

Ag Decision Maker

VOL. 29 NO. 1 / NOVEMBER 2024

A BUSINESS NEWSLETTER FOR AGRICULTURE

INSIDE . . .

PAGE 3

Shifting drivers of Iowa farmland value

PAGE 7

Placements: most important, yet most elusive, cattle on feed report number

UPDATES

The following [Information Files](#) have been updated on extension.iastate.edu/agdm:

C3-24 Understanding Profitability
C3-53 Financial Troubleshooting
C4-57 Estate Planning Questionnaire
C6-89 Natural Gas and Coal Measurements and Conversions

The following [Video and Decision Tools](#) have been updated on extension.iastate.edu/agdm:

A1-10 Chad Hart's Latest Ag Outlook

The following [Profitability Tools](#) have been updated on extension.iastate.edu/agdm/outlook.html:

A1-85 Corn Profitability
A1-86 Soybean Profitability
A2-11 Iowa Cash Corn and Soybean Prices
A2-15 Season Average Price Calculator
D1-10 Ethanol Profitability
D1-15 Biodiesel Profitability



The preview for 2025

By Chad Hart, extension crop market economist,
515-294-9911 | chart@iastate.edu

This November, USDA provided us not only an updated look at the 2024 crops, but also the first preview of the estimates for 2025. For the 2024 crops, the updates were mainly focused on supplies, with little movement on the usage side. For the 2025 crops, the preview indicated recent trends will continue. Thus, the pattern is set up for a continued building of ending stocks and lower crop prices.

Corn crop movements

For corn, the new estimates for the 2024 crop did reduce production as the impacts of the hurricanes and the flash drought at the end of harvest were fully incorporated into the supply numbers. The national yield was decreased by 0.7 bushels per acre, to 183.1 bushels per acre. That is still a record yield, by nearly six bushels. But that downtick in yields reduced expected production by 61 million bushels, leaving total production at 15.143 billion bushels. On the usage side, USDA did not make any changes from their previous estimates. Thus, feed and residual usage held at 5.825 billion bushels, up

18 million bushels from 2023. Corn use for ethanol stayed at 5.45 billion bushels, down 28 million bushels from last year. Exports held at 2.325 billion bushels, up 33 million bushels from 2023. Total corn use adds up to 14.99 billion bushels, a record amount. The problem is that this is still below production and thus stocks continue to grow. Earlier in the year, the fear was that the ending stock number would exceed 2 billion bushels. November's update pulled the stock level below that level, but stocks are still growing. The current 2024-25 ending stock estimate is 1.938 billion bushels, up 178 million from the 2023-24 number. With these adjustments, USDA kept its 2024-25 season-average price estimate at \$4.10 per bushel.

Looking forward to 2025, USDA projects that corn plantings will increase by 1.3 million acres, to 92 million acres, despite the lower prices. Their trendline yield is 182 bushels per acre. This leads to a slightly larger corn crop than this year, which again will be over 15 billion bushels. With the sizable corn stocks left over from this year's



crop, total corn supply during the harvest of 2025 will exceed 17 billion bushels. But while corn usage is also expected to grow, its growth is not projected to be rapid enough to avoid even higher ending stocks. Feed and residual use is projected to increase by 100 million bushels, reaching back up to 5.925 billion bushels. This will require continued growth from pork and poultry and a turnaround in beef production. Ethanol is projected to rebound by 25 million bushels, returning back to 5.475 billion bushels. Food, seed, and other industrial uses for corn are seen as slightly declining, at 1.385 billion bushels. And exports are projected to fall back by 50 million bushels to 2.275 billion bushels. The combined shifts put total corn usage at a record 15.06 billion bushels, 70 million bushels above this year's estimate. Ending stocks, however, continue to rise,

reaching 2.208 billion bushels. The 2025-26 season-average price is projected to fall to \$3.90 per bushel, roughly \$2.60 below the 2022-23 season-average price.

