

Row Crop Marketing: Back to Basics

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Overview

- Basics of Grain Marketing
- Seasonal Factors / Market Movers
- Marketing Tools
- Basic Future and Option Strategies
- Questions?

Steps

- Understand your market
- Determine cost of production
- Identify risks and timing
- Identify available tools
- Develop a plan
- Execute and evaluate





BASIC OF GRAIN MARKETING

Basics of Grain Marketing

- Budgeting and Establishing Price Points
- Developing Price Expectations
- Timing and Incremental Pricing
- Storage
- Basis Opportunities

Develop A Plan

- Flexibility and ability to adapt to market conditions
- Use of multiple tools that are specific to market offerings
 - Price risk management is not the same as establishing a final price.
- Comfort level with utilization of tools (or support network)

Old Crop versus New Crop Pricing

- Old crop – Crop held in storage
 - Limited production risk
 - Can use the same tools as new crop
- New crop – Crop to be harvested
 - Price incrementally
 - Do not trade price risk for production risk

2025 Corn, Non-Irrigated Budget

	<u>Unit</u>	<u>Quantity</u>	<u>Price</u>	<u>Total</u>	<u>Your Farm</u>
Revenue					
Corn	Bu/acre	175	\$4.60	\$805.00	_____
Variable Expenses					
Seed	Thous.	32	\$3.88	\$124.16	_____
Fertilizer & Lime	Acre	1	\$208.15	\$208.15	_____
Chemical	Acre	1	\$72.27	\$72.27	_____
Crop Scout or Consultant	Acre	1	\$10.00	\$10.00	_____
Repair & Maintenance	Acre	1	\$45.98	\$45.98	_____
Fuel, Oil & Filter	Acre	1	\$22.09	\$22.09	_____
Operator Labor	Acre	1	\$13.98	\$13.98	_____
Crop Insurance	Acre	1	\$16.66	\$16.66	_____
Operating Interest	%	\$513.28	8.00%	\$20.53	_____
Total Variable Expenses				\$533.81	_____
Return Above Variable Expenses				\$271.19	_____
Fixed Expenses					
Machinery Capital Recovery	Acre	1	\$121.63	\$121.63	_____
Overhead	Acre	1	\$20.00	\$20.00	_____
Cash Rent	Acre	1	\$117.00	\$117.00	_____
Management Labor	Acre	1	\$25.00	\$25.00	_____
Total Fixed Expenses				\$283.63	_____
Total Expenses				\$817.45	_____
Return Above Specified Expenses				-\$12.45	_____
Cash Cost per Bushel				\$3.83	_____
Economic Cost per Bushel				\$4.67	_____

Develop a budget for the commodities produced on your farm.

- Estimate the cost for the production cycle
 - Cash expenses
 - Non-cash expenses
- Sensitivity to changes in cost categories
- Determine breakeven
- Identify price points

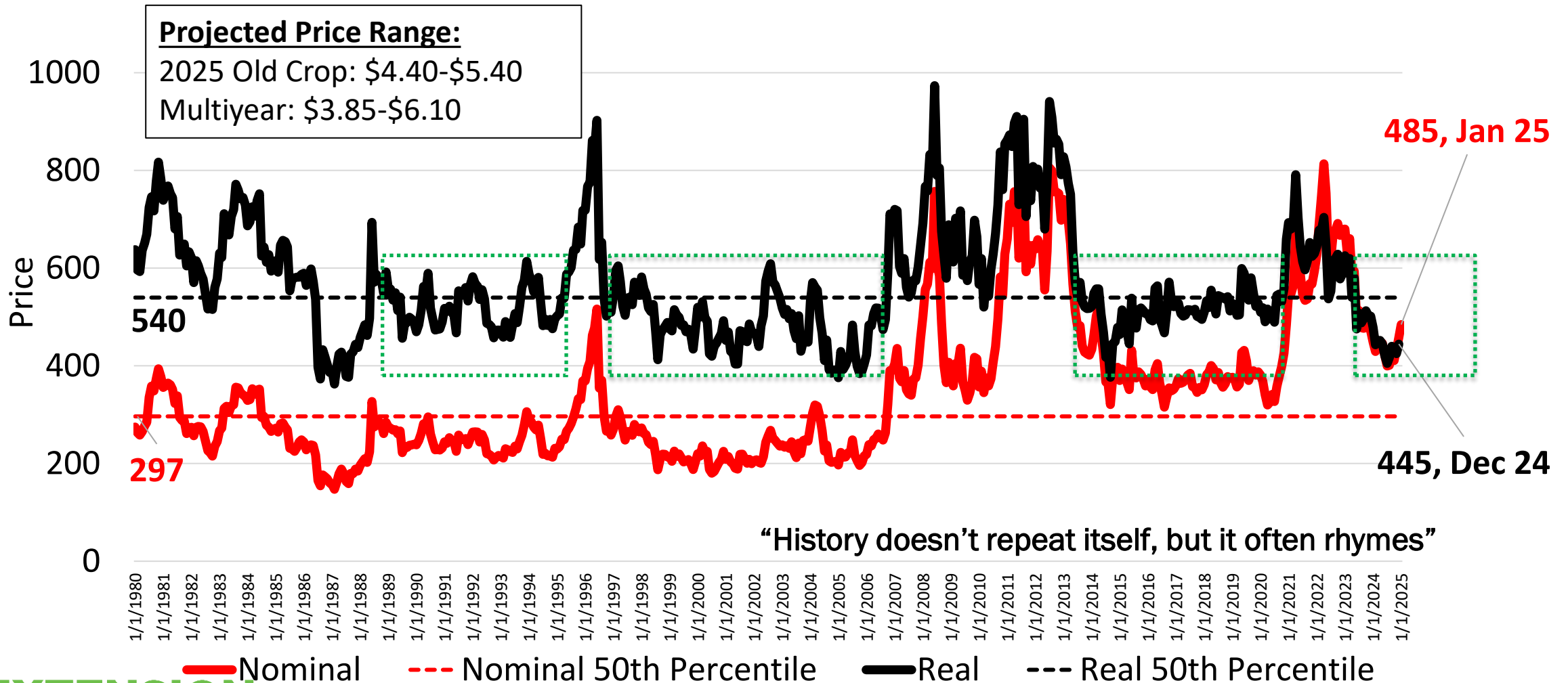
Corn - Net Return Table (\$/acre): **\$817 COP**

		<u>Yield (bu/acre)</u>										
		130	140	150	160	170	180	190	200	210	220	230
<u>Price</u> (\$/bu)	3.00	(427)	(397)	(367)	(337)	(307)	(277)	(247)	(217)	(187)	(157)	(127)
	3.25	(395)	(362)	(330)	(297)	(265)	(232)	(200)	(167)	(135)	(102)	(70)
	3.50	(362)	(327)	(292)	(257)	(222)	(187)	(152)	(117)	(82)	(47)	(12)
	3.75	(330)	(292)	(255)	(217)	(180)	(142)	(105)	(67)	(30)	8	45
	4.00	(297)	(257)	(217)	(177)	(137)	(97)	(57)	(17)	23	63	103
	4.25	(265)	(222)	(180)	(137)	(95)	(52)	(10)	33	75	118	160
	4.50	(232)	(187)	(142)	(97)	(52)	(7)	38	83	128	173	218
	4.75	(200)	(152)	(105)	(57)	(10)	38	85	133	180	228	275
	5.00	(167)	(117)	(67)	(17)	33	83	133	183	233	283	333
	5.25	(135)	(82)	(30)	23	75	128	180	233	285	338	390
	5.50	(102)	(47)	8	63	118	173	228	283	338	393	448
	5.75	(70)	(12)	45	103	160	218	275	333	390	448	505
	6.00	(37)	23	83	143	203	263	323	383	443	503	563
	6.25	(5)	58	120	183	245	308	370	433	495	558	620
	6.50	28	93	158	223	288	353	418	483	548	613	678
6.75	60	128	195	263	330	398	465	533	600	668	735	

