Agriculture By the Numbers

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An Economic Case for Adopting Pregnancy Testing for Beef Cows

Jon T. Biermacher, Professor of Practice and Extension Livestock Development Specialist

Beef cattle specialists have promoted pregnancy testing for many years, but there is still a significant number of producers who do not use it as a management tool. In this article, I report the findings from a recent economic analysis that I conducted using animal performance data from a trial in south-central Oklahoma that was designed to demonstrate the value of pregnancy testing for a typical spring-calving cow-calf operation.

The study was initiated in the fall of 1998 at a research ranch near the community of Allen, Oklahoma, with a small herd of 30 primarily Angus-based beef cows with an average age of 7 years. The herd was originally developed from a set of first-time bred heifers that produced their first calves in early spring (February/March) of 1991. In fall 1998, researchers implemented a strict culling protocol on all cows in this herd that were pregnancy tested open at weaning. All open cows in each year from 1998 to 2001 were replaced in the fall (October/November) with bred cows 2-4 years of age. This practice was carried out on these cows through the fall of 2021.

Also in the fall of 1998, a second herd of 35 younger (2-year-old) cows was developed from a set of Angus-based first-time heifers.

In the spring of 2002, both sets of cows (mature and young) were comingled and managed as a single herd, with an average stocking rate of 11.3 acres per head, on 700 acres of predominantly native tall grass pasture. Each year, three Angus breeding bulls between 2 and 3 years old were turned out on all cows in mid-April for 60 days.

At weaning in the fall each year of the three-year (2002, 2003, 2004) study, researchers recorded cow weights, calf weaning and preconditioned weights and quantities of hay, range cubes (20%), preconditioning rations, mineral and vitamins for the cows, bulls and calves. They also recorded individual veterinary/health care regimens for cows and bulls (e.g., vaccines, fly and lice control, pregnancy tests, bull soundness exams) and hours of labor used to feed, process and check the cattle, bulls and calves. At weaning, all calves

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received a typical set of vaccinations and health care regimens and were preconditioned in a drylot on hay and ration for an average of 45 days.

The animal performance data provided the opportunity to determine the range of values of pregnancy testing between the mature herd that had a history of pregnancy testing and strict culling protocol and the young herd that did not use pregnancy testing or a strict culling regimen. In the analysis, I used the animal performance (weights and ages) and input quantity data obtained each year and combined it with 10-year (2012-2021) average market prices for inputs and prices for replacement cows, bulls, preconditioned calves and cull (slaughter) cows to calculate individual production costs, gross revenue and net return to management and farm overhead for the mature and young herds. Variable costs were calculated for feed (hay, range cubes, mineral/vitamins, preconditioning ration); veterinary/health regimens (e.g., vaccines, pregnancy tests, bull soundness exams); labor for feeding, processing and checking cattle; interest on operating capital and fixed costs for depreciation and interest for cows and bulls. Even though all open cows from both herds were retained each of the three years of the study, the expected cost for replacing open cows with 2- to 4-year-old bred cows (i.e., depreciation and interest) was included in the analysis. Sources of revenue for both herds included the sale of open cows and heifer and steer calves produced from pregnant cows and the expected revenue from the sale of calves that would have been produced from young replacement cows. The average preconditioned weight and price between heifer and steer calves were used to place revenue on these calves.

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Table 1 reports three-year average cow and calf weights by herd type, and Table 2 reports the number of cows and pregnancy statistics by herd type and year. Note that at the time of project initiation in 2002, the number of cows in the mature group had been whittled down to 25 from 30 due to the removal of cows that died or had physical infirmities (e.g., broken mouth, broken leg). During 2024, two additional cows from the mature group and one from the young group were culled for the same reasons. Table 2 clearly shows that the mature group that had received a strict culling protocol for nonpregnant cows prior to the 2002 realized 5.6% nonpregnant (open) cows, which was a significantly lower percentage compared to the young herd (26.8%) that did not receive a culling protocol.

Table 3 reports the specific cows by ear tag number that were open in each year for each herd and the interaction between years. Most surprising were four cows from the young herd (tag numbers 56, 61, 65 and 72) that were open in 2002 and bred in 2003, but found open again in 2004, which was 11% of the cows in the young herd. Although this is just a qualitative finding from this one set of cows, I do think this result is counterintuitive to the mindset that it is okay to give young open cows a second chance.

Production costs, revenue and net return by herd type are reported in Table 4. The difference in net return between the herd that used pregnancy testing and strict culling of open cows (mature herd) and the herd that did not use pregnancy testing and adhered to strict culling (young

Table 1. Three-year Average Statistics for Cows and Calves by Herd Type

	3-year Average	
Variable	**Mature**	**Young**
Cow weight at weaning (lb/hd)	1,291	1,217
Cow age (years)	12	5
Number of heifers	12.00	14.67
Number of steers	11.33	10.33
Heifer preconditioned weight (lb/hd)	535	478
Steer preconditioned weight (lb/hd)	561	550

Table 2. Number of cows, open cows, bred cows, and open cows as a percent of total cows by year and herd type

Variable of interest	2002	2003	2004	Avg
Mature cows	25	25	23	24.3
Young cows	35	35	34	34.7
Mature cows, open	2	0	2	1.3
Young cows, open	9	13	6	9.3
Mature cows, bred	23	25	21	23.0
Young cows, bred	26	22	28	25.3
Mature open cows as a % of total mature cows	8.0%	0.0%	8.7%	5.6%
Young open cows as a % of total young cows	25.7%	37.1%	17.6%	26.8%

Note, all cows were pregnancy tested via palpation and subsequent blood test in the fall at weaning by a large animal veterinarian.