Soybean crop movements

For the 2024 soybean crop, the balance sheet adjustments were larger than for corn, but the movements were in the same direction. The national yield was decreased by 1.4 bushels per acre, to 51.7 bushels per acre. That dropped the 2024 soybean crop just below the 2021 crop in terms of both yield and production. The yield adjustment subtracted 121 million bushels from production. However, soybean usage was also reduced in the update. Soybean crush was lowered by 15 million bushels. Seed and residual use fell by a million bushels, and exports retreated by 25 million bushels. While total soybean

usage remains at a healthy 4.348 billion bushels, it is still the case that production exceeds usage and stocks grow. Earlier estimates had 2024-25 soybean ending stocks above 500 million bushels. The current estimate is 470 million bushels. Despite the slightly lower outlook for soybean stocks, USDA held its 2024-25 season-average price at \$10.80 per bushel.

With the projected increase in corn area for 2025, soybeans are expected to release some ground. USDA foresees a decrease of 2.1 million acres in soybean plantings, covering 85 million acres. Given a trend yield of 52.5 bushels per acre, soybean production is projected at 4.42 billion bushels, roughly 40 million bushels below this year's crop. This would put total soybean supplies for the 2025-26 marketing year at 4.905 billion bushels, which would be a record. Soybean

Table 1. United States corn supply and usage table with 2024 and 2025 projections from November.
Source: USDA-WAOB.

Marketing Year (2024 = 9/1/24 to 8/31/25)		2021	2022	2023	2024	2025
Area Planted	(million acres)	92.9	88.2	94.6	90.7	92.0
Yield	(bushels/acre)	176.7	173.4	177.3	183.1	182.0
Production	(million bushels)	15,018	13,651	15,341	15,143	15,305
Beginning Stocks	(million bushels)	1,235	1,377	1,360	1,760	1,938
Imports	(million bushels)	24	39	28	25	25
Total Supply	(million bushels)	16,277	15,066	16,729	16,928	17,268
Feed and Residual	(million bushels)	5,671	5,486	5,807	5,825	5,925
Ethanol	(million bushels)	5,320	5,176	5,478	5,450	5,475
Food, Seed, and Other	(million bushels)	1,437	1,382	1,390	1,390	1,385
Exports	(million bushels)	2,472	1,662	2,292	2,325	2,275
Total Use	(million bushels)	14,900	13,706	14,969	14,990	15,060
Ending Stocks	(million bushels)	1,377	1,360	1,760	1,938	2,208
Season-Average Price	(\$/bushel)	\$6.00	\$6.54	\$4.55	\$4.10	\$3.90

Table 2. United States soybean supply and usage table with 2024 and 2025 projections from November.

Source: USDA-WAQB.

Marketing Year (2024 = 9/1/24 to 8/31/25)		2021	2022	2023	2024	2025
Area Planted	(million acres)	87.2	87.5	83.6	87.1	85.0
Yield	(bushels/acre)	51.7	49.6	50.6	51.7	52.5
Production	(million bushels)	4,464	4,270	4,162	4,461	4,420
Beginning Stocks	(million bushels)	257	274	264	342	470
Imports	(million bushels)	16	25	21	15	15
Total Supply	(million bushels)	4,737	4,569	4,447	4,818	4,905
Crush	(million bushels)	2,204	2,212	2,287	2,410	2,475
Seed and Residual	(million bushels)	107	114	123	113	110
Exports	(million bushels)	2,152	1,980	1,695	1,825	1,885
Total Use	(million bushels)	4,463	4,305	4,105	4,348	4,470
Ending Stocks	(million bushels)	274	264	342	470	435
Season-Average Price	(\$/bushel)	\$13.30	\$14.20	\$12.40	\$10.80	\$10.00

usage is projected to grow as well. Domestic crush is expected to increase by 65 million bushels, mainly driven by biofuel demand for soybean oil. Soybean exports are estimated to rebound, nearly reaching back to 1.9 billion bushels. Chinese soybean demand remains the key, but the increase in competition from Brazil has stymied that rebound over the past couple of years. Total soybean usage will roughly equal the total the market experienced in 2021 and could set a new record. Given these projections, USDA has soybean usage catching up and slightly passing production, a little glimmer of hope in the 2025 projections. Thus, 2025-

26 soybean ending stocks are projected at 435 million bushels, 35 million below this year's level. But despite the smaller stocks, USDA shows soybean prices continuing to fall, with the 2025-26 season-average price estimate at \$10.00 per bushel. That is a \$4.20 drop from the peak in 2022.

Price outlook

USDA's projections indicate another year of prices below production costs. The futures markets are offering a bit more hope for corn, but are even more negative on soybeans, especially for the 2024 crop. For corn, USDA has price projections of \$4.10 and \$3.90 for 2024 and 2025, respectively.

