
Marketing Basics

Cash Sale, Forward Contracts, Put Options

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Introduction to Grain Marketing

Forward Contracts, Options & Futures

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Types of Grain Marketing Tools

- Cash Grain Sales
 - Forward Contracts
 - Basis Contracts
 - Hedge-to-Arrive (HTA) Contracts
 - Minimum Price Contracts
 - Average \$ Contracts
 - Marketing Loans (FSA)
 - Short Futures Hedges
 - Buying Put Options
 - Forward Contract & Buying Call Options
 - Combinations of Buying Puts & Calls
 - Price Later Contracts
 - Over-the-Counter (OTC) Contracts
-

Types of Forward Contracts

Commitment for Future Sale & Delivery of Grain

- **Forward Cash Contracts**
 - Cash Price, quantity (bu.) & delivery date are set
 - *BOTH futures selling price & local cash basis are determined*
 - **Basis Contract**
 - Local Basis, quantity (bu.) & delivery date are set
 - **Hedge-to-Arrive (HTA) Contract**
 - Futures Price, quantity (bu.) & delivery date are set
 - **Minimum Price Contract**
 - Minimum Cash \$, quantity (bu.) & delivery date are set
-

2011 U.S. National Average Loan Rates

- Wheat (HRW) \$2.94 /bu
- Corn \$1.95 /bu
- Grain Sorghum \$3.48 /cwt (\$1.95 /bu)
- Soybeans \$5.00 /bu
- Sunflower-Oil Type \$10.09 /cwt
- Canola \$10.09 /cwt
- Upland Cotton \$0.52 /lb

2011 Grain Marketing Loan Rates for Saline County, Kansas

- Wheat (HRW) \$3.18 /bu
- Corn \$2.03 /bu
- Grain Sorghum \$3.43 /cwt (\$1.92 /bu)
- Soybeans \$5.00 /bu
- Sunflower-Oil Type \$10.55 /cwt
- Canola \$8.86 /cwt

Marketing Assistance Loans (USDA-FSA)

- **Grain Sale Cash Flow Coverage**
 - Provides grain producers with interim financing to meet cash flow needs without having to sell their commodities when market prices are typically at harvest-time lows
- **Marketing Loans are “Non-Recourse”**
 - The grain is pledged as loan collateral
 - Producers have the option of delivering the grain to the Commodity Credit Corporation (CCC) as full payment for the loan at maturity
 - Under some circumstances, producers may repay marketing loans at less than principal plus accrued interest and other charges
- **Alternative: Loan Deficiency Payment (LDP)**
 - In lieu of a marketing assistance loan, grain producers may be eligible for an LDP

Hedging Prices by “Selling” Futures

- **“Short Hedges” Lock in Grain Futures \$s**
 - Removing futures price variation as a source of risk
 - Are taking a “short” or “sell” position in grain futures
 - “Selling” KCBT July 2012 Wheat or CBOT DEC 2012 Corn
 - Subject to “margin calls” to maintain equity or dollar value of the futures margin account
- **“Hedging” versus “Speculating” in Futures**
 - Hedges work if enough grain is produced & sold in the cash market to cover the futures market position
 - However, producers would be in a speculative position IF crop production < futures contract position

Hedging With Futures

■ “Pricing” Hedges on Grain Production

1) (Prehedge) Analyze hedging opportunity

- *Futures less Basis less Brokers' fees*

2) (Placing the Hedge) Sell futures contract(s)

nearest to the grain delivery period

- In a “Short” or “sell” futures position

3) (Closing Out the Hedge Position)

- Buy back futures contract(s)
- Sell cash grain (optional)



Wheat Hedge Example (Cash Basis: \$0.40 under)

| Transaction | Falling Wheat Futures (↓ \$1 /bu) | | | Rising Wheat Futures (↑ \$1 /bu) | | |
|----------------------|-----------------------------------|------------|------------------------|----------------------------------|------------|------------------------|
| | Before Harvest | At Harvest | Total Payment Received | Before Harvest | At Harvest | Total Payment Received |
| KCBT Futures | | \$ ↓ | | | \$ ↑ | |
| Futures Price | \$5.00 | \$4.00 | | \$5.00 | \$6.00 | |
| Bu. Sold | 10,000 | | | 10,000 | | |
| Bu. Bought | | | | | | |
| Gain (Loss) /bu | | | | | | |
| Total Gain (Loss) | | | | | | |
| Harvest Sales | | | | | | |
| Price @ Harvest | | | | | | |
| Bu. Delivered | | | | | | |
| Harvest Sales | | | | | | |
| Total Revenue | | | | | | |

