

## Managing Market Volatility in 2023

### Jay Parsons

Farm and Ranch Management Specialist, University of Nebraska-Lincoln

### John Hewlett

Ranch/Farm Management Specialist, University of Wyoming

### Jeff Tranel

Ag and Business Management Specialist, Colorado State University

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Current prices for agricultural commodities are strong. The average auction market price in early May for 500–600-pound steer calves in Nebraska was \$264 per cwt. Heifer prices were \$30 lower, at \$234 per cwt. Elevator prices for corn in western Nebraska are in the high \$6-per-bushel range. Wheat prices at the elevator are around \$8 per bushel. Hay prices are \$200 to \$300 per ton if you can find it. Severe drought and world market volatilities over the last couple of years have pushed all of these markets higher. Growers and sellers of these commodities are anxious for harvest to arrive. They hope these prices hold and yields are good so they can capture a decent profit margin for their work.

Farmers and ranchers live with market volatility year in and year out. High prices bring both optimism and anxiety as producers know markets can turn around dramatically over short periods of time. They also know production losses sting a little more when they represent lost opportunities to market farm output into a high market. In this article, we examine market volatility for each of the above farm outputs. We take a historical look at variability in price outcomes, and add perspective on tools available to manage this risk at this point in the season.

### **Cow-calf profitability**

Let's start with cow-calf producers who are optimistic about profits in 2023, despite challenges with forage availability and input costs. A \$260 per cwt. price for a 550-lb. steer is only good if you have a steer to sell. For producers, what the prices will look like in October or November when they have weaned calves to sell is their primary concern. One indicator of what prices might be like this fall is to use the October CME Feeder Cattle Futures price and add the expected local basis to it. For example, the October futures contract price for feeder cattle was trading around \$230 per cwt. during the first half of May. The Nebraska basis for 500-600 pound steers in October has been \$15 to \$36 above the CME contract settlement index for the period from 2018-22 (Table 1). This information would project a price for 5-weight steers in Nebraska in October somewhere from \$245 to \$266 per cwt. Producers throughout the country can do this same calculation for their situation using local basis information.

However, it is reasonable to ask how accurate the May price for the October feeder cattle contract is when it comes to predicting the October price. The answer for the last five years is that it is fairly accurate with it being within \$5 per cwt. for four of the last five years (Table 2). The exception was 2018 when it undershot the price by almost \$13. One may wonder what these numbers looked like coming out of the 2012 drought. In both 2013 and 2014, the May price for October feeder cattle futures was considerably

below the settlement index in October (below by \$15.69 and \$47.13, respectively). That is, prices moved higher than expected as 2013 and 2014 markets evolved. However, in 2015, as cattle inventories recovered, the May price was \$23.20 per cwt. above where the contract ultimately settled in October. In 2015, price protection really paid off for those who had it as prices moved downward at a pace that was not reflected in the expectations in May for fall prices.

This year, cattle prices are strong, and appear poised to remain strong throughout the year. However, as 2015 has shown, we never know for sure when the market will turn. Cow-calf producers do not need to get too aggressive yet locking in prices. However, it may be a good time to look at inexpensive options to establish floor price protection with tools like put options or Livestock Risk Protection (LRP) insurance. Several changes to the LRP insurance program for cattle producers have taken place over the last four years to make it more affordable and easier to use. These improvements include increases in the premium subsidy rates, moving the premium due date from the beginning to the end of the coverage period, and several changes expanding the availability. Current LRP insurance contracts expiring in mid-October or mid-November offer opportunities to protect the CME feeder cattle price at around \$230 per cwt. for a little over \$5 per cwt. premium cost.

### **Wheat markets in 2023**

As far as grain markets go, wheat harvest is only weeks away for many producers. Depending upon location, local harvest prices may be based on July or September futures contracts. For example, the harvest contract delivery prices for hard red winter wheat in western Nebraska and southeastern Wyoming are usually based on the Kansas City July futures contract. When the July harvest materializes, the cash delivery price is usually based on the September futures contract price.

As an example, the July 2023 Kansas City hard red winter wheat futures contract traded from the mid-\$7 range per bushel to the mid-\$8 range during the first two weeks of May this year. The basis for July harvest delivery to one of the local elevators was minus \$0.75 off the July futures contract price for the first week of May before contracting to minus \$0.70 for the start of the second week of May. The 10th day of May saw a switch to the September futures contract with a basis of minus \$0.65. The result was opportunities over two weeks to contract for delivery in July at prices between \$6.65 and \$7.96 per bushel based on daily closing prices. The average daily closing price for July delivery over the two-week span was \$7.43 per bushel.