Current futures are at \$4.25 and \$4.45. The likely cause of the different pricing outlooks for the 2025 corn crop is the additional acreage USDA has heading into corn. For soybeans, USDA is at \$10.80 and \$10.00 for 2024 and 2025, respectively. Current futures are at \$9.90 and \$10.20. The big gap between the 2024 price estimates is likely due to questions about the amount of forward selling for soybeans this growing season and the ability of US soybeans to compete, especially in the Chinese market. The latest [Market Outlook video](https://youtu.be/w0xaMXiNSHl), <https://youtu.be/w0xaMXiNSHl>, is also provided for further insight on outlook for this month.



Shifting drivers of Iowa farmland value

Olivia Sharp, Rural Sociology student, Rabail Chandio, Rabail Chandio; extension economist, 515-294-6181 | rchandio@iastate.edu

Farmland prices in Iowa have generally risen over the past decades, although short-term market fluctuations can strongly impact buyers' and sellers' expectations. While net farm income and interest rates are primary drivers of farmland values, other factors like commodity prices, land availability, and location also play significant roles. For example, when commodity prices rise, they tend to boost farm income, temporarily driving up land values.

We examine the key factors influencing farmland values over the past decade, as published in the annual Iowa State University Land Value Surveys, to identify both the consistent drivers of price fluctuations and those that become significant only during specific periods, offering insights for a long-term perspective on farmland markets.

Key drivers of farmland value in a decade of data

1. Interest Rates and Borrowing Costs:

Fluctuations in interest rates over the last decade have significantly impacted farmland prices. Following a drop to near-zero levels during the COVID-19 pandemic, federal interest rates surged as inflationary pressures mounted. This increase directly affected farm real estate interest rates,

Figure 1. Number of times each factor was mentioned by ISU Land Value Survey participants every year from 2013-2023.

If the total mentions are more than eleven, that factor was mentioned both positively and negatively in a given year. Source: 2013–2023 ISU Land Value Surveys.

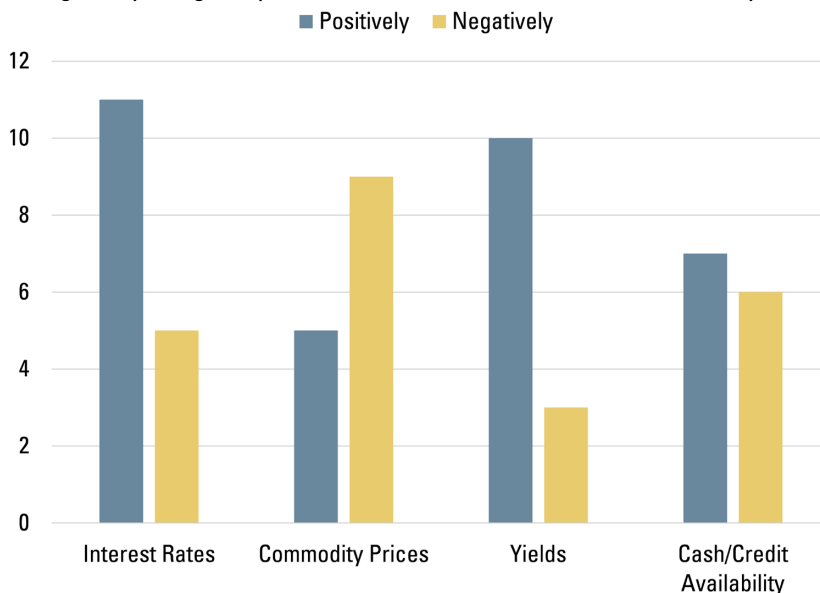
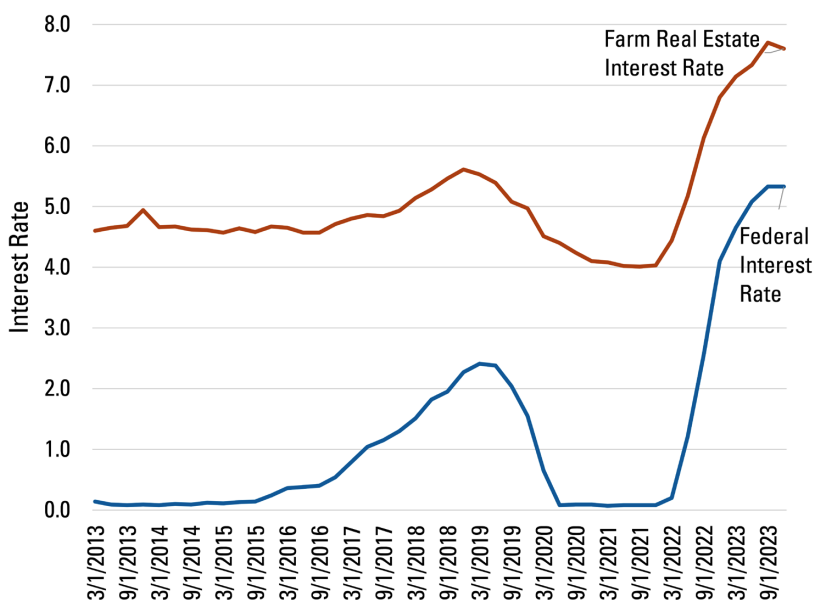