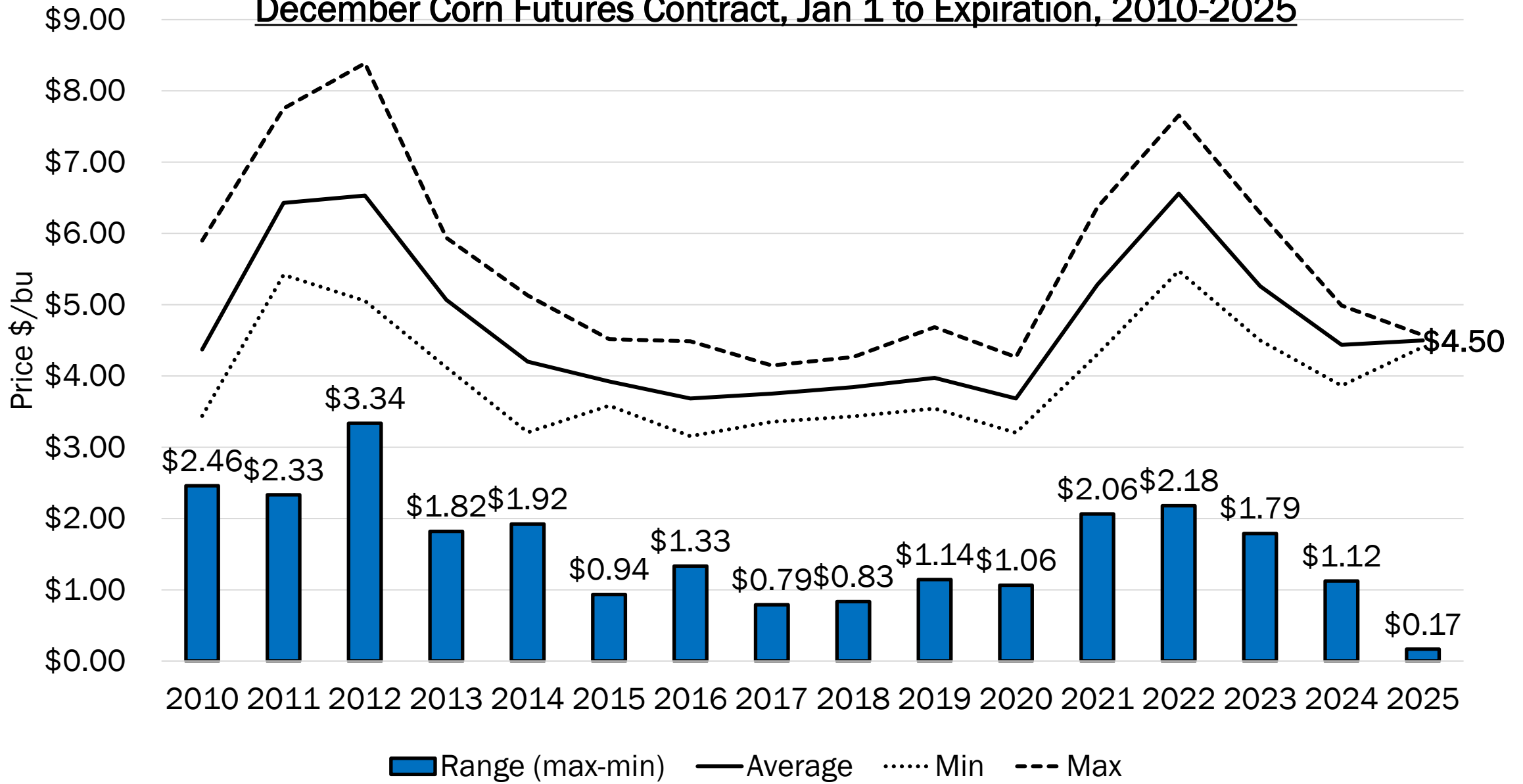
Understand Your Market

- Local, regional, national, and global influences will influence futures and cash prices received for your commodities.
- How and why do we formulate price expectations?

Monthly Real and Nominal Corn Futures Prices, 1980-2024 (Base= June 2024)



December Corn Futures Contract, Jan 1 to Expiration, 2010-2025



■ Range (max-min)
 — Average
 ⋯ Min
 - - - Max

What are futures markets telling us?

- Corn: \$4.40 to \$5.40
- Wheat: \$5.25 to \$6.20
- Soybean: \$9.75 to \$11.50
- Cotton: \$0.65 to \$0.73

How long are you willing to store old crop?

Contract	Price
Mar	\$4.84
May	\$4.94
Jul	\$4.95
Sep	\$4.61
Dec	\$4.59

Contract	Price
Mar	\$10.56
May	\$10.68
Jul	\$10.78
Aug	\$10.71
Sep	\$10.47
Nov	\$10.46

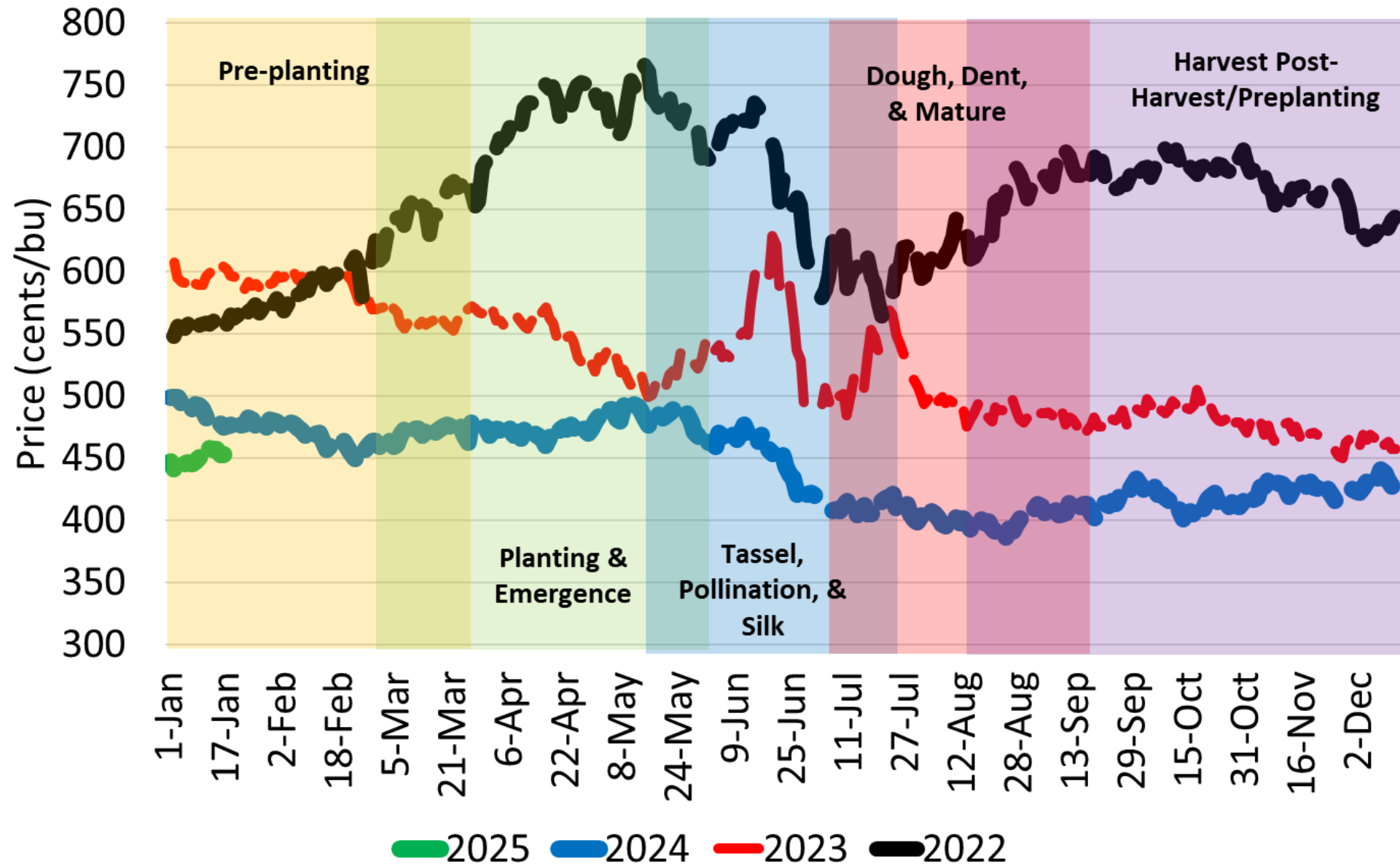
Contract	Price
Mar	71.24
May	72.44
Jul	73.42
Oct	72.57
Dec	71.98

Contract	Price
Mar	\$5.54
May	\$5.67
Jul	\$5.78
Sep	\$5.92
Dec	\$6.11

Identifying Risk and Timing

- When does production risk occur?
- When does risk decrease?
- When are prices typically highest?
- Are markets near the top of the cycle or bottom?

December Corn Futures and Tennessee Production Stages



Percent of projected production priced at different times of the year?