A reasonable question to ask is how this same scenario has looked over the last several years. Table 3 depicts the numbers for 2018 – 2022 for the July delivery contract offer at an example western Nebraska elevator offered during the first two weeks of May and compares it to the cash delivery price during the last two weeks in July of the same year. For 2018 – 2021, we see a good correlation between the May offer and the July cash price. The 2018-2019 years represent years where contracting did not pay and 2020-2021 represent years where contracting did pay. Last year was the exception in that a nearly \$3 drop occurred from the contracted prices offered in May to the cash prices offered in July. This year's volatility is somewhere in between that seen in 2018-2021 and that seen in 2022. There is more volatility this year than that seen in 2018-2021 but not quite as high as that in 2022. Many wheat producers have already contracted quantities for delivery they are comfortable with this year given their production outlook and the risk associated with it. That is probably a good place to be at this point, especially if those contract prices took advantage of one of the price rallies that occurred this spring.

### **Corn futures**

Corn prices are typically more stable than wheat prices. The December corn futures contract price serves as a basis for many local elevator harvest prices. Table 4 shows the Chicago Board of Trade December corn futures contract price for 2018-2022 for early May contrasted with early November. The only year the contract price in May was a good representation of the contract price in November was 2019. The only year the contract price in November was above the contract price in May was 2020. The other three years saw the contract price in November \$0.27 to \$0.62 per bushel below the contract price in May. The basis to the local elevator cash price will vary by location but, nationally, we see local November cash price average \$0.11 to \$0.39 below the December futures contract price during the first two weeks in November. For 2023, December corn futures have held strong in the \$5 to \$6 range with a slight downward trend emerging. Many producers have already contracted a portion of their expected harvest and history suggests they will not regret that decision.

### **What to make of hay markets?**

Finally, hay prices for the 2022-2023 winter feeding period were some of the highest in memory. With no futures market, producers are left with few data sources to turn to for future market trends. Figure 1 depicts the high, average, and low monthly price for alfalfa hay over the period 2018-2022 in the U.S. Prices tend to climb during first few months of the year as winter feeding is in full swing and then level off or trend slightly downward through the remainder of the year. The notable exception is 2022, which was the third straight year of extreme drought over much of the western U.S. The orange line in Figure 1 represents the monthly average prices for 2022 as each month was a new five-year high. However, for buyers of hay in 2023, now is not time to panic about possible hay prices later in the year. History indicates that prices normally remain steady or decline during the growing season. Cattle inventories have declined due to the drought and will take some time to rebuild. The most likely scenario is that hay supplies will catch up with demand and prices will return to normal seasonal patterns. Sellers of hay may wish to capitalize on selling opportunities that fit their marketing needs while the current uncertainty in the market persists.

In conclusion, markets are high for many agricultural commodities and the uncertainty over the last three years has led to extreme volatility. Expect some of the volatility to continue. However, a solid marketing plan can still be built that makes reasonable use of the information available to better understand the nature of the volatility and the risks involved in it. Plans can be adjusted as information becomes available. So, make a plan for how you want to handle the current volatility, create some action items, and move forward with creating the right risk management plan for your operation.

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**Table 1: Historical Nebraska Average Auction Market Prices for 500-600 lb. Calves Compared to the Chicago Mercantile Exchange (CME) October Feeder Cattle Cash Settlement Index During the Last Two Weeks in October. All prices are in \$/cwt.**

Year	2018	2019	2020	2021	2022	Avg.
Steers	\$177.94	\$160.55	\$156.67	\$176.60	\$210.25	\$176.40
Heifers	\$154.59	\$142.15	\$138.29	\$153.60	\$186.62	\$155.05
Basis: Steers - Heifers	\$23.35	\$18.39	\$18.38	\$23.01	\$23.63	\$21.35
CME Feeder Cattle Cash Settlement Index	\$154.77	\$145.08	\$135.47	\$155.38	\$174.16	\$152.97
Basis: Steers - CME Index	\$23.17	\$15.47	\$21.19	\$21.23	\$36.09	\$23.43
Basis: Heifers - CME Index	(\$0.18)	(\$2.92)	\$2.82	(\$1.78)	\$12.46	\$2.08

Data Source: Livestock Marketing Information Center (LMIC)

**Table 2: Chicago Mercantile Exchange (CME) October Feeder Cattle Contract, \$/cwt.**

Year	2018	2019	2020	2021	2022	Avg.
Oct Feeder Cattle Futures Contract Price in May	\$142.00	\$145.99	\$135.15	\$150.68	\$177.78	\$150.32
CME Feeder Cattle Cash Settlement Index	\$154.77	\$145.08	\$135.47	\$155.38	\$174.16	\$152.97
Difference: Contract Price in May - Settlement Index	(\$12.78)	\$0.91	(\$0.32)	(\$4.69)	\$3.62	(\$2.65)

Source: Livestock Marketing Information Center (LMIC)

**Table 3: Example Nebraska Elevator Harvest Wheat Prices from 2018 – 2022 Comparing July Harvest Delivery Contract Price Offered During the First Two Weeks of May to the Cash Prices During the Last Two Weeks of July.**