Figure 2. Quarterly comparison of farm real estate and federal interest rates.

The change in interest rates by the Federal government and the farm real estate rate, which is more influential to the land value market.



making it more expensive for potential buyers to finance land purchases. Consequently, land values have seen more pressure in recent years due to the higher cost of borrowing.

2. Commodity Prices and Farm Income: Commodity prices for Iowa’s primary crops, corn, and soybeans, have shown significant volatility, which has influenced land values in varying ways. A sustained decline in prices led to a cautious land market before the pandemic, but rebounds during the pandemic helped strengthen values, highlighting the strong link between crop revenue potential and land demand. Now, after the pandemic, survey respondents once again ranked low commodity prices as a top concern in 2023, second only to high interest rates.

3. Yield Trends and Production Resilience: Yields for Iowa’s corn and soybeans have trended upward overall, with notable gains in the early part of the decade. However, during 2016-2020, yields have plateaued, and extreme weather events, such as the 2020 derecho, caused major disruptions. The last two years have been incredibly strong production years. Despite the challenges, yield stability has positively influenced land values, as consistent productivity makes farmland a more reliable investment.

4. Land Supply and Cash Availability: In 2023, limited land supply and access to cash or credit emerged as especially influential factors, marking a shift from 2013 when favorable interest rates and higher commodity prices were more dominant. Inflation

Figure 3. Marketing year average price of corn and soybeans, 2013-2023.
Source: USDA NASS.

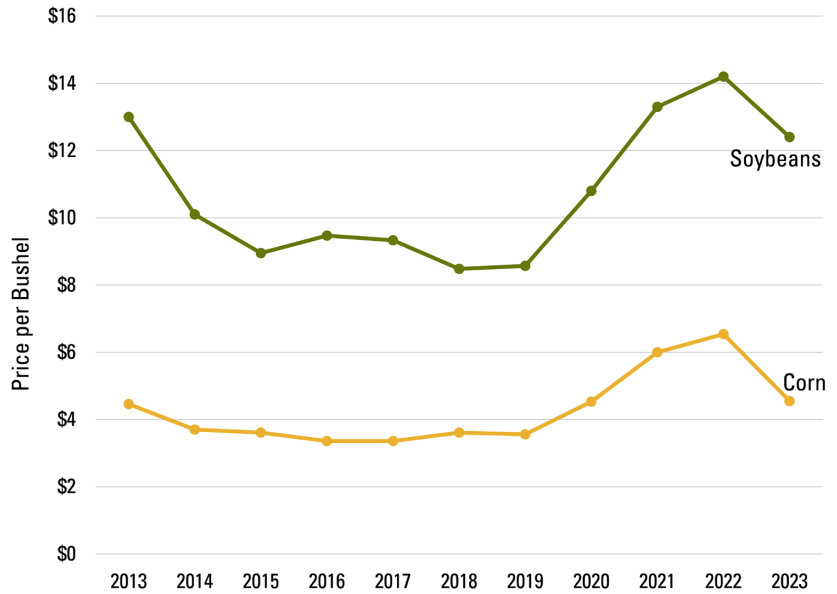
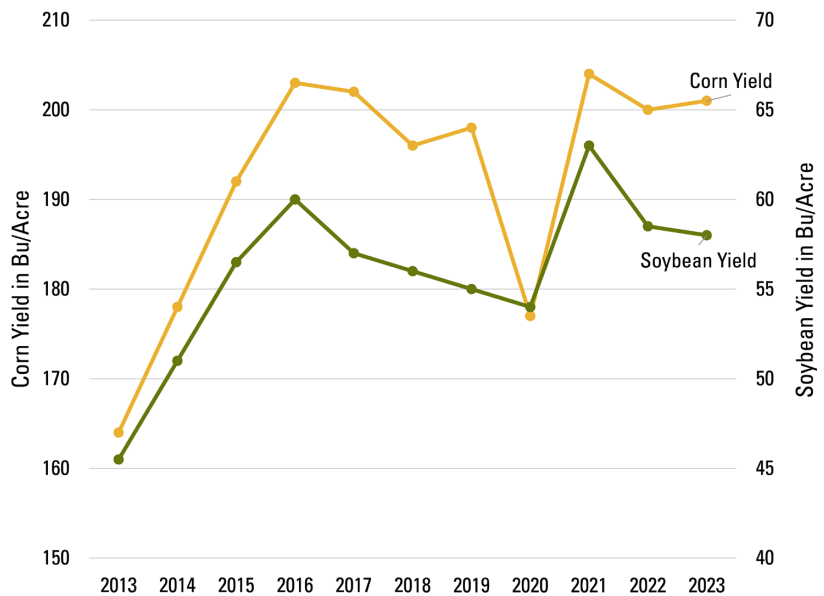