No Storage

- Pre-planting: 10-25%
- March–July: 25-75%
- August-Harvest: 75% - 100%

Storage

- Pre-planting: 0%-25%
- March–July: 0%-50%
- August-Harvest: 25-75%
- Post harvest: 25%-100%

Pricing into market rallies

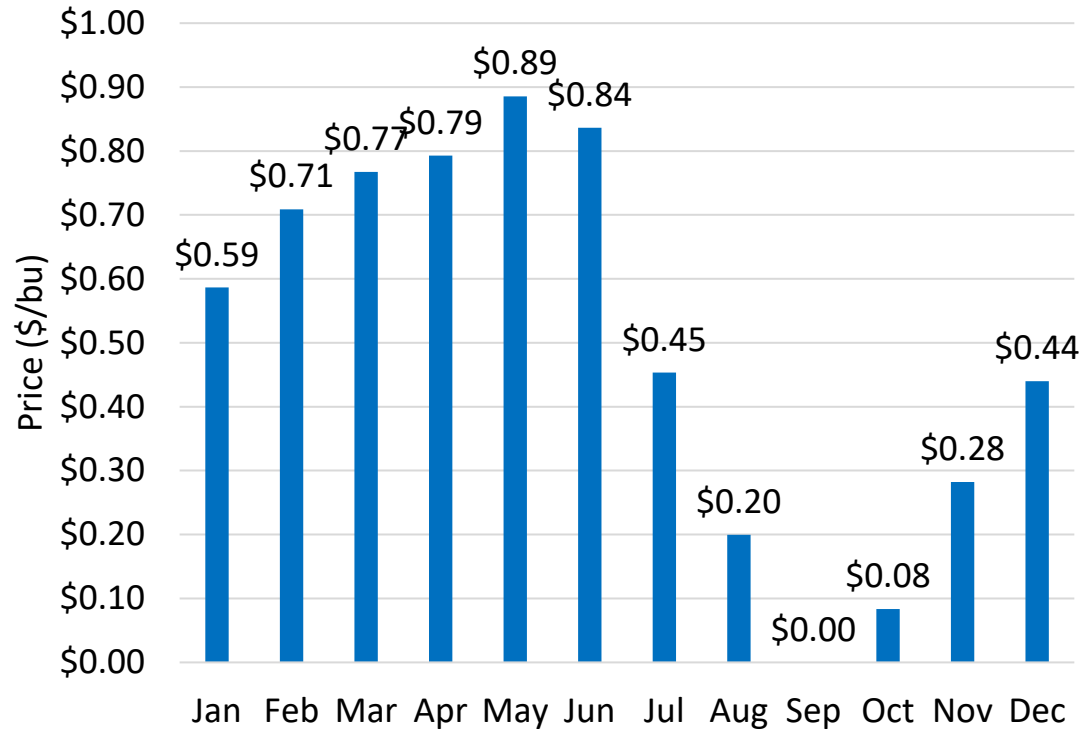
- Price incrementally (5-10% of production for each 25-cent increase in the market)
- Adhere to limits (don't over price relative to expected production for the time of year)

Post Harvest Sales

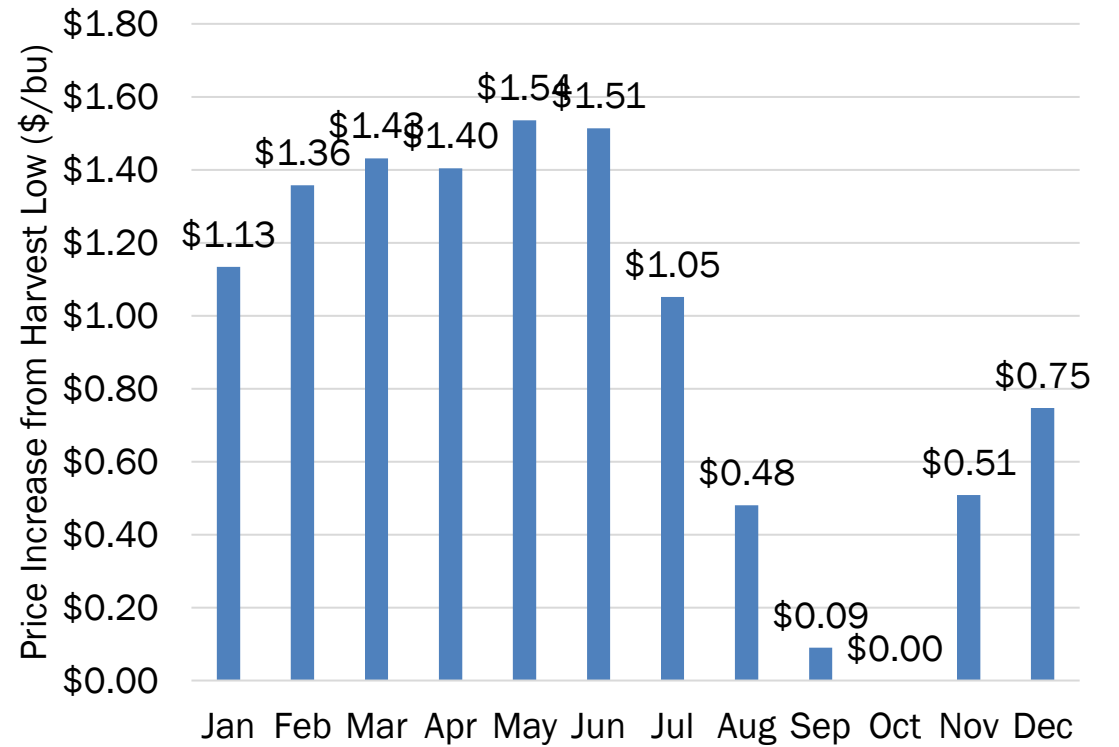
- Permanent storage capacity
- Temporary storage
- Re-ownership strategies using futures and options markets
- Seasonal price patterns
- Which commodity is paying to store?

Storage

Tennessee Corn - 10 Year Average Cash Price Improvement from the September Low, 2013/14 to 2023/24



Tennessee Soybean - 10 Year Average Cash Price Increase from the October Low, 2013/14 to 2023/24



Does it pay to store the crop?

Corn

Contract	Months	Futures Price	Projected Basis	Price Spread	Interest	Spread-Interest
Dec	-	\$4.26	\$0.00	-	-	-
Mar	3	\$4.35	\$0.00	\$0.09	\$0.09	\$0.00
May	5	\$4.41	\$0.00	\$0.15	\$0.15	\$0.00
Jul	7	\$4.43	\$0.00	\$0.17	\$0.21	-\$0.04

Soybean

Contract	Months	Futures Price	Projected Basis	Cash Spread	Interest	Spread-Interest
Jan	-	\$9.95	\$0.00	-	-	-
Jan	1	\$9.95	\$0.00	\$0.00	\$0.07	-\$0.07
Mar	3	\$10.00	\$0.00	\$0.05	\$0.21	-\$0.16
May	5	\$10.12	\$0.00	\$0.17	\$0.35	-\$0.18
Jul	7	\$10.24	\$0.00	\$0.29	\$0.49	-\$0.20
Aug	8	\$10.22	\$0.00	\$0.27	\$0.56	-\$0.29

Producers need to consider:

- 1) Carry in the futures market
- 2) Expected Basis
- 3) Interest Cost
- 4) Storage Costs

Operating loan interest rate

8.5%

Monthly interest cost (corn)

\$0.030

Monthly interest cost (soybean)