Wheat Hedge Example (Cash Basis: \$0.40 under)

| Transaction | Falling Wheat Futures (↓ \$1 /bu) | | |
|----------------------|-----------------------------------|------------|------------------------|
| | Before Harvest | At Harvest | Total Payment Received |
| KCBT Futures | | \$ ↓ | |
| Futures Price | \$5.00 | \$4.00 | |
| Bu. Sold | 10,000 | | |
| Bu. Bought | | 10,000 | |
| Gain (Loss) /bu | | +\$1.00 | |
| Total Gain (Loss) | | +\$10,000 | +\$10,000 |
| Harvest Sales | | | |
| Price @ Harvest | | | |
| Bu. Delivered | | | |
| Harvest Sales | | | |
| Total Revenue | | | |

Wheat Hedge Example (Cash Basis: \$0.40 under)

| Transaction | Falling Wheat Futures (↓ \$1 /bu) | | |
|----------------------|-----------------------------------|------------|------------------------|
| | Before Harvest | At Harvest | Total Payment Received |
| KCBT Futures | | \$ ↓ | |
| Futures Price | \$5.00 | \$4.00 | |
| Bu. Sold | 10,000 | | |
| Bu. Bought | | 10,000 | |
| Gain (Loss) /bu | | +\$1.00 | |
| Total Gain (Loss) | | +\$10,000 | +\$10,000 |
| Harvest Sales | | | |
| Price @ Harvest | | \$3.60 | |
| Bu. Delivered | | 10,000 | |
| Harvest Sales | | +\$36,000 | +\$36,000 |
| Total Revenue | | | \$46,000 |

Wheat Hedge Example (Cash Basis: \$0.40 under)⁴

| Transaction | Rising Wheat Futures (↑ \$1 /bu) | | |
|----------------------|----------------------------------|------------|------------------------|
| | Before Harvest | At Harvest | Total Payment Received |
| KCBT Futures | | \$ ↑ | |
| Futures Price | \$5.00 | \$6.00 | |
| Bu. Sold | 10,000 | | |
| Bu. Bought | | 10,000 | |
| Gain (Loss) /bu | | (\$1.00) | |
| Total Gain (Loss) | | (\$10,000) | (\$10,000) |
| Harvest Sales | | | |
| Price @ Harvest | | | |
| Bu. Delivered | | | |
| Harvest Sales | | | |
| Total Revenue | | | |

Wheat Hedge Example (Cash Basis: \$0.40 under)⁵

| Transaction | Rising Wheat Futures (↑ \$1 /bu) | | |
|----------------------|----------------------------------|------------|------------------------|
| | Before Harvest | At Harvest | Total Payment Received |
| KCBT Futures | | \$ ↑ | |
| Futures Price | \$5.00 | \$6.00 | |
| Bu. Sold | 10,000 | | |
| Bu. Bought | | 10,000 | |
| Gain (Loss) /bu | | (\$1.00) | |
| Total Gain (Loss) | | (\$10,000) | (\$10,000) |
| Harvest Sales | | | |
| Price @ Harvest | | \$5.60 | |
| Bu. Delivered | | 10,000 | |
| Harvest Sales | | +\$56,000 | +\$56,000 |
| Total Revenue | | | \$46,000 |

Wheat Hedge Example (Cash Basis: \$0.40 under)⁶

| Transaction | Falling Wheat Futures (↓ \$1 /bu) | | | Rising Wheat Futures (↑ \$1 /bu) | | |
|----------------------|-----------------------------------|------------|------------------------|----------------------------------|------------|------------------------|
| | Before Harvest | At Harvest | Total Payment Received | Before Harvest | At Harvest | Total Payment Received |
| KCBT Futures | | \$ ↓ | | | \$ ↑ | |
| Futures Price | \$5.00 | \$4.00 | | \$5.00 | \$6.00 | |
| Bu. Sold | 10,000 | | | 10,000 | | |
| Bu. Bought | | 10,000 | | | 10,000 | |
| Gain (Loss) /bu | | +\$1.00 | | | (\$1.00) | |
| Total Gain (Loss) | | +\$10,000 | +\$10,000 | | (\$10,000) | (\$10,000) |
| Harvest Sales | | | | | | |
| Price @ Harvest | | \$3.60 | | | \$5.60 | |
| Bu. Delivered | | 10,000 | | | 10,000 | |
| Harvest Sales | | +\$36,000 | +\$36,000 | | +\$56,000 | +\$56,000 |
| Total Revenue | | | \$46,000 | | | \$46,000 |

Forward Contract Vs Futures Hedge

■ If Basis Projection is Accurate, then..