Figure 4. Iowa corn and soybean yields, 2013-2023.
Source: USDA NASS.



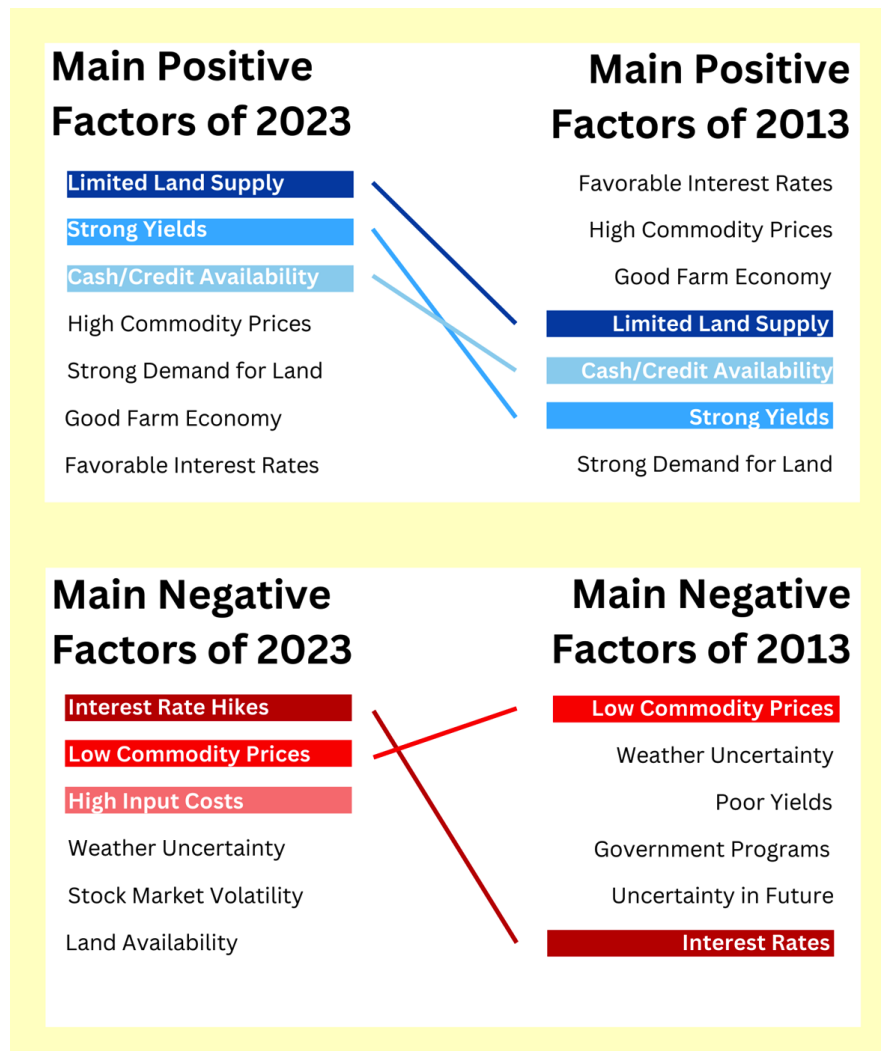
and rising input costs, which weren’t prominent factors a decade ago, now play a critical role in farmland value trends. Higher input costs, particularly post-COVID-19, have intensified challenges for buyers as operating costs rise alongside the price of land.