\$0.070

Futures and Basis

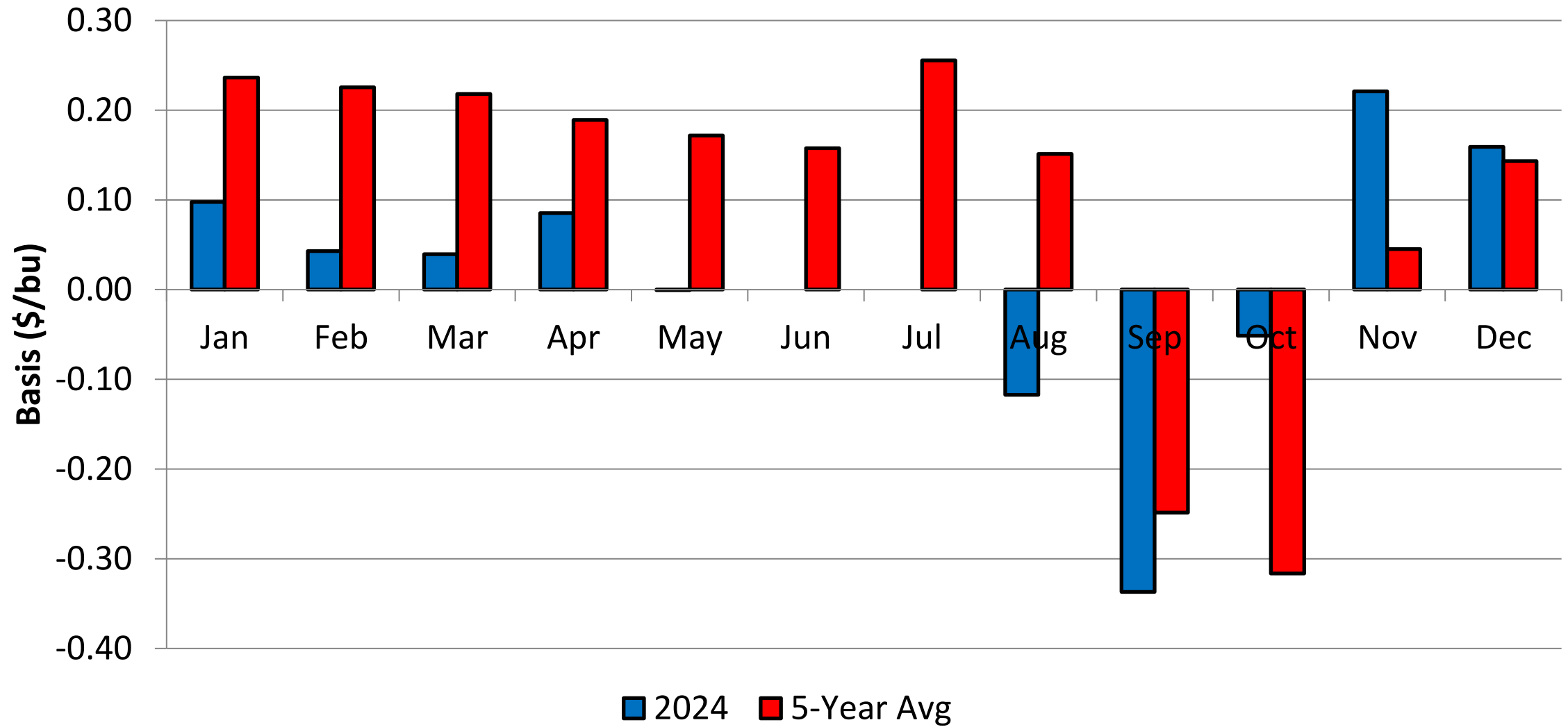
- Disaggregate Cash Price
 - Cash Price = Futures Price + **Basis**
 - Ex. \$5.45 = \$4.85 + \$0.60
- Futures ~ 80-95% of price risk
- Basis ~ 5-20% of price risk
- Futures are reflective of national/global supply and demand
- Basis is reflective of local supply and demand

Basis Opportunities

- Production
- Storage capacity
- Transportation
- Market Access



Tennessee Average Monthly Corn Basis (Elevators and Barge Points), 5-Year Average and 2024





Reports and production cycles

SEASONAL FACTORS / MARKET MOVERS

What I look at?

Daily

- Futures prices and charts
- Options prices
- Agricultural press articles
- Daily text updates from brokers/market experts
- Weather forecasts (U.S. and International)

Weekly

- Export sales data
- Crop progress reports
- Commitment of traders report
- Basis changes in Tennessee (AMS, Woodall, Tyson, Other)
- Weekly market summary

Monthly

- WASDE reports
- Crop Production reports
- Monthly summaries

Point in Time

- Winter wheat planting – January
- Prospective planting – March
- Acreage report – June
- Prevent planting / FSA acres – August
- Quarterly Grain Stocks

What Resources Does UT Provide?

- Crop Budgets
 - <https://arec.tennessee.edu/extension/budgets/>
- Weekly Market Highlights
 - <https://arec.tennessee.edu/extension/tennessee-market-highlights/>
- Monthly WASDE Summary and Profitability Outlook
 - <https://arec.tennessee.edu/extension/tennessee-market-highlights/monthly-crop-comments/>
- Southern Ag Today
 - <https://southernagtoday.org/>

Market Analysis

- Fundamental analysis
 - Attempts to measure a commodity's intrinsic value by examining related economic and financial factors, which can be both qualitative and quantitative in nature.
 - Example: USDA Reports
- Technical analysis
 - A trading discipline employed to identify trading opportunities by analyzing statistical trends gathered from trading activity, such as price movement and volume.
 - Unlike fundamental analysts, who attempt to evaluate a commodity's intrinsic value, technical analysts focus on patterns of price movements, trading signals and various other analytical charting tools to evaluate a commodity's strength or weakness.

March Corn Futures Contract



WASDE Estimates Change the Price Outlook Throughout the Year

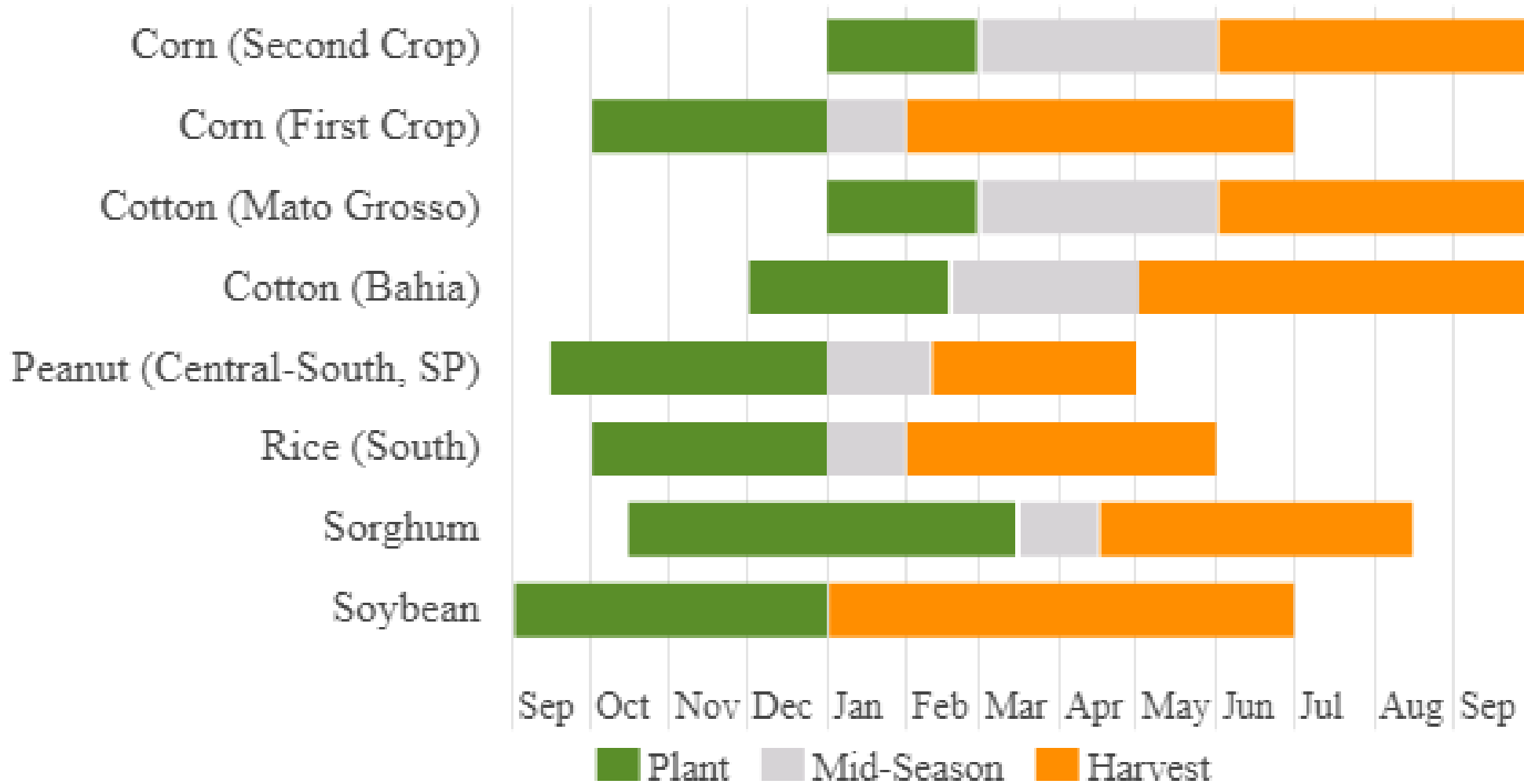
	<u>2024/25 Marketing Year Projections</u>			
	September	January	Change	% Change
Planted (million)	90.7	90.6	-0.1	-0.1%
Harvested (million)	82.7	82.9	0.2	0.2%
U.S. Avg. Yield (bu/acre)	183.6	179.3	-4.3	-2.3%
Beg. Stocks	1,812	1,763	-49	-2.7%
Production	15,186	14,867	-319	-2.1%
Imports	25	25	0	0.0%
Total Supply	17,022	16,655	-367	-2.2%
Feed and Residual	5,825	5,775	-50	-0.9%
Ethanol	5,450	5,500	50	0.9%
Food, Seed & Industrial	1,390	1,390	0	0.0%
Exports	2,300	2,450	150	6.5%
Total Use	14,965	15,115	150	1.0%
U.S. Ending Stocks	2,057	1,540	-517	-25.1%
Foreign Stocks	10,082	10,008	-74	-0.7%
U.S. Mrk. Year Avg. Price (\$/bu)	\$4.10	\$4.25	\$0.15	3.7%
U.S. Stocks/Use	13.7%	10.2%	-3.6%	-25.9%

Production / Export Timing for Competitors

- Soybeans
 - Brazil, Argentina
- Corn
 - Brazil, Argentina, Ukraine,
- Wheat
 - Argentina, Ukraine, Russia, Canada, Australia, Kazakhstan, European Union.