- Forward Contract \$ = Futures Hedge \$



■ Who Carries the Futures Account?

- **FC:** Elevator contacts broker & pays any margin calls
- **Hedge:** Producer works w. broker, pays margin calls

■ Delivery Commitment?

- **FC:** Delivery commitment of X bushels for \$X price
- **Hedge:** No delivery commitment to elevator



■ Basis Commitment?

- **FC:** Set cash basis / **Hedge:** Varying cash basis

Buying Grain Put Options

Setting Futures Price Floors by Buying Put Options

■ Why Buy Put Options?

- “Puts” provide protection from falling grain futures prices
- If grain producer-sellers buy put options, they are protecting themselves from falling grain futures prices
 - But, they are leaving themselves the opportunity to still benefit if grain futures prices should rise
- Similar to “Minimum Price Contracts”

■ Technical Definition of Put Options

- Puts provide “the right but not the obligation” to take “short” or “sell” positions in futures markets
 - Avoiding margin calls that are possible with “Short Hedges”

Mechanics of Buying Grain Put Options

■ Strike Price = Grain Futures “Insurance” Level

- “In-the-Money” Put Strike Price > Futures Price
- “At-the-Money” Put Strike Price = Futures Price
- “Out-of-the-Money” Put Strike Price < Futures Price

■ Put “Premium” ⇒ Cost of Buying Put Option

■ Futures Price Floor with Put Options

- $\text{Strike Price}^{(\text{Put})} - \text{Premium}^{(\text{Put})} - \text{Brokers Fee}$

■ “Expected” Cash Price Floor with Put Options

- $\text{Strike Price}^{(\text{Put})} - \text{Premium}^{(\text{Put})} - \text{Brokers Fee} - \text{Basis}^{(\text{Est.})}$

Wheat Put Option Example (Basis \$0.40 under)

| Transaction | Falling Wheat Futures (↓ \$1 /bu) | | | Rising Wheat Futures (↑ \$1 /bu) | | |
|---|-----------------------------------|------------|------------------|----------------------------------|------------|------------------|
| | Before Harvest | At Harvest | Payment Received | Before Harvest | At Harvest | Payment Received |
| KCBT PUTS | | \$ ↓ | | | \$ ↑ | |
| Futures Price | \$5.00 | \$4.00 | | \$5.00 | \$6.00 | |
| PUT Strike Price | \$5.00 | | | \$5.00 | | |
| PUT Premium <small>\$/bu</small> | \$0.75 | | | \$0.75 | | |
| Qty. Bought (bu) | 10,000 | | | 10,000 | | |
| Qty. Sold (bu) | | | | | | |
| Gain (Loss) /bu | | | | | | |
| Total Gain (Loss) | | | | | | |
| Harvest Sales | | | | | | |
| Price @ Harvest | | | | | | |
| Bu. Delivered | | | | | | |
| Harvest Sales | | | | | | |
| Total Revenue | | | | | | |

Wheat Put Option Example (Basis \$0.40 under)

| Transaction | Falling Wheat Futures (↓ \$1 /bu) | | |
|---|-----------------------------------|---------------|------------------|
| | Before Harvest | At Harvest | Payment Received |
| KCBT PUTS | | \$ ↓ | |
| Futures Price | \$5.00 | \$4.00 | |
| PUT Strike Price | \$5.00 | \$5.00 | |
| PUT Premium <small>\$/bu</small> | \$0.75 | \$1.00 | |
| Qty. Bought (bu) | 10,000 | | |
| Qty. Sold (bu) | | 10,000 | |
| Gain (Loss) /bu | | +\$0.25 | |
| Total Gain (Loss) | | +\$2,500 | +\$2,500 |
| Harvest Sales | | | |
| Price @ Harvest | | | |
| Bu. Delivered | | | |
| Harvest Sales | | | |
| Total Revenue | | | |