5. Economic Stress and Inflation Impact: During periods of economic strain, inflation becomes a more significant factor, influencing both buyer expectations and their willingness to pay. Land values tend to soften as the purchasing power of the dollar declines, making it essential for stakeholders to consider inflation trends when assessing long-term land investment strategies.

Overall, the primary factors influencing farmland values have remained consistent from 2013 to 2023, though their relative importance has shifted in response to specific economic stressors each year. Factors that were less prominent in 2013 have gained influence; for instance, in 2023, limited land supply emerged as a major concern, along with strong yields and cash availability. By contrast, favorable interest rates, high commodity prices, and a generally robust farm economy, which were key factors in 2013, are now less impactful.

Recent economic shifts underscore this change: both federal and farm real estate interest rates have reached their highest levels since 2013, and corn and soybean prices have generally fallen back to early-decade levels, as illustrated in Figures 2 and 3. The agricultural sector, including land values, is particularly vulnerable to inflationary pressures, which reduce purchasing power and weigh down land values.

Figure 5. Change in importance of factors from 2013-2023.
 Factors listed were first surveyed from the most common answer to the least.
 Source: ISU Land Value Surveys.



Notably, high input costs, which were not a significant factor in 2013, ranked third in importance in 2023, reflecting the economic adjustments following COVID-19. As the farm economy continues to evolve, particularly in response to inflation and rising input costs, understanding these shifting factors is essential for accurately assessing farmland value trends and preparing for future changes in the agricultural market.



Placements: most important, yet most elusive, cattle on feed report number

Lee Schulz, Chief Economist, Ever.Ag Livestock Division; ISU extension livestock economist (on leave) | lschulz@iastate.edu

Placements into feedlots is the key number in every [Cattle on Feed report](https://usda.library.cornell.edu/concern/publications/m326m174z), <https://usda.library.cornell.edu/concern/publications/m326m174z>, published by USDA's National Agricultural Statistics Service. Placements drive cattle on feed inventories, which drive future fed cattle marketings, which drive prices.

Market analysts providing pre-report expectations are some of the best in the business. Yet, placement expectations vary widely across analysts. USDA's number, which is derived from survey responses of producers, often comes in well outside the range of pre-report expectations.

For example, May 2024 saw a large variance among what analysts believed placements would be. Their projections ranged from 95.0% to 102.4% of a year prior, with an average of 98.3% (Figure 1). USDA estimated placements at 104.3% of May 2023, well above trade expectations.

If the actual placements estimate is near the average of pre-report trade expectations, market participants generally view the reported number as neutral, and will likely have little impact on market prices. However, if the market had been expecting a smaller placements number prior to the release of

a report and then the report contained a larger placements number, market prices would be expected to decrease. The reason is because the future supply of fed cattle will be larger than previously expected.

The [Cattle on Feed report](https://downloads.usda.library.cornell.edu/usda-esmis/files/m326m174z/tb09m065p/6682zx83w/cofd1024.pdf), <https://downloads.usda.library.cornell.edu/usda-esmis/files/m326m174z/tb09m065p/6682zx83w/cofd1024.pdf>, released October 25, 2024, estimated September 2024 placements at 98.1% of September 2023. Pre-report placement expectations ranged from 94.2% to 99.0% of a year ago. The average was 95.8% which was below what USDA reported of 98.1%. For context, the 2.3 percentage point difference between 95.8% and 98.1% of a year ago is over 50,000 cattle.

Why can placements into feedlots be so difficult to predict?

Wide range in placement weights is one factor

The weight of feeder cattle when placed on feed can range from 600 pounds or less to 1,000 pounds or more. The number of cattle in each weight group entering feedlots is the result of procurement decisions by cattle feeders and of marketing decisions by cow-calf producers and stocker and backgrounding operators.