Year	2018	2019	2020	2021	2022	Avg.
<b>Early May Harvest Contract</b>						
High	\$4.88	\$3.49	\$4.32	\$6.82	\$11.97	\$6.30
Low	\$4.30	\$3.27	\$3.97	\$6.03	\$9.98	\$5.51
Average	\$4.60	\$3.41	\$4.19	\$6.44	\$10.82	\$5.89
<b>Late July Cash Price</b>						
High	\$5.01	\$3.94	\$3.99	\$6.20	\$8.30	\$5.49
Low	\$4.33	\$3.75	\$3.85	\$5.84	\$7.50	\$5.05
Average	\$4.67	\$3.86	\$3.92	\$6.02	\$7.97	\$5.29

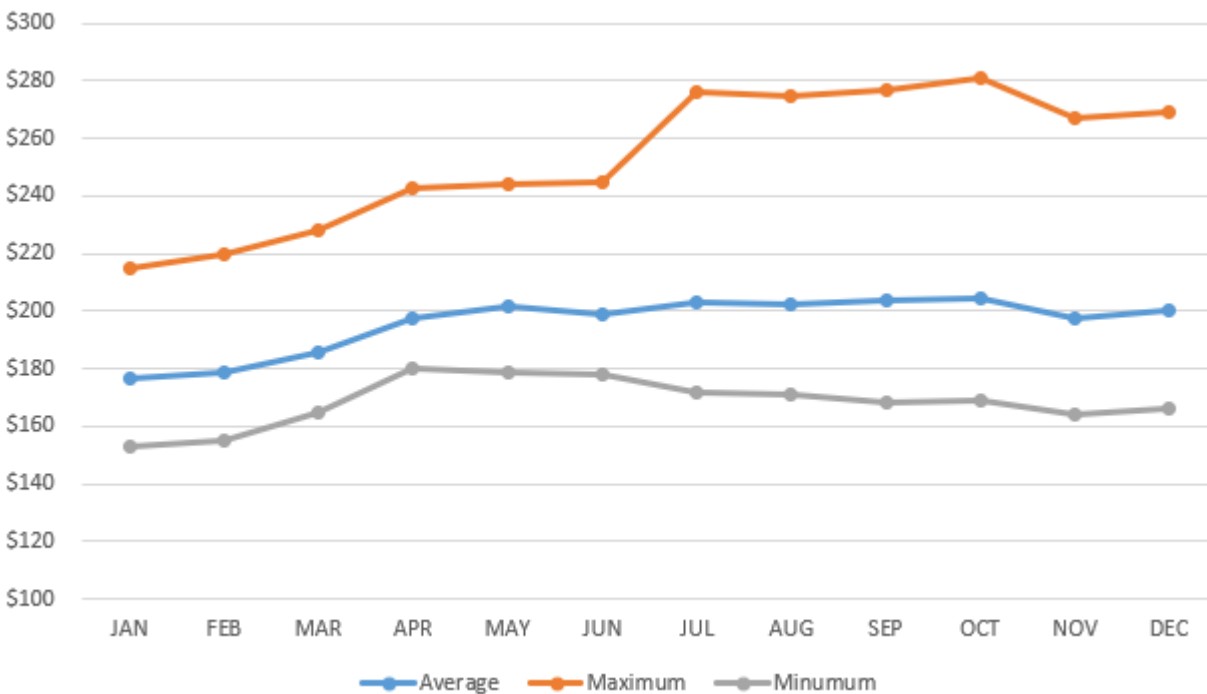
Source: Author dataset.

**Table 4: Chicago Board of Trade December Corn Futures Contract Price Offered During the First Two Weeks of May Compared to the First Two Weeks in November and the National Elevator Cash Price in November.**

Year	2018	2019	2020	2021	2022	Avg.
<b>Early May</b>						
High	\$4.22	\$3.88	\$3.37	\$6.37	\$7.53	\$5.07
Low	\$4.14	\$3.72	\$3.31	\$5.43	\$7.11	\$4.74
Average	\$4.19	\$3.82	\$3.34	\$5.92	\$7.34	\$4.92
<b>Early November</b>						
High	\$3.74	\$3.89	\$4.23	\$5.79	\$6.98	\$4.93
Low	\$3.67	\$3.73	\$3.98	\$5.52	\$6.53	\$4.68
Average	\$3.71	\$3.79	\$4.09	\$5.65	\$6.72	\$4.79
<b>November Cash Corn Price*</b>						
	\$3.41	\$3.68	\$3.79	\$5.26	\$6.49	\$4.53

\* Livestock Market Information Center (LMIC) Average National Cash Corn Price for November.

**Figure 1: National Average Prices for Alfalfa Hay 2018 - 2022.**



Source: Livestock Market Information Center (LMIC).

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