Wheat Put Option Example (Basis \$0.40 under)

| Transaction | Falling Wheat Futures (↓ \$1 /bu) | | |
|---------------------------------------|-----------------------------------|------------|------------------|
| | Before Harvest | At Harvest | Payment Received |
| KCBT PUTS | | \$ ↓ | |
| Futures Price | \$5.00 | \$4.00 | |
| PUT Strike Price | \$5.00 | \$5.00 | |
| PUT Premium <small>/bu</small> | \$0.75 | \$1.00 | |
| Qty. Bought (bu) | 10,000 | | |
| Qty. Sold (bu) | | 10,000 | |
| Gain (Loss) /bu | | +\$0.25 | |
| Total Gain (Loss) | | +\$2,500 | +\$2,500 |
| Harvest Sales | | | |
| Price @ Harvest | | \$3.60 | |
| Bu. Delivered | | 10,000 | |
| Harvest Sales | | +\$36,000 | +\$36,000 |
| Total Revenue | | | \$38,500 |

Wheat Put Option Example (Basis \$0.40 under)

| Transaction | Rising Wheat Futures (↑ \$1 /bu) | | |
|---------------------------------------|----------------------------------|------------|------------------|
| | Before Harvest | At Harvest | Payment Received |
| KCBT PUTS | | \$ ↑ | |
| Futures Price | \$5.00 | \$6.00 | |
| PUT Strike Price | \$5.00 | \$5.00 | |
| PUT Premium <small>/bu</small> | \$0.75 | \$0.00 | |
| Qty. Bought (bu) | 10,000 | | |
| Qty. Sold (bu) | | 10,000 | |
| Gain (Loss) /bu | | (\$0.75) | |
| Total Gain (Loss) | | (\$7,500) | (\$7,500) |
| Harvest Sales | | | |
| Price @ Harvest | | | |
| Bu. Delivered | | | |
| Harvest Sales | | | |
| Total Revenue | | | |

Wheat Put Option Example (Basis \$0.40 under)

| Transaction | Rising Wheat Futures (↑ \$1 /bu) | | |
|---------------------------------------|----------------------------------|------------|------------------|
| | Before Harvest | At Harvest | Payment Received |
| KCBT PUTS | | \$ ↑ | |
| Futures Price | \$5.00 | \$6.00 | |
| PUT Strike Price | \$5.00 | \$5.00 | |
| PUT Premium <small>/bu</small> | \$0.75 | \$0.00 | |
| Qty. Bought (bu) | 10,000 | | |
| Qty. Sold (bu) | | 10,000 | |
| Gain (Loss) /bu | | (\$0.75) | |
| Total Gain (Loss) | | (\$7,500) | (\$7,500) |
| Harvest Sales | | | |
| Price @ Harvest | | \$5.60 | |
| Bu. Delivered | | 10,000 | |
| Harvest Sales | | +\$56,000 | +\$56,000 |
| Total Revenue | | | \$48,500 |

Wheat Put Option Example (Basis \$0.40 under)

| Transaction | Falling Wheat Futures (↓ \$1 /bu) | | | Rising Wheat Futures (↑ \$1 /bu) | | |
|---------------------------------------|-----------------------------------|------------|------------------|----------------------------------|------------|------------------|
| | Before Harvest | At Harvest | Payment Received | Before Harvest | At Harvest | Payment Received |
| KCBT PUTS | | \$ ↓ | | | \$ ↑ | |
| Futures Price | \$5.00 | \$4.00 | | \$5.00 | \$6.00 | |
| PUT Strike Price | \$5.00 | \$5.00 | | \$5.00 | \$5.00 | |
| PUT Premium <small>/bu</small> | \$0.75 | \$1.00 | | \$0.75 | \$0.00 | |
| Qty. Bought (bu) | 10,000 | | | 10,000 | | |
| Qty. Sold (bu) | | 10,000 | | | 10,000 | |
| Gain (Loss) /bu | | +\$0.25 | | | (\$0.75) | |
| Total Gain (Loss) | | +\$2,500 | +\$2,500 | | (\$7,500) | (\$7,500) |
| Harvest Sales | | | | | | |
| Price @ Harvest | | \$3.60 | | | \$5.60 | |
| Bu. Delivered | | 10,000 | | | 10,000 | |
| Harvest Sales | | +\$36,000 | +\$36,000 | | +\$56,000 | +\$56,000 |
| Total Revenue | | | \$38,500 | | | \$48,500 |

Sell Cash + Buying Grain Call Options

Being in Position to Gain from Later Futures \$ Increases

■ Why Buy Call Options?

