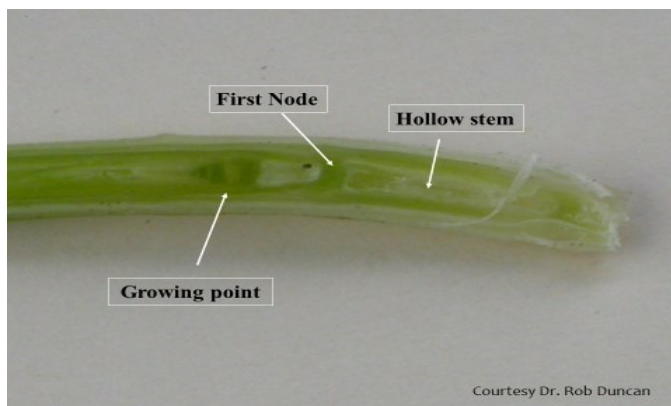
Final Comments on the Budgets

There are a couple of things to keep in mind as you use this information and as you use the budgets for your district. First, the numbers in these budgets are general guidelines for corn and sorghum enterprises in their respective districts and will not represent every operation perfectly. To build a budget that better represents your operation, AgriLife offers tools to help you build your own budgets on our website. One other thing to keep in mind is that the outlook for the 2023 coarse grain market is not yet fully formed.

Wheat ‘gain or grain’ Decision Time

In Ochiltree County around 15- 20% of the wheat grown annually is used as a dual purpose – cattle grazing and grain production. Due to the extreme dry conditions, the only wheat pasture basically available has been irrigated wheat. Now is the critical time to be planning to make the “gain or grain” decision for those irrigated fields.

The decision to pull cattle from wheat and go to grain ultimately is based on economics. The question has to be asked- Will I make more income from grazing cattle or harvesting grain?



That time to decide what happens is signaled at the first hollow stem stage of wheat. Every day the producer grazes beyond first hollow stem, they can expect anywhere from 1-5 percent grain yield loss, depending on the maturity of the wheat. A producer must decide if they are willing to take the hit on their grain yields to get more gain on their cattle.

Factors that determine the maturity and first hollow stem are day length, soil temperature, variety, planting date, fertility, and water stress. During the vegetative growth stage, the growing point of the plant, or the wheat head, remains in the crown below the soil surface, which allows cattle to graze without nipping off the head. But once that head moves above the soil line – when it breaks dormancy and begins reproductive development – it is susceptible to damage from grazing. Producers should begin checking their wheat outside the grazing area for the growing point or first hollow stem. If the wheat has transitioned, it is time to remove cattle if grain production is the end goal. (Source for this article was Dr. Jourdan Bell and Kay Ledbetter)

FEBRUARY 2023

OCHILTREE COUNTY AG NEWSLETTER

Scott Strawn
Scott Strawn-CEA-AG
Ochiltree County