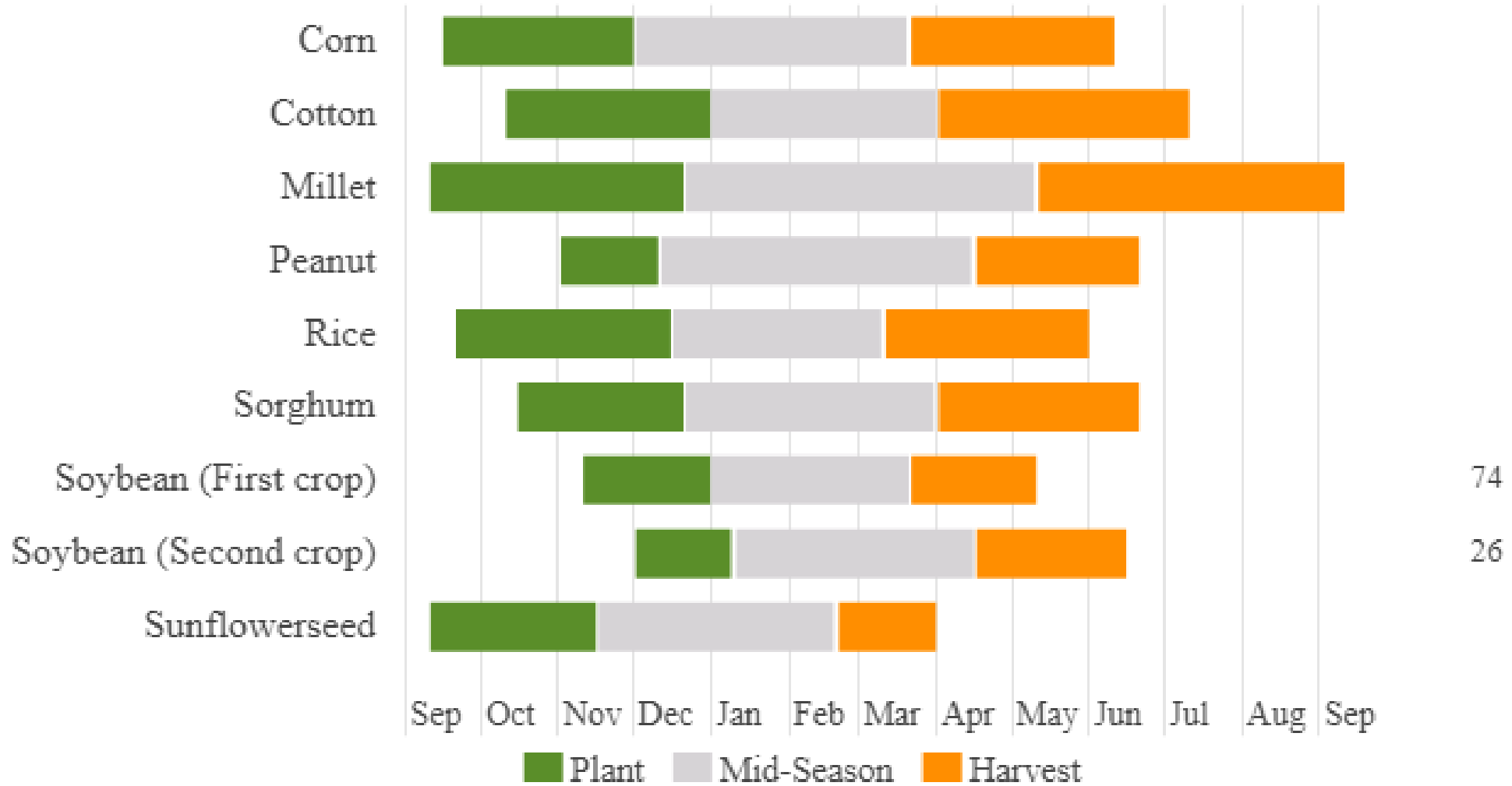
Brazil

Percent of Total
Production (%)



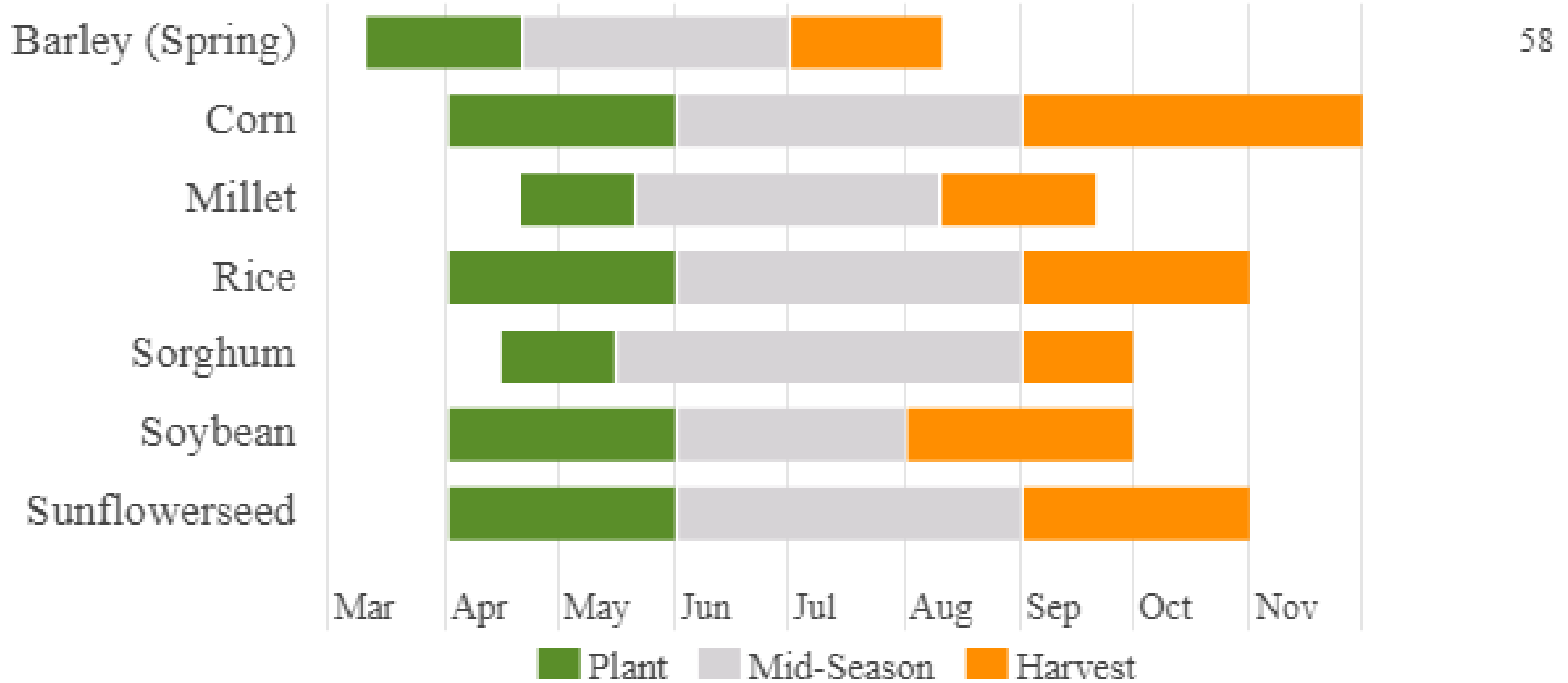
Argentina

Percent of Total
Production (%)