Table 3. Open Cow Identification by Herd Type, Year and Year-by-year Interaction

Year	ID (Mature)	ID (Young)
2002	13,22	41,52,53,56,60,61,65,71,72
2003		38,41,51,54,55,57,59,63,66,68,70,72,75
2004	6,25	51,56,61,64,65,72
2002, 2003		41,72
2002, 2004		56,61,65,72
2003, 2004		51,72
2002, 2003, 2004		72

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herd) was $78/cow. This reflects the value of the $10/cow cost of pregnancy testing used in this analysis. The primary reason for this difference in profitability is due to the number of open cows between the mature and young herds (Table 2). Currently, the cost of pregnancy testing beef cows ranges from $7 to $20/cow, depending on the method. Even for a higher range of cost of $20/cow, the value of pregnancy found in this study would be $68/cow.

Knowing pregnancy status of a herd in the fall at weaning offers producers more time to source suitable replacements that fit their operation's genetics and management plan. Waiting until the end of calving season to see which cows are open can impact cash flow expectations and force producers to source replacements that are not ideal. This can add unwanted additional expenses and put pressure on labor resources.

Please feel free to contact me with any questions at jon.biermacher@ndsu.edu.

Table 4. Three-year average production costs, revenue and net return to management and farm overhead herd type

Economic Variable	Mature	Young
Feed cost ($/cow)	181	182
Vet/health cost ($/cow)	33	31
Pasture rent ($/cow)	178	178
Labor costs ($/cow)	172	173
Interest on operating capital ($/cow)	48	48
Total variable costs ($/cow)	613	612
Depreciation and interest costs ($/cow)	141	144
Total costs ($/cow)	754	757
Calf price ($/lb)	2.18	2.16
Gross revenue ($/cow)	1,197	1,106
Net return ($/cow)	440	352
Difference in net return ($/cow)	89	
Difference in net return (%)	20%	

Farm Asset and Equity Returns Show Long Downward Trend

Bryon J Parman, Assistant Professor/Extension Agricultural Finance Specialist

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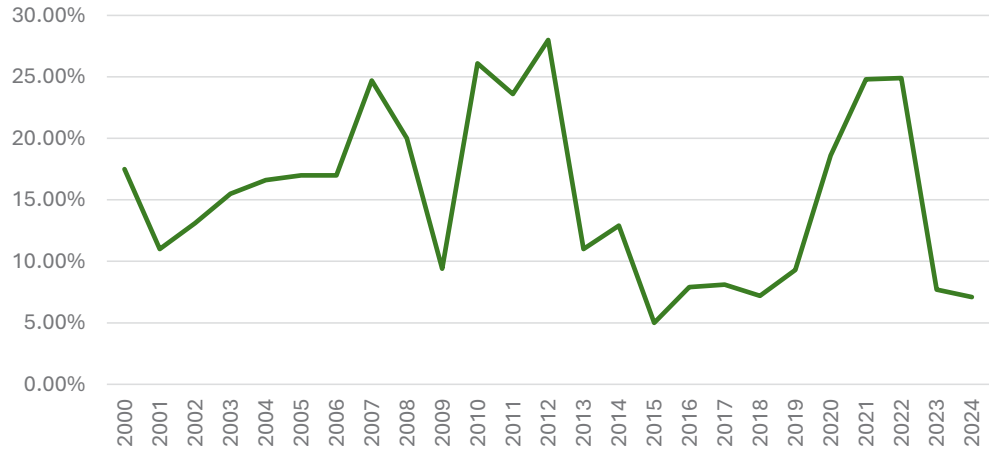
According to the U.S. Department of Agriculture, agricultural assets in the U.S. totaled $4.22 trillion in 2024. This includes land, machinery, livestock and crop inventories. Of the $4.22 trillion, $3.52 trillion was farmland, and $356 billion was tied up in machinery and vehicles. This indicates that farmland made up over 83% of total assets, while machinery made up nearly 8.5% of total assets. Machinery was the second-largest category behind land in total percentage.

Typically, income-generating assets are evaluated based on the amount of revenue they produce. While agricultural land is different than other commercial real estate examples since it does not really depreciate, crop land is worth more than pasture land for a reason. Therefore, financially speaking, there is a limit based upon income generation to how high farmland prices should be. Another difference between most commercial real estate investments and farmland is the emotional or psychological factor. The impact of nonfinancial factors can be difficult to quantify, but they are certainly significant.

Figure 1: Rate of Return on Assets and Equity. Data from the FINBIN Data Set

Figure 2: Net Farm Income to Gross Farm Income Ratio. Data from the FINBIN Data Set



However, what we have been witnessing in agriculture over the last few years is that land and equipment prices are growing faster than incomes. Figure 1 shows the rates of return on assets and equity since 2000 using data from the University of Minnesota's Center for Farm Financial Management, with most of the observations coming from Minnesota and North Dakota. Despite 2022 being a near-record net farm income year (Figure 2) and 2021 being very strong, rates of return on assets during those years failed to even reach 10%. In fact, 2007 had a net farm income to gross farm income ratio similar to 2021 and 2022, and yet the rate of return on assets was 12.5% back then as opposed to 9.2% in 2022.

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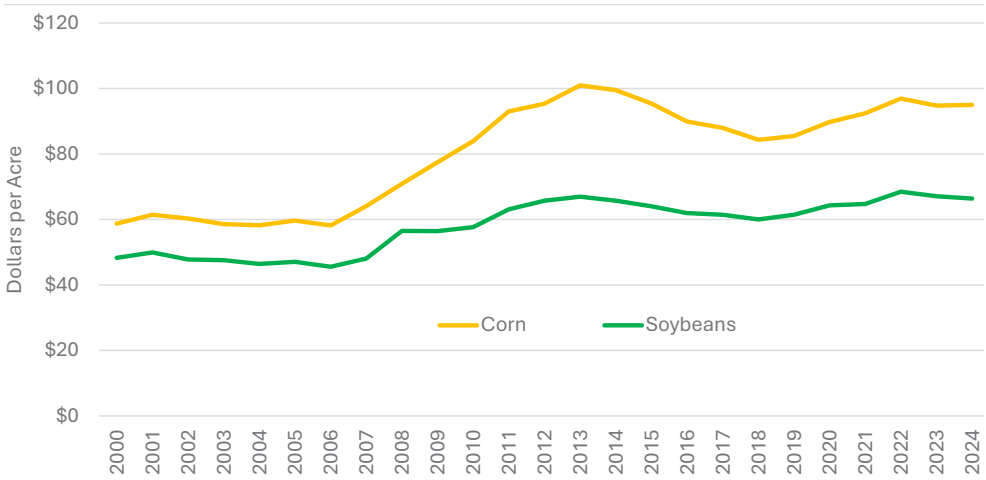
Farm Asset and Equity Returns Show Long Downward Trend – continued from page 5