About 74% of US calves are born between January 1 and June 30. Spring born calves spell fall weaned calves. Weaned calves may go into feedlots, into stocker operations, into backgrounding operations, or may stay on the farm or ranch. Calves that are not immediately placed into feedlots are wintered and can then be placed as short yearlings the following spring or may remain on grass through summer as long yearlings. This biological and industry segmentation lead to seasonal placement curves based on weights and can vary regionally.

Beyond this, several factors contribute to weights at which cow-calf and other producers choose to sell feeder cattle and feedlots choose to buy them. These include pasture conditions, grain prices, weather, feedlot capacity and profitability, interest rates and cash flow, and cattle performance.

The decline in September 2024 placements occurred in the lightweight categories. Placements of cattle weighing under 600 pounds were 93.5% of a year ago, between 600-699 pounds were 93.0% of a year ago, between 700-799 pounds were 96.9% of a year ago, between 800-899 pounds were 101.5% of a year ago, between 900-999 pounds were 105.2% of a year ago and 1,000 pounds and more were 105.3% of a year ago.

Cow-calf producer's dilemma—take cash or expand herd

The definition of placements are steers and heifers put into a feedlot, fed a ration which will produce a carcass that will grade select or better, and are intended for the slaughter market.

Cow-calf producers can hold back heifers to enter the cow herd or sell them as feeders. Current, high calf prices tempt cow-calf producers to convert calves to cash and dash to the bank. Expectations of even higher calf prices in the future tempt producers to hold back heifers to enter cow herds and produce calves. Analysts are left to speculate on the winner of this feeder heifer or beef cow replacement tug-of-war.

Heifer retention would trim feedlot placements

In the January, April, July and October Cattle on Feed reports, USDA breaks down the on-feed inventory by steers and steer calves versus heifers and heifer calves. Heifers on feed on October 1, 2024 totaled 4.6 million head, down 0.9% from October 1, 2023. The ratio of heifers on feed at 39.7% of the total cattle on feed was in line with 2022 and 2023 levels. This suggests that heifer retention for beef cow replacement is very limited. The idiom “robbing Peter to pay Paul” comes to mind as heifer placements into feedlots boost near-term cattle and beef supplies at the expense of future supplies.

Figure 1. Trade expectations compared to USDA NASS estimates.

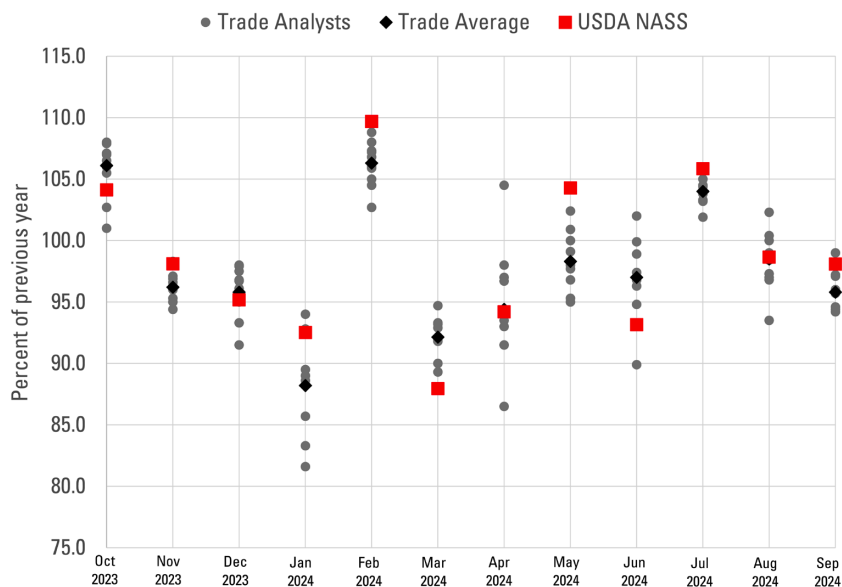
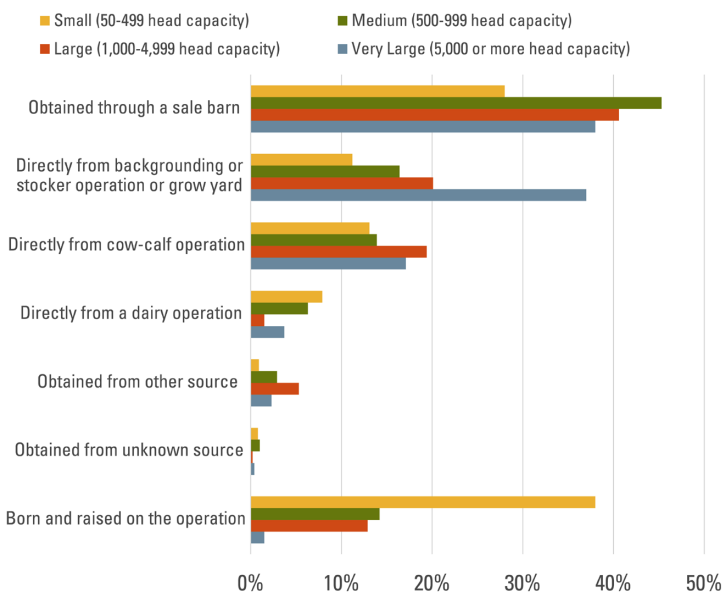