- “Calls” provide protection from rising grain futures prices
- If grain producer-sellers buy call options after Forward Contracting grain, they are positioning themselves to gain grain futures prices rise later on
- Similar to post-harvest “Minimum Price Contracts”

■ Technical Definition of Call Options

- Calls provide “the right but not the obligation” to take “long” or “buy” positions in futures markets
- Avoiding the margin calls possible from “buying futures”

Mechanics of Forward Contracts + Buying Grain Call Options

■ Strike Price (SP)

- “In-the-Money” Call Strike Price < Futures Price
- “At-the-Money” Call Strike Price = Futures Price
- “Out-of-the-Money” Call Strike Price > Futures Price

■ Call “Premium” ⇒ Cost of Buying Call Option

■ Futures Price Rise Coverage with Call Options

- Gains Above: $SP^{(Call)} + Premium^{(Call)} + Brokers\ Fee$

■ Minimum \$ With Fwd Contract + Buying Calls

- $Forward\ Contract\ \$ - Premium^{(Call)} - Brokers\ Fee$

Wheat FWD Contract + Call Option 1

| | Falling Wheat Futures (↓ \$1 /bu) | | | Rising Wheat Futures (↑ \$1 /bu) | | |
|----------------------|-----------------------------------|------------|------------------|----------------------------------|------------|------------------|
| Transaction | Before Harvest | At Harvest | Payment Received | Before Harvest | At Harvest | Payment Received |
| KCBT PUTS | | \$ ↓ | | | \$ ↑ | |
| Futures Price | \$5.00 | \$4.00 | | \$5.00 | \$6.00 | |
| Call Strike Price | \$5.00 | | | \$5.00 | \$5.00 | |
| Call Premium \$/bu | \$0.65 | | | \$0.65 | \$1.00 | |
| Qty. Bought (bu) | 10,000 | | | 10,000 | | |
| Qty. Sold (bu) | | | | | | |
| Gain (Loss) /bu | | | | | | |
| Total Gain (Loss) | | | | | | |
| Harvest Sales | | | | | | |
| FC\$ @ Harvest | | \$4.60 | | | \$4.60 | |
| Bu. Delivered | | 10,000 | | | 10,000 | |
| Harvest Sales | | +\$46,000 | +\$46,000 | | +\$46,000 | +\$46,000 |
| Total Revenue | | | | | | |

Wheat FWD Contract + Call Option 2

| | Falling Wheat Futures (↓ \$1 /bu) | | |
|----------------------|-----------------------------------|------------|------------------|
| Transaction | Before Harvest | At Harvest | Payment Received |
| KCBT PUTS | | \$ ↓ | |
| Futures Price | \$5.00 | \$4.00 | |
| Call Strike Price | \$5.00 | \$5.00 | |
| Call Premium \$/bu | \$0.65 | \$0.00 | |
| Qty. Bought (bu) | 10,000 | | |
| Qty. Sold (bu) | | 10,000 | |
| Gain (Loss) /bu | | (\$0.65) | |
| Total Gain (Loss) | | (\$6,500) | (\$6,500) |
| Harvest Sales | | | |
| FC\$ @ Harvest | | \$4.60 | |
| Bu. Delivered | | 10,000 | |
| Harvest Sales | | +\$46,000 | +\$46,000 |
| Total Revenue | | | \$39,500 |

Wheat FWD Contract + Call Option ³

| | Rising Wheat Futures (↑ \$1 /bu) | | |
|-------------------------------|----------------------------------|------------|------------------|
| | Before Harvest | At Harvest | Payment Received |
| Transaction | | | |
| KCBT PUTS | | \$ ↑ | |
| Futures Price | \$5.00 | \$6.00 | |
| Call Strike Price | \$5.00 | \$5.00 | |
| Call Premium ^{\$/bu} | \$0.65 | \$1.00 | |
| Qty. Bought (bu) | 10,000 | | |
| Qty. Sold (bu) | | 10,000 | |
| Gain (Loss) /bu | | +\$0.35 | |
| Total Gain (Loss) | | +\$3,500 | +\$3,500 |
| Harvest Sales | | | |
| FC\$ @ Harvest | | \$4.60 | |
| Bu. Delivered | | 10,000 | |
| Harvest Sales | | +\$46,000 | <u>+\$46,000</u> |
| Total Revenue | | | \$49,500 |