Recent equipment price trends have also been driving down the rates of return on assets and equity. Figure 3 shows inflation-adjusted machinery costs per acre, excluding fuel and lube, for growing corn and soybeans across the FINBIN dataset. After a rapid increase in machinery costs per acre from 2007 to 2013, inflation-adjusted machinery costs declined from 2014 to 2018. However, the trend reversed sharply from 2019 to 2022, where per-acre machinery costs for corn went from an inflation-adjusted $85 to $97, and soybean production went from $61 per acre to $68.5. Per-acre machinery costs for those crops have fallen a little, but are still well above where they were five years ago, even when adjusting for inflation.

Figure 3: Inflation-adjusted Machinery Costs per Acre for Corn and Soybeans Excluding Fuel and Lube



What this indicates is that over most of the last decade, investments made in land and equipment have not yielded the same income potential they did 10 years ago. While per-acre equipment costs, when adjusting for inflation, have not hit record highs, land has. Additionally, when net farm incomes were depressed from 2015 to 2019, equipment prices per acre actually declined, while land prices mostly stayed flat. However, when land prices make up over 83% of total assets and equipment makes up 8.5%, whatever happens with farmland prices is mostly what drives rates of return on agricultural assets.

This situation does not have an easy resolution. One might think that a sustained increase in net farm incomes would correct this, improving the overall rates of returns on assets and equity. However, we have seen somewhat recently that short- or medium-term increases in net farm income would likely result in a rapid rise in land and equipment prices at a faster rate than income growth. The other possibility is declines in land and per-acre machinery prices, but we saw that from 2014 to 2020, net farm incomes were low, and land prices did not appreciably decline.

What we have not seen recently are lower net farm incomes in a higher interest rate environment. While 6%-8% interest may not be incredibly high historically (like the 1980s), it is substantially above where rates were from about 2012 to 2023. Many of the financed land purchases made during that period were locked into a low interest rate. Also, other investment tools like bonds or CDs had very low yields, making them less attractive. Thus, if someone was benchmarking the rates of return on agricultural assets relative to interest rates, the low rates of return from 2014 to 2020 were not all that low.

However, with interest rates where they are now, rates of return on assets and equity in the low single digits are a bit more alarming. Also, while a large share of the more recent land purchases had a substantial percentage paid down in cash, a period of lower net farm incomes and higher interest rates will drain much of the available capital out of the greater ag economy, making the prevailing interest rate a bigger factor in future purchases.

It should be noted, however, that capital appreciation is a big factor in farm land purchases. While income alone impacts cash flows, market value appreciation impacts wealth and potential borrowing power, and so far, land purchases made over the last 5-10 years have seen substantial growth in market values. However, a question lingering is what is driving this growth, because to a large extent, it is not yearly net income-driven.

Soybean Basis Levels Drop Before Harvest

Frayne Olson, Crop Economist/Marketing Specialist

Harvest soybean basis levels in the region have dropped significantly in the past several weeks. Current basis levels range from $-1.50 to $-1.70 per bushel. In contrast, typical harvest soybean basis levels in 2023 were $-0.80 to $-0.90 per bushel. In 2024, typical levels were between $-0.90 to $-1.00 per bushel.

These significantly lower soybean basis levels are a result of two interconnected issues. The first is the expectation for large spring wheat, corn and soybean production in the area creating potential shortages of commercial storage and grain handling capacity during harvest. The second is very slow new crop U.S. soybean export sales levels.

Basis is the difference between the cash price and futures price for a grain, or other commodity, for a specific location and delivery period. Basis is how the cash market directs the flow of grain over time and across locations. The goal is to ensure the desired amount of grain is sent and received at the correct locations and at the right time.

When basis levels for a certain location and delivery period are lower than normal, the cash market is signaling that the expected receipt, or inflow, of grain is greater than the expected use, or outflow, of grain. This provides an incentive to either store the grain for future delivery and/or deliver the grain to another location that needs the grain more urgently.

This is not the first time that the region is expecting to simultaneously produce a large spring wheat, corn and soybean crop. However, the presales for grain exports are different this year, and trade flows are changing due to trade negotiations.

Table 1 shows the U.S. export sales for corn and soybeans for the next marketing year, by country. The USDA tracks export sales by marketing year. The marketing year for corn and soybeans begins on Sept. 1 and ends on Aug. 31 each year. Table 1 compares the level of presales for corn and soybeans that have been contracted for delivery before harvest and a new marketing year begins. The 2025/26 marketing year represents the crop that will be harvested this fall, in 2025, and marketed over the next 12 months. The 2024/25 marketing year values are the level of presales for the same time period last year.

The 2025/26 presales for corn are almost double the amount reported for the same time last year. Mexico has historically been the largest export destination for U.S. corn, with Japan being the second-largest buyer.

In contrast, presales for 2025/26 soybeans are about 30% lower than last year. Last year at this time, China had already purchased about 2.9 million metric tons of U.S. soybeans. In contrast, China has not officially purchased any U.S. soybeans this year. Typically, China is the largest buyer of U.S. soybeans and Mexico is the second-largest.