Ukraine

Percent of Total
Production (%)

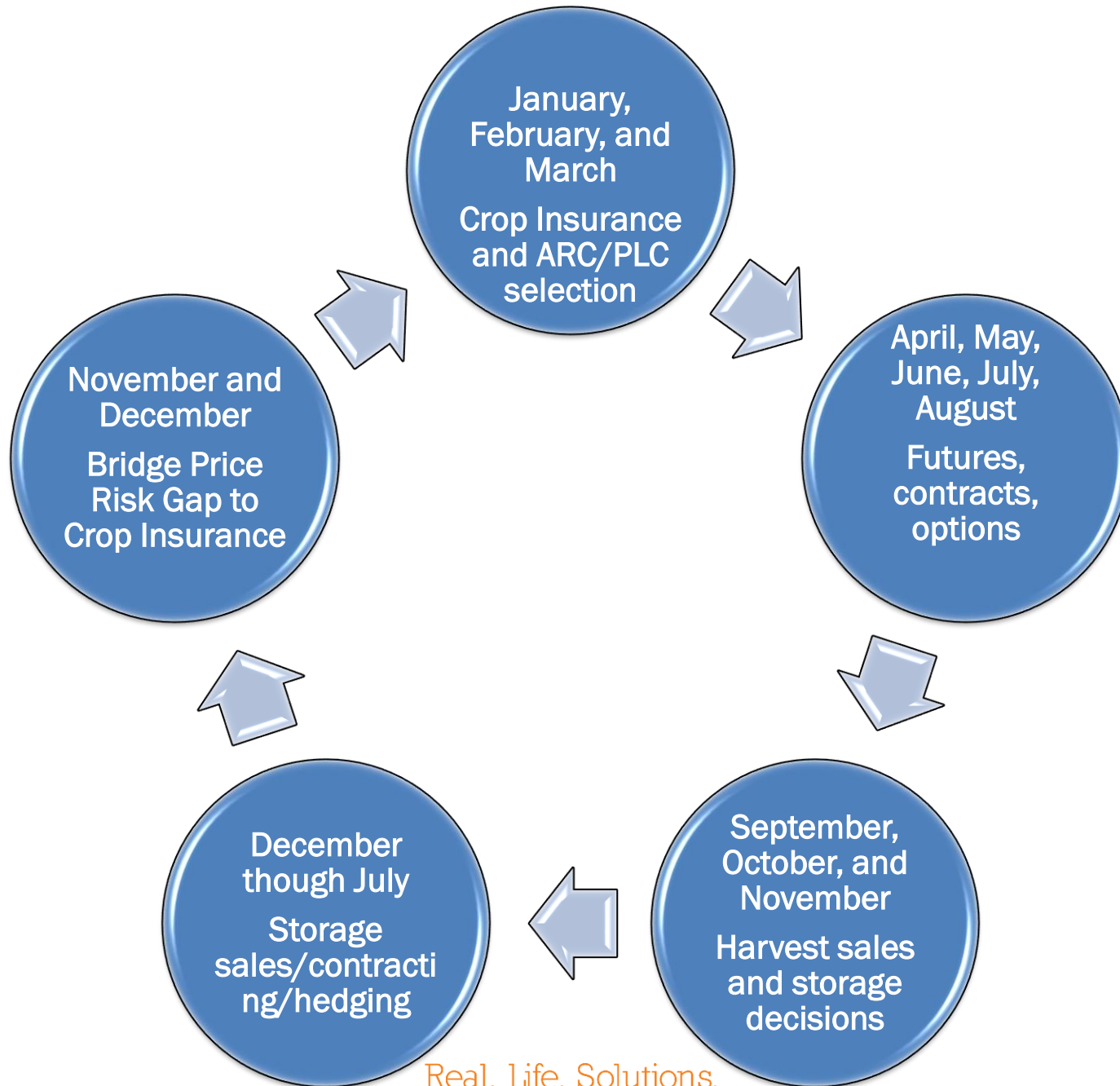




What are you comfortable using?

MARKETING TOOLS

Crop Marketing Cycle



Real. Life. Solutions.

How much risk are you willing to take?



Risk Bearing Capacity

Managing Risk

- How much are you willing to risk losing?



Identify Available Tools

- Crop Insurance / Commodity Programs
- Managed Products
- Cash Sales
- Contracts
- Futures / Options
- Storage

What is your comfort level with different marketing tools and strategies?

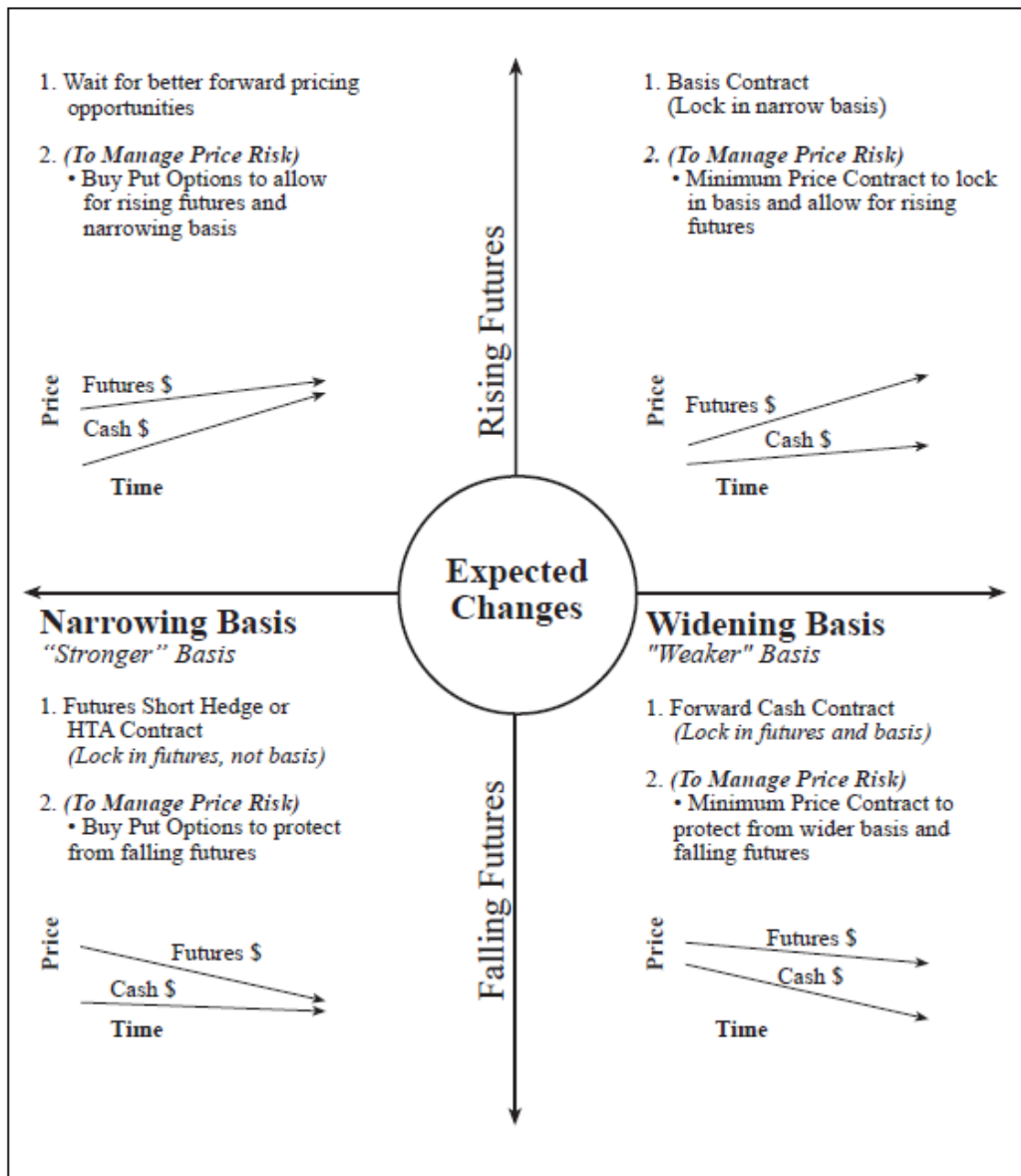
Different strategies work better under different market conditions.