Figure 2. Percentage of cattle placed during 2020 by source and by feedlot capacity.



Casual observers may say just look at heifer slaughter data to judge cowherd expansion pace. When heifer slaughter goes down, heifer retention rises.

Agreed, however, heifer slaughter today reflects feedlot placement decisions made roughly six months ago. That makes heifer slaughter a lagging indicator, rather than a leading indicator of herd expansion. Moreover, heifer slaughter data includes both beef and dairy heifers and the dynamics of beef on dairy crossbreeding could somewhat confound heifer slaughter data.

Placements come from a diverse set of sources

In some cases, cattle are born and raised on the feedlot operation in which they are finished, which can occur when feedlots also operate a cow-calf operation or a dairy. According to the USDA Animal and Plant Health Inspection Service, National Animal Health Monitoring System (NAHMS), [Management Practices on US Feedlots](https://www.aphis.usda.gov/sites/default/files/feedlot-health-2021-mgmt-practice-dr1.pdf), <https://www.aphis.usda.gov/sites/default/files/feedlot-health-2021-mgmt-practice-dr1.pdf>, 2021 study released in September 2024, 12.9% of the cattle on large feedlots (1,000–4,999 head capacity) and 1.5% of the cattle on very large feedlots (5,000 head or more) were born and raised on the operation (Figure 2). Recall, the Cattle on Feed report provides data for feedlots with 1,000 or more head capacity.

These feedlots represent about 85% of all fed cattle in the United States.

For large feedlots, the highest percentage of cattle placed in 2020 (40.6%) were obtained through a sale barn. The next highest sources were directly from a backgrounding or stocker operation or grow yard (20.1%), including cattle purchased by video auction and directly from a cow-calf operation (19.4%), including cow-calf operations owned by or associated with the feedlot. For very large feedlots, these percentages were 38.0%, 37.0%, and 17.1%, respectively.

USDA's Agricultural Marketing Service reports weekly feeder cattle sales volumes in the [National Feeder & Stocker Cattle Summary \(SJ LS850\)](https://mymarketnews.ams.usda.gov/viewReport/3232), <https://mymarketnews.ams.usda.gov/viewReport/3232>. This can give a preliminary indication

about trends in cattle moving into feedlots. Based on reports issued in September 2024, total feeder cattle trade volume was 5.9% lower than a year earlier. Data is reported for three marketing channels including auctions, direct trade, and internet or video-based auctions.

Unfortunately, the SJ_LS850 report is not concerned with the source or the destination of the cattle traded. So, cattle moving from pastures to auction barns and then back out to pastures weakens the relationship between feeder cattle market receipts and feedlot placements.

Ag Decision Maker is written by extension ag economists and compiled by Ann Johanns, extension program specialist, aholste@iastate.edu.

PERMISSION TO COPY

Permission is given to reprint ISU Extension and Outreach materials contained in this publication via copy machine or other copy technology, so long as the source (Ag Decision Maker Iowa State University Extension and Outreach) is clearly identifiable and the appropriate author is properly credited.

This institution is an equal opportunity provider. For the full non-discrimination statement or accommodation inquiries, go to www.extension.iastate.edu/diversity/ext.