This shift in export sales has a significant impact on the flow of grain and the relative incentives to store or sell grain at harvest. Typically, there is an incentive for farmers in the region to sell soybeans during

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Table 1. U.S Export Sales for the Next Marketing Year, by Country, in 1,000 Metric Tons.

	Corn (1,000 Metric Tons)		Soybean (1,000 Metric Tons)	
Country	2024/25 (08-22-24)	2025/26 (08-21-25)	2024/25 (08-22-24)	2025/26 (08-21-25)
Mexico	**4,892.6**	**6,373.2**	**940.2**	**1,830.3**
Japan	1,140.3	2,208.4	220.6	205.2
China	**0.0**	**0.0**	**2,894.0**	**0.0**
Taiwan	78.6	271.4	142.9	379.5
Spain	0.0	445.0	60.0	146.0
South Korea	63.0	1,140.0	5.5	0.1
ROW	2,436.2	7,187.4	4,488.1	3,765.3
Total	**9,418.5**	**18,774.9**	**10,157.9**	**7,227.7**

USDA Export Sales Database. ROW = Rest of World

Soybean Basis Levels Drop Before Harvest

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harvest and store corn and spring wheat. However, this year, there are incentives to store soybeans and sell corn during harvest.

If the corn harvest goes smoothly and corn seed moisture levels are low, so no high-temperature drying is required, farm managers and grain elevators should be able to effectively manage the flow of grain at harvest. This will relieve pressure on both commercial and on-farm storage capacity and provide farmers with needed cash flow.

However, if corn harvest is slowed due to wet harvest conditions or early snowfall, grain movements will also be slower. Commercial and on-farm storage capacity will become very important. Both temporary storage in silage bags and uncovered ground piles will be common. Managing grain quality with these storage systems can be difficult.

Another question is how long farm managers or grain elevators will need to store soybeans. The simple answer is until soybean exports recover.

U.S. soybean export sales have a very seasonal pattern. Figure 1 shows the historical export sales, by week, for the past five years. Export sales normally accelerate beginning in mid-September, peak in mid-November and then slowly decline until early February.

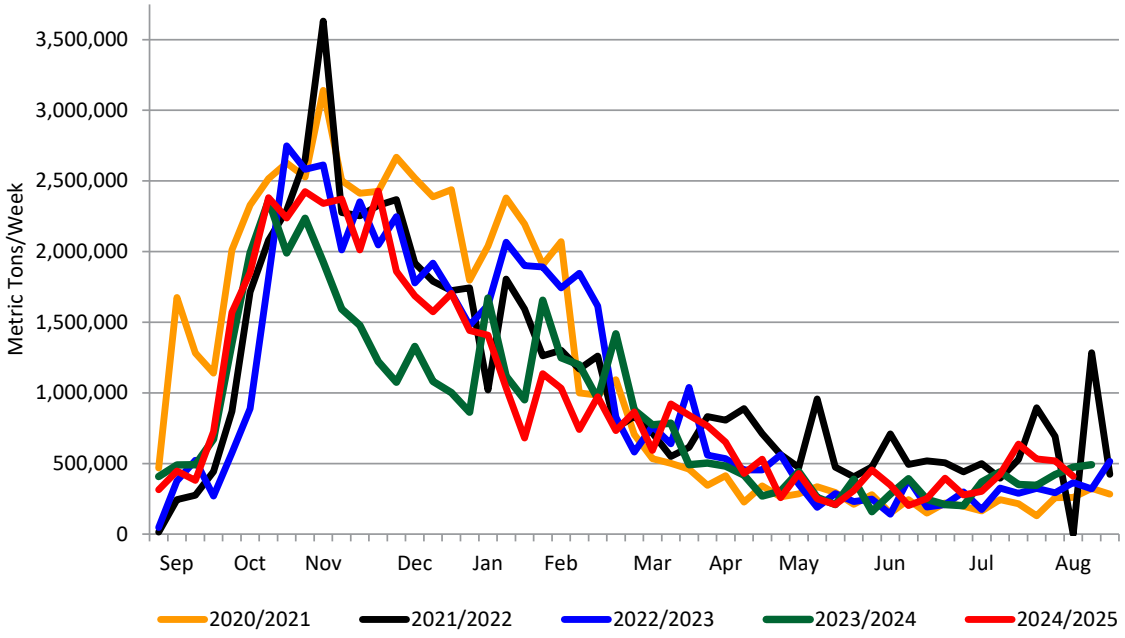
The U.S. and China are still trying to negotiate a new trade agreement. The threat of very high tariffs between the two countries is still present. There have been two 90-day extensions to the proposed tariff increases to allow for continued negotiations. The current extension will expire on Nov. 10, 2025.

The concern from soybean traders is that China will not purchase significant amounts of U.S. soybeans until there is an agreement on new trade terms. It is unlikely that U.S. and Chinese negotiators will come to an agreement before the Nov. 10 deadline. If delays occur, the window for peak Chinese soybean purchases is shorter and total export sales may not reach expected levels.

It is difficult for the U.S. to find a single market, or even several smaller markets, large enough to offset lost soybean sales to China. Whole soybeans must be crushed, or processed, into soy meal and soy oil so they can be used as livestock feed, cooking oil or renewable fuel.

China is the world's largest oilseed crusher and accounts for almost 30% of total global soybean crushing. The U.S., Brazil and Argentina are second-, third- and fourth-largest, respectively. These four countries make up about 75% of all the soybean crushing in the world, based on USDA estimates. Developing alternative markets for U.S. soybeans will take time and large investments in expanding crushing capacity.

Figure 1 – U.S. Soybean Export Sales by Week, in Metric Tons



USDA Export Sales Database

New ARC and PLC Changes

Ron Haugen, Farm Management Specialist

The reconciliation bill "OBBB" that was recently passed by Congress has introduced significant changes to the Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC) programs for the 2025 crop year. These changes include increased reference prices for PLC, higher coverage levels for ARC and automatic enrollment in the higher-paying program for 2025.