Table 1. Price Trend Effects and Risk Exposure with Various Grain Pricing Alternatives

Pricing Alternatives	Price Trend Effects				Areas of Risk Exposure			
	Falling	Rising	Wider	Narrower	Options	Production	Counter	Control
	Futures Prices	Futures Prices	Cash Basis	Cash Basis	Volatility	Risk if Preharvest	Party Risk	Risk
Cash Market (Harvest & postharvest sales)	(-)	(+)	(-)	(+)	-	-	-	Yes
Forward Contracts								
Forward Cash Contract	None	None	None	None	-	Yes	Yes	-
Basis Contract	(-)	(+)	None	None	-	Yes	Yes	Yes
Hedge-To-Arrive (HTA) Contract (non-rolling)	None	None	(-)	(+)	-	Yes	Yes	Yes
Minimum Price Contract	None	(+)	None	None	Yes	Yes	Yes	Yes
Price Later Contract	(-)	(+)	(-)	(+)	-	-	Yes	Yes
Futures & Options								
Futures Short Hedge (Sell futures, owning cash grain)	None	None	(-)	(+)	-	Yes	-	Yes
Buy Put Options (Setting futures price floors)	(+)	(-)	(+)	Yes	Yes	-	Yes	
Sell Cash, Buy Call Options (Harvest sale & buying call option)	None	(+)	None	None	Yes	-	-	Yes
Other Marketing Tools								
Marketing Loan with LDPs (LDP: Loan Deficiency Payment)	None	(+)	(-)	(+)	-	-	-	Yes

Risk Exposure and Price Trend

Chart 1. Preharvest Grain Sales Strategies for Selected Market Conditions



Market Expectations

What is happening with prices? Trend and volatility.

What is happening globally, domestically, and locally with supply and demand?

Is there a greater likelihood of futures and basis strengthening or weakening?

EXAMPLE

Short Hedge, Buy a Put Option, Buy a Call Option Spread, Call Option Spread, Bridging the Price Risk Gap

BASIC STRATEGIES AND EXAMPLES

Examples

01

Short hedge – set futures price

02

Put option – set a price floor

03

Call option spread – participate in market rallies, with a defined maximum loss and gain.

04

Option straddle - buying a call and put with the same strike price and expiration date.

What is hedging?

- Buying or selling futures contracts as protection against the risk of loss due to changing futures prices.



Producers Using a Short Hedge

- The price is locked in except for changes in the basis.
 - A strengthening basis increases net cash price received.
 - A weakening basis reduces net cash price received.
 - Changes in the futures market price will not.
- Production risk
- Margin calls / cost of capital
- Transaction costs
- Counterparty risk

Short Hedge: Corn Example

Date	Cash	Futures	Basis	
April	Plant Crop Cash Price @ \$5.20	Sell Dec @ \$4.50	Expected Basis = +\$0.70	Expected Sales Price = \$5.20
October	Sell Cash Crop \$4.70	Buy Dec @ \$4.00	Actual Basis = +\$0.70	
	Loss in Cash = \$4.70-\$5.20 =-\$0.50	Gain in Futures = \$4.50-\$4.00 =+\$0.50	Change in Basis = \$0	Net Price Received = \$5.20 -\$0.50 +\$0.50 = \$5.20

Buying Put Options: What is a Put Option?



Put: an option to sell a futures contract at a specific price (strike price).



Buyer of the put has the right but not the obligation to sell a futures contract at a specific “Strike Price” at anytime during a given period.



Buyer pays a premium to the seller for that right (loss limited to the premium).

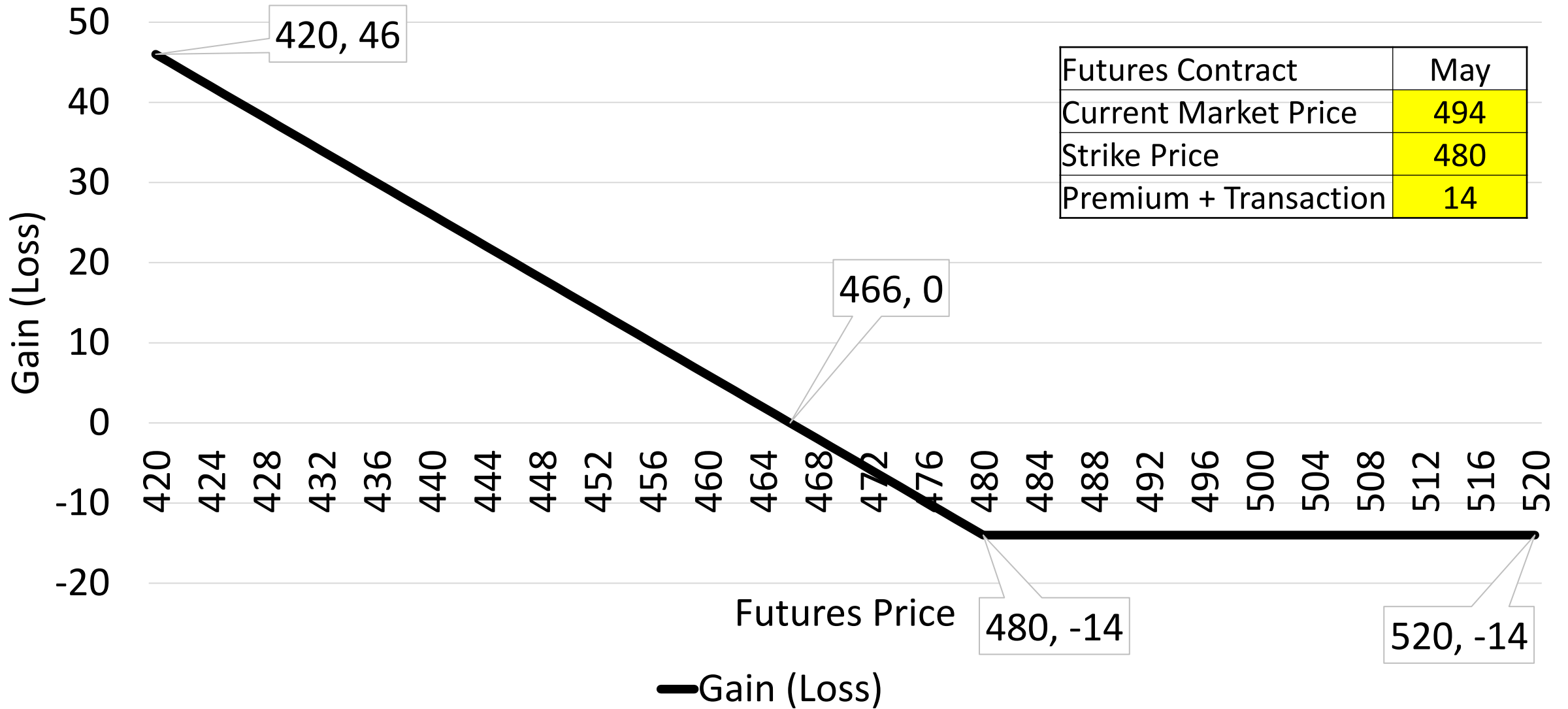


Seller receives the premium and has an obligation to buy the futures contract at the “Strike Price” if the buyer “exercises” the option (unlimited loss potential).

Producers Buying Put Options

- Producers may like put options because they:
 - Maximum loss is defined (premium + transaction costs).
 - Limit downside futures price risk
 - Have no margin requirements
 - Allows them to participate in futures market rallies
 - Premiums can be offset with other options strategies
 - They can use at-the-money or out-of-the money strategies based on risk preference and premium cost

Buy a May Corn Put Option - Net Gain (Loss)