Increased Statutory Reference Prices:

The bill significantly raises the statutory reference prices for several commodities. For example, wheat increases from $5.50 to $6.35 per bushel, corn from $3.70 to $4.10 per bushel and soybeans from $8.40 to $10.00 per bushel. Starting in 2031, statutory reference prices are proposed to increase annually by 0.5%.

Escalator Clause:

The escalator clause, which allows reference prices to rise when market prices are high, has been adjusted. The threshold for triggering the escalator is now 88% of the 5-year Olympic average price, up from 85%.

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Table 1. Change in Statutory Reference Prices

Commodity	Unit	OLD 2025 Reference Price	NEW 2025 Reference Price
Wheat	Bushel	$5.50	$6.35
Barley	Bushel	$4.95	$5.45
Oats	Bushel	$2.40	$2.65
Peanuts	Pound	$0.2675	$0.3150
Corn	Bushel	$3.70	$4.10
Grain Sorghum	Bushel	$3.95	$4.40
Soybeans	Bushel	$8.40	$10.00
Dry Peas	Pound	$0.1100	$0.1310
Lentils	Pound	$0.1997	$0.2375
Canola	Pound	$0.2015	$0.2375
Large Chickpeas	Pound	$0.2154	$0.2565
Small Chickpeas	Pound	$0.1904	$0.2265
Sunflower Seed	Pound	$0.2015	$0.2375
Flaxseed	Bushel	$11.2840	$13.3000
Mustard Seed	Pound	$0.2015	$0.2375
Rapeseed	Pound	$0.2015	$0.2375
Safflower	Pound	$0.2015	$0.2375
Crambe	Pound	$0.2015	$0.2375
Sesame Seed	Pound	$0.2015	$0.2375
Seed Cotton	Pound	$0.3670	$0.4200
Rice (long grain)	Pound	$0.1400	$0.1690
Rice (med/short grain)	Pound	$0.1400	$0.1690
Rice (temperate japonica)	Pound	$0.1730	$0.2433

Source: USDA

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New ARC and PLC Changes — continued from page 9

Effective Reference Price Changes:

The *effective* reference price formula has been updated to use 88% of the historical Olympic average price instead of 85%. This change aims to make effective reference prices more responsive to high price environments.

Agricultural Risk Coverage (ARC) Increases:

The increases to statutory and effective reference prices also impact ARC programs. The ARC County (ARC-CO) coverage level has been increased from 86% to 90%. The maximum payment under ARC-CO has increased from 10% to 12% of the benchmark revenue.

Automatic Enrollment for 2025:

For the 2025 crop year only, producers will receive the higher of either the ARC or PLC payment they would have received, regardless of their current program election. This is intended to maximize potential support. The annual enrollment resumes in 2026. Producers will once again make annual enrollment decisions for PLC and ARC-CO.

Payment Timing:

Changes are retroactive to the 2025 crop year. Payments will not be issued until October 2026. Payments for the 2024 crop year (if any) will be paid in October 2025.

General Changes:

From 2031 onward, statutory reference prices will see an annual 0.5% increase, unless altered by future laws. Loan rates for covered commodities are increased by 10%.

There is a one-time chance to allocate up to 30 million new base acres nationally for eligible producers in 2026.

Increased crop insurance benefits:

Individual policy subsidy rates for basic and optional units are increased. There is additional increased premium support for beginning farmers.

Supplemental Coverage Option (SCO) maximum coverage increases to 90%. Producers can now use SCO while also being enrolled in ARC-CO for 2026 and beyond. Previously, they had to be enrolled in PLC to use SCO.

Table 2. 2025 Effective Reference Price Calculations

Based on 2019/20-2023/24 Market Year Average (MYA) Prices and Reference Prices - August 12, 2025 1/

A	B	C	D	E	F	G	H	I	J	K	L Lower of [E] or [Higher of D or K]
Commodity	Marketing Year	Unit	2025 Reference Price	115% of 2025 Reference Price	2019/20 MYA Price	2020/21 MYA Price	2021/22 MYA Price	2022/23 MYA Price	2023/24 MYA Price	88% of 5-year avg, dropping high and low prices	2025 Effective Reference Price
Wheat	Jun. 1-May 31	Bushel	$6.35	$7.30	~~$4.58~~	$5.05	$7.63	~~$8.83~~	$6.96	$5.76	**$6.35**
Barley	Jun. 1-May 31	Bushel	$5.45	$6.27	~~$4.69~~	$4.75	$5.31	~~$7.40~~	$7.39	$5.12	**$5.45**
Oats	Jun. 1-May 31	Bushel	$2.65	$3.05	$2.82	~~$2.77~~	$4.55	~~$4.57~~	$3.92	$3.31	**$3.05**
Peanuts	Aug. 1-Jul. 31	Pound	$0.3150	$0.3623	~~$0.2050~~	$0.2100	$0.2430	$0.2680	~~$0.2690~~	$0.2115	**$0.3150**
Corn	Sep. 1-Aug. 31	Bushel	$4.10	$4.72	~~$3.56~~	$4.53	$6.00	~~$6.54~~	$4.55	$4.42	**$4.42**
Grain Sorghum	Sep. 1-Aug. 31	Bushel	$4.40	$5.06	~~$3.34~~	$5.04	~~$5.94~~	$5.94	$4.93	$4.67	**$4.67**
Soybeans	Sep. 1-Aug. 31	Bushel	$10.00	$11.50	~~$8.57~~	$10.80	$13.30	~~$14.20~~	$12.40	$10.71	**$10.71**
Dry Peas	Jul. 1-Jun. 30	Pound	$0.1310	$0.1507	~~$0.0964~~	$0.0984	~~$0.1620~~	$0.1600	$0.1520	$0.1204	**$0.1310**
Lentils	Jul. 1-Jun. 30	Pound	$0.2375	$0.2731	~~$0.1570~~	$0.1820	$0.3560	$0.3440	~~$0.4040~~	$0.2587	**$0.2587**
Canola	Jul. 1-Jun. 30	Pound	$0.2375	$0.2731	~~$0.1480~~	$0.1840	~~$0.3290~~	$0.2980	$0.2430	$0.2127	**$0.2375**
Large Chickpeas	Sep. 1-Aug. 31	Pound	$0.2565	$0.2950	~~$0.1780~~	$0.2330	$0.3650	$0.3560	~~$0.3690~~	$0.2798	**$0.2798**
Small Chickpeas	Sep. 1-Aug. 31	Pound	$0.2265	$0.2605	~~$0.1500~~	$0.2020	$0.3330	$0.3270	~~$0.3570~~	$0.2529	**$0.2529**
Sunflower Seed	Sep. 1-Aug. 31	Pound	$0.2375	$0.2731	~~$0.1950~~	$0.2130	~~$0.3290~~	$0.2780	$0.2120	$0.2062	**$0.2375**
Flaxseed	Jul. 1-Jun. 30	Bushel	$13.3000	$15.2950	~~$9.1500~~	$11.1000	~~$25.9000~~	$17.5000	$12.1000	$11.9387	**$13.3000**
Mustard Seed	Sep. 1-Aug. 31	Pound	$0.2375	$0.2731	~~$0.2660~~	$0.2670	$0.3110	$0.4210	~~$0.5790~~	$0.2930	**$0.2731**
Rapeseed	Jul. 1-Jun. 30	Pound	$0.2375	$0.2731	$0.2020	~~$0.2260~~	~~$0.1880~~	$0.2160	$0.2000	$0.1813	**$0.2375**
Safflower	Sep. 1-Aug. 31	Pound	$0.2375	$0.2731	~~$0.1990~~	$0.2150	$0.2550	$0.3330	~~$0.3600~~	$0.2355	**$0.2375**
Crambe	Sep. 1-Aug. 31	Pound	$0.2375	$0.2731	$0.2420	~~$0.2710~~	~~$0.2260~~	$0.2590	$0.2400	$0.2174	**$0.2375**
Sesame Seed	Sep. 1-Aug. 31	Pound	$0.2375	$0.2731	~~$0.3700~~	$0.3700	$0.3900	~~$0.4100~~	$0.4000	$0.3403	**$0.2731**
Seed Cotton 2/	Aug. 1-Jul. 31	Pound	$0.4200	$0.4830	~~$0.3058~~	$0.3393	~~$0.4675~~	$0.4533	$0.3949	$0.3483	**$0.4200**
Rice (long grain)	Aug. 1-Jul. 31	Pound	$0.1690	$0.1944	~~$0.1200~~	$0.1260	$0.1360	~~$0.1670~~	$0.1590	$0.1235	**$0.1690**
Rice (med/short grain) 3/	Aug. 1-Jul. 31	Pound	$0.1690	$0.1944	~~$0.1160~~	$0.1310	$0.1390	~~$0.1820~~	$0.1720	$0.1297	**$0.1690**
Rice (temperate japonica)	Oct. 1-Sep. 30	Pound	$0.2433	$0.2798	~~$0.2160~~	$0.2260	$0.3190	~~$0.4090~~	$0.2230	$0.2253	**$0.2433**

MYA Price=national average price received by producers during the 12-month marketing year.

1/ Source for MYA Price: National Agricultural Statistics Service (NASS), Agricultural Prices.

2/ Seed cotton price is a weighted average of upland cotton and cottonseed prices.

3/ Medium/short grain excludes temperate japonica rice.

Source: USDA

Midyear Cattle Inventory Report Highlights Tight Feeder Cattle Supply

Tim Petry, Extension Livestock Marketing Specialist

NDSU

The U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) released the semiannual Cattle Inventory Report on July 25. The current and past reports are available online at https://usda.library.cornell.edu/concern/publications/h702q636h.

The July Cattle Inventory Report is usually important because it gives a midyear indication of possible changes to look forward to in cattle numbers, beef production and market price impact. The July report is less detailed and provides only total U.S. cattle inventory numbers. The January cattle report provides a more detailed state-by-state breakdown, which allows regional comparisons and weather-related changes to be documented.

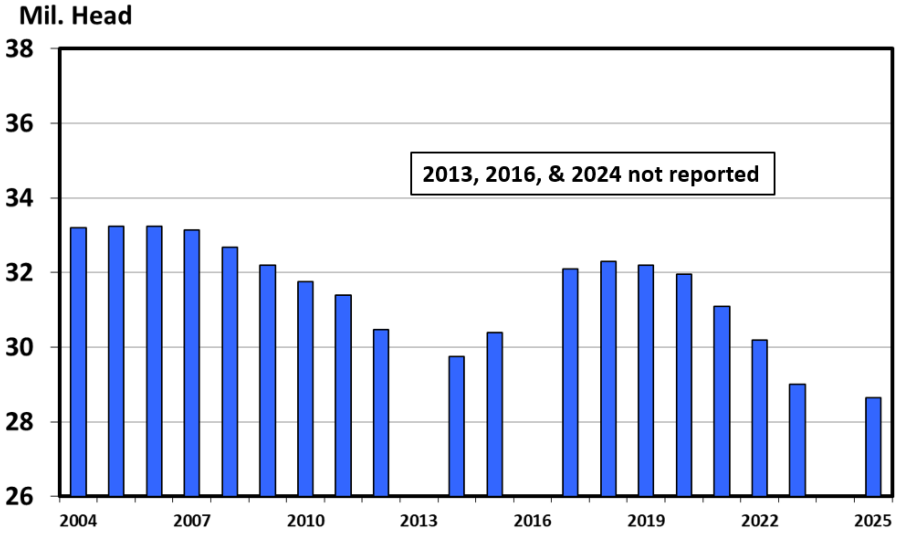
However, this year's report was somewhat less useful to cattle market analysts because NASS did not issue the report in 2024 due to budget constraints. So, a valuable year-over-year comparison, especially when beef cow herd rebuilding may have started, was not possible.