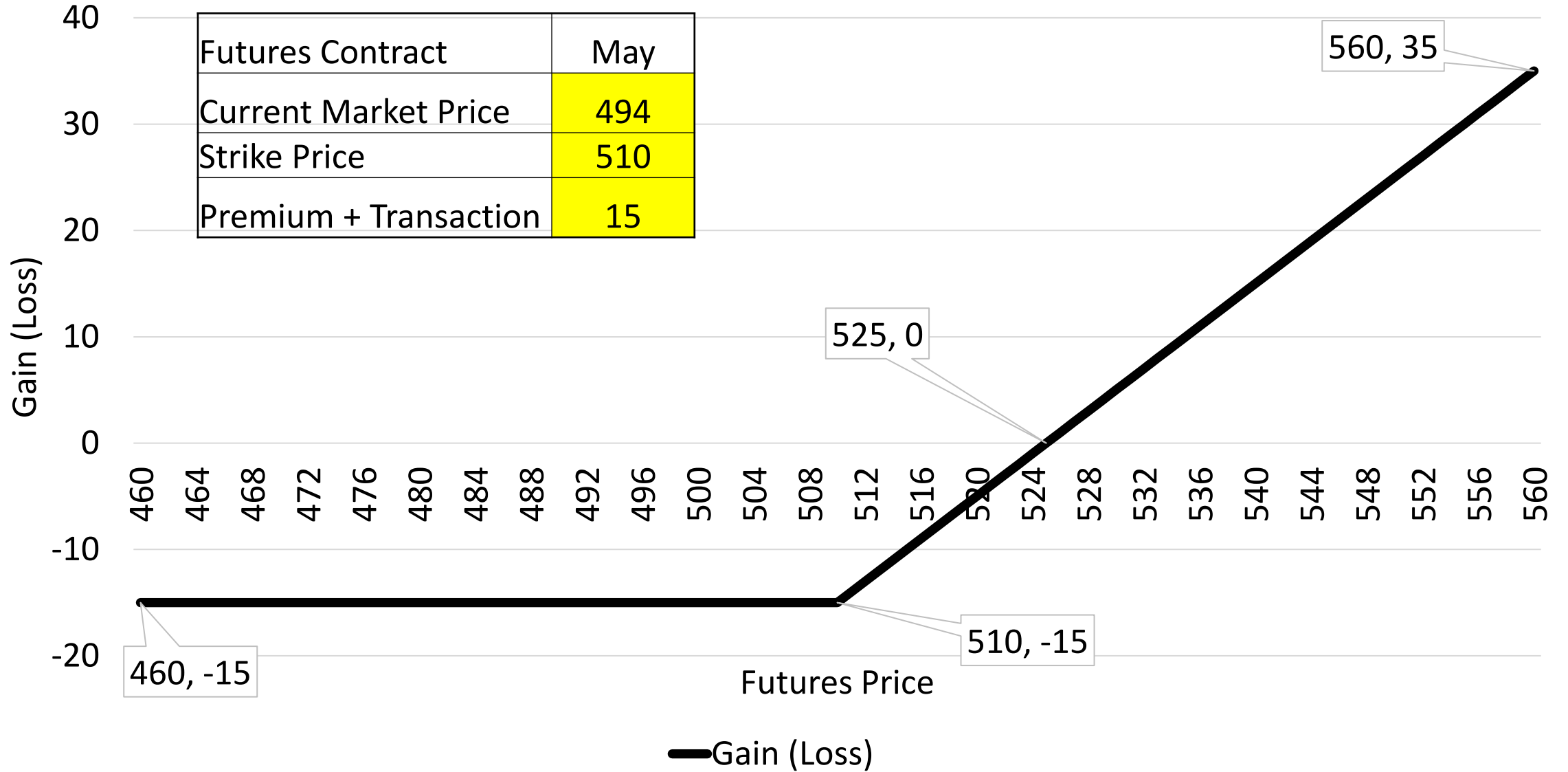


Buying Call Options

- Call option—a contract that entitles the buyer the right, but not the obligation, to purchase an underlying futures contract at a stipulated strike price at any time up to the expiration of the option.
- The buyer pays a premium to the seller for this contract.
- Seller receives the premium and has an obligation to sell the futures contract at the “Strike Price” if the buyer “exercises” the option (unlimited loss potential).
- A call option is bought with the expectation of a rise in prices.

Buy a Call Option - Net Gain (Loss)

Futures Contract	May
Current Market Price	494
Strike Price	510
Premium + Transaction	15



Producers Buying Call Options

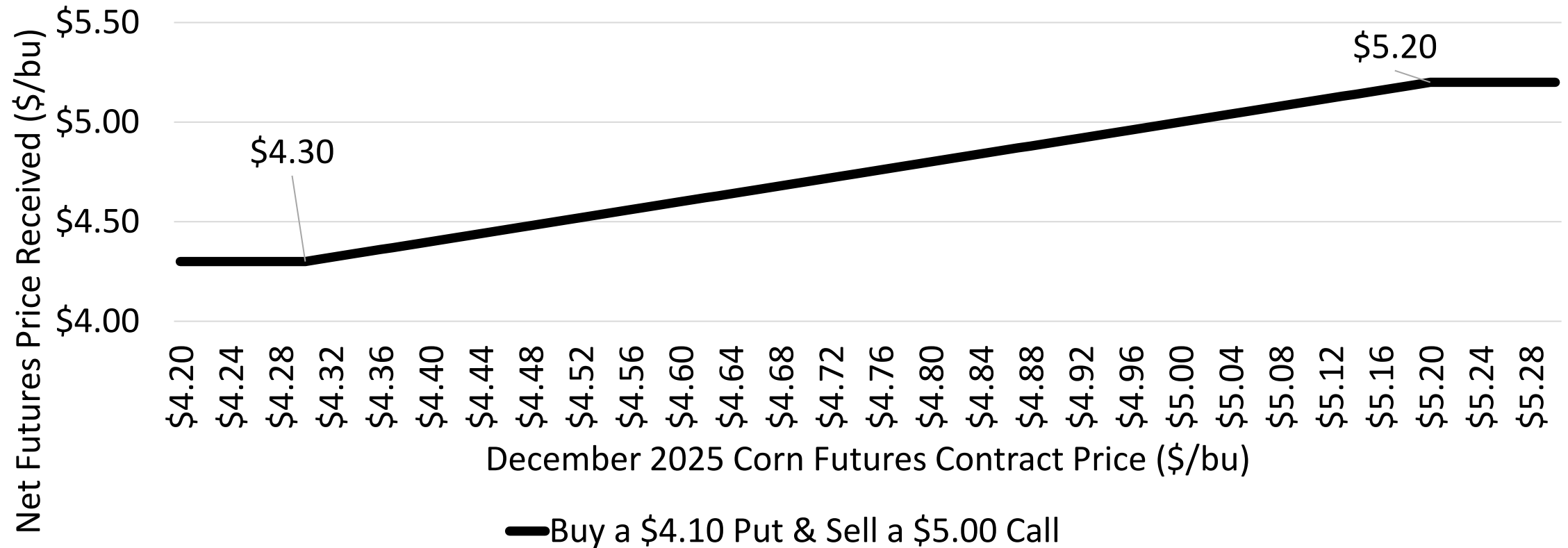
- Producers may like call options because they:
 - Can participate in rallies in the futures market.
 - Maintain a financial position for a sold commodity.
 - No margin requirements.
 - Premiums can be offset with other options strategies
 - They can use at-the-money or out-of-the money strategies based on risk preference and premium cost

Selling Options

- Collect premiums
- Margin is required
- Can be used in conjunction with option purchases to reduce out of pocket premium costs.

Option Fence

December Corn: Buy a \$4.30 Put & Sell a \$5.20 Call; Premium Washed Out



— Buy a \$4.10 Put & Sell a \$5.00 Call

Input Purchases

- End of calendar year decisions through planting
- When purchasing inputs, it is worth considering laying off input purchases with output price risk
 - Example. bridging the price risk gap to crop insurance

Number of Bushels to Cover Specified Cost at Three Prices

Cost Category	Cost (\$/acre)	\$10.00	\$12.00	\$14.00
Seed	\$63	6.3	5.3	4.5
Fertilizer & Lime	\$60	6.0	5.0	4.3
Chemical	\$80	8.0	6.7	5.7
Crop Scout or Consultant	\$10	1.0	0.8	0.7
Repair & Maintenance	\$35	3.5	2.9	2.5
Fuel, Oil & Filter	\$18	1.8	1.5	1.3
Operator Labor	\$9	0.9	0.8	0.6
Crop Insurance	\$15	1.5	1.3	1.1
Operating Interest ⁷	\$12	1.2	1.0	0.9
Total Variable Expenses	\$302	30.2	25.2	21.6
Capital Recovery	\$115	11.5	9.6	8.2
General Overhead	\$20	2.0	1.7	1.4
Cash Rent	\$150	15.0	12.5	10.7
Total Fixed Expenses	\$285	28.5	23.8	20.4
Total Expenses	\$587	58.7	48.9	42.0

Example: Bridging the price risk gap until crop insurance prices are determined – put option

- Example: Bridging the price risk gap until crop insurance prices are determined – put option
 - On November 14, a \$5.20 December 2024 Corn Put Option cost \$0.44, setting a \$4.76 futures floor.
 - If December 2024 corn <\$4.76, in the money
 - After crop insurance prices are determined:
 - Out-of-the money: exit options position recoup premium.
 - In-the-money: maintain the position as price protection.

Execute and Evaluate

- Make all decisions based on well thought analysis and risk preferences.
 - Wishing and hoping ruin good marketing and risk management plans.
- Execute the strategy – be comfortable with the potential range of outcomes.
- Examine successes and failures from the strategy employed
 - Was the result what you expected?
 - Why or why not?

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THANK YOU