That highlights the need for the cattle industry to make sure that the U.S. Congress knows how important it is to provide funding for these USDA reports for cattle producers to make informed decisions.

NASS pegged the July 1 U.S. beef cow herd at 28.65 million head, down 350,000 head from the 29 million in 2023. The January 2025 cattle report confirmed the beef cow herd was lower in 2024, but what is unknown is if it may have increased slightly from July 2024 to 2025.

Continued on page 12.

July 1 Beef Cow Inventory — U.S., Annual



Source: USDA NASS

Midyear Cattle Inventory Report Highlights Tight Feeder Cattle Supply – continued from page 11

The July 1 beef cow estimate is usually higher than the previous Jan. 1 estimate with first calf heifers calving, but this year's 2.8% increase has historically meant some expansion may have occurred. Improved moisture conditions in several important beef cattle-producing regions, record-high cattle prices and beef cow slaughter down 17% this year may have been conducive to some beef herd rebuilding.

USDA reported 18% of cattle resided in drought conditions on July 1, 2025, compared to 40% in 2023.

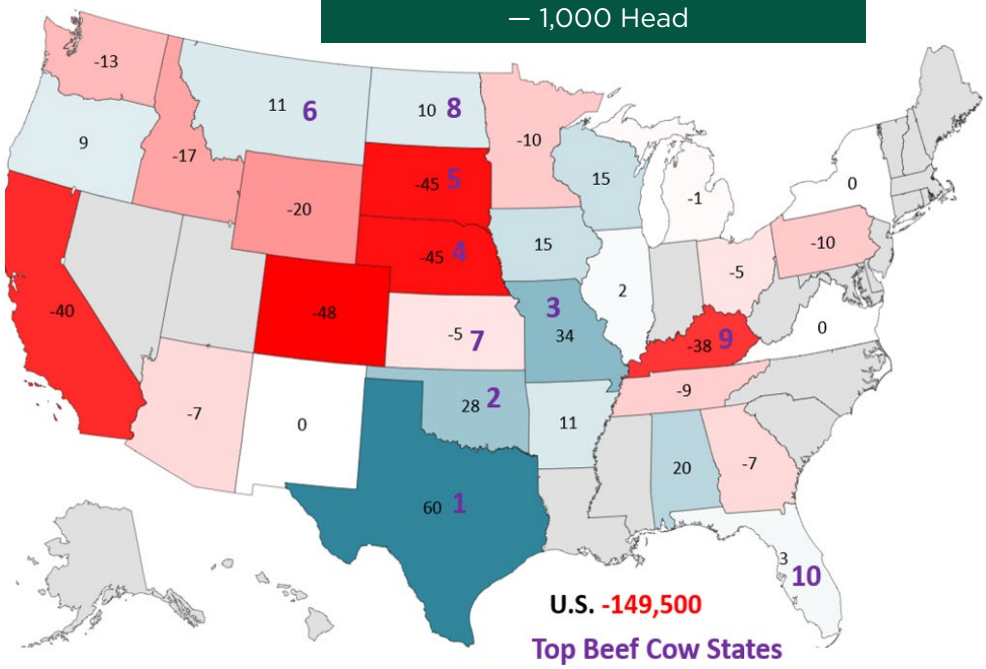
The top 10 beef cow states in order of importance are Texas, Oklahoma, Missouri, Nebraska, South Dakota, Montana, Kansas, North Dakota, Kentucky and Florida; these 10 states account for 57% of the U.S. beef cow herd.

Of those states, Texas, Missouri, Oklahoma, Montana, North Dakota and Florida saw increases in beef cow numbers during 2024, indicating interest in beef herd restocking where pasture and range conditions favor it.

The July cattle report did provide very important information on potential calf and feeder cattle supplies. It was the first estimate by NASS of the 2025 calf crop. The calf crop, which includes both beef and dairy calves, at 33.1 million head, is projected to decline 430,000 head from 33.53 million head last year.

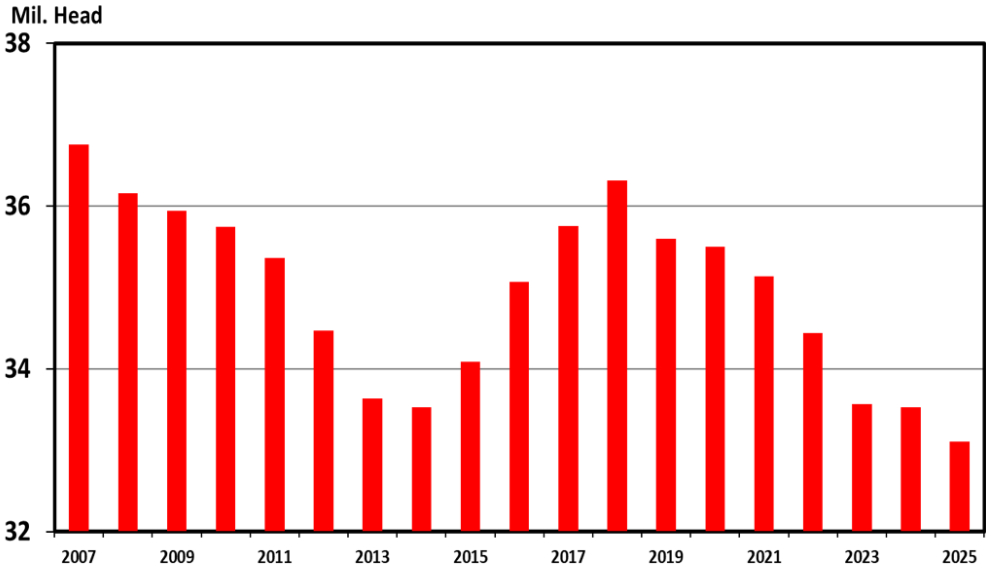
July 1 residual feeder cattle supplies outside feedlots were reported to be 34 million head, the lowest in many years. That, coupled with a potential increase in beef heifer retention and the possible Mexican border remaining closed, will cause historically tight supplies.

Change In Beef Cows 2024 to 2025
— 1,000 Head



Source: USDA NASS

Calf Crop — U.S., Annual



Source: USDA NASS

Continued on page 13.

Midyear Cattle Inventory Report Highlights Tight Feeder Cattle Supply – continued from page 12

The tight calf and feeder cattle supplies will mean fewer cattle marketed and potentially declining beef production. That will be supportive to fall calf prices.

The Aug. 12 USDA World Agricultural Supply and Demand Report (WASDE) also added support for fall calf prices (www.usda.gov/oce/commodity/wasde). The USDA is predicting a record corn crop of 16.7 billion bushels, with 2025/26 average corn prices declining to $3.90 per bushel from $4.30 in 2024/25.

Additionally, in the WASDE, USDA raised the 2025 fed steer price prediction from $221 per hundredweight (cwt.) to $227/cwt. and increased the 2026 price forecast from $228.50 to $243.50/cwt.

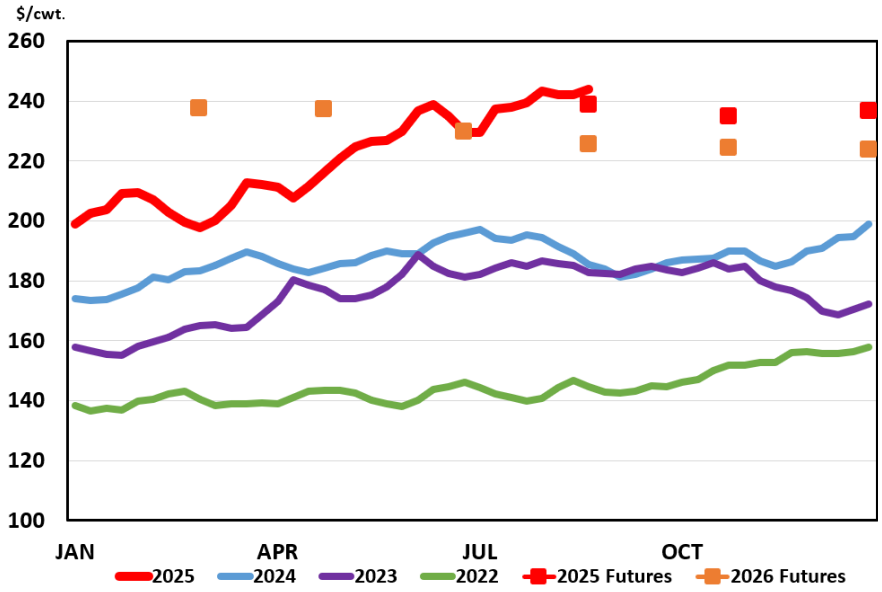
The three most important factors that impact fall calf prices are potential calf supplies, corn prices and fed cattle prices — especially the distant live cattle futures prices for contract months when the calves will ultimately reach slaughter weight.

Those factors are all supportive to fall calf prices now. Calf prices are expected to decline seasonally from summer peaks into the fall and winter calf marketing season, but remain at record-high levels.

However, price volatility and risk will likely continue. Drought conditions linger in some areas, the actual size of the 2025 corn crop is to be determined, domestic and export beef demand face challenges and the impact of geopolitical, tariff and trade issues is dynamic and uncertain.

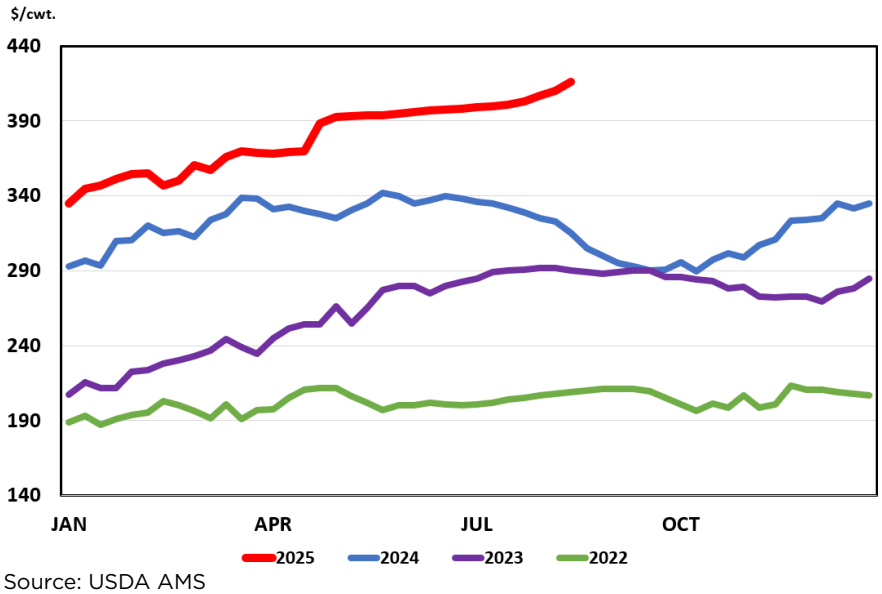
Producers considering backgrounding calves until spring will likely place the highest-ever-priced calves into feedlots. Marketing plans with price risk management strategies that set a floor price, but leave the top side open, should be considered.

Fed Steer Prices — 5 Market Weighted Average, Weekly
Change In Beef Cows 2024 to 2025 — 1,000 Head



Source: USDA AMS

Medium and Large #1 Steer Calf Prices
550-600 Pounds, N.D., Weekly



Source: USDA AMS