Wheat FWD Contract + Call Option ⁴

| | Falling Wheat Futures (↓ \$1 /bu) | | | Rising Wheat Futures (↑ \$1 /bu) | | |
|-------------------------------|-----------------------------------|------------|------------------|----------------------------------|------------|------------------|
| | Before Harvest | At Harvest | Payment Received | Before Harvest | At Harvest | Payment Received |
| Transaction | | | | | | |
| KCBT PUTS | | \$ ↓ | | | \$ ↑ | |
| Futures Price | \$5.00 | \$4.00 | | \$5.00 | \$6.00 | |
| Call Strike Price | \$5.00 | \$5.00 | | \$5.00 | \$5.00 | |
| Call Premium ^{\$/bu} | \$0.65 | \$0.00 | | \$0.65 | \$1.00 | |
| Qty. Bought (bu) | 10,000 | | | 10,000 | | |
| Qty. Sold (bu) | | 10,000 | | | 10,000 | |
| Gain (Loss) /bu | | (\$0.65) | | | +\$0.35 | |
| Total Gain (Loss) | | (\$6,500) | (\$6,500) | | +\$3,500 | +\$3,500 |
| Harvest Sales | | | | | | |
| FC\$ @ Harvest | | \$4.60 | | | \$4.60 | |
| Bu. Delivered | | 10,000 | | | 10,000 | |
| Harvest Sales | | +\$46,000 | <u>+\$46,000</u> | | +\$46,000 | <u>+\$46,000</u> |
| Total Revenue | | | \$39,500 | | | \$49,500 |

Wheat Marketing Strategy Results

Comparing:


- Harvest Cash Sales
- Preharvest Hedges
- Preharvest Forward Contracts
- Preharvest Put Options
- Preharvest Forward Contract + Buy Call Options

Wheat Forward Pricing Results ¹

| Futures Trends | Cash Sale* | Short Hedge* | Forward Contract | Buy Put Option - Price Floor* | Forward Contract + Buy Call |
|---|------------------------|------------------------------|------------------------------|-------------------------------|-----------------------------|
| Falling Futures (\$5.00 ⇒ \$4.00 /bu) | \$3.60 Worst | \$4.60 Best (tied) | \$4.60 Best (tied) | \$3.85 ≈ Middle | \$3.95 ≈ Middle |

*** Subject to basis risk, i.e., Cash basis > or < than \$0.40 under futures

Wheat Forward Pricing Results ²

| Futures Trends | Cash Sale* | Short Hedge* | Forward Contract | Buy Put Option - Price Floor* | Forward Contract + Buy Call |
|---|------------------------------|------------------------------|------------------------------|-------------------------------|--|
| Falling Futures  (\$5.00 ⇒ \$4.00 /bu) | \$3.60 Worst | \$4.60 Best (tied) | \$4.60 Best (tied) | \$3.85 ≈ Middle | \$3.95 ≈ Middle |
| Unchanged Futures (\$5.00 ⇒ \$5.00 /bu) | \$4.60 Best (tied) | \$4.60 Best (tied) | \$4.60 Best (tied) | \$3.85 Worst | \$3.95 2 nd Worst |

*** Subject to basis risk, i.e., Cash basis > or < than \$0.40 under futures

Wheat Forward Pricing Results ³

| Futures Trends | Cash Sale* | Short Hedge* | Forward Contract | Buy Put Option - Price Floor* | Forward Contract + Buy Call |
|---|------------------------------|-------------------------------|-------------------------------|-------------------------------|--|
| Falling Futures  (\$5.00 ⇒ \$4.00 /bu) | \$3.60 Worst | \$4.60 Best (tied) | \$4.60 Best (tied) | \$3.85 ≈ Middle | \$3.95 ≈ Middle |
| Unchanged Futures (\$5.00 ⇒ \$5.00 /bu) | \$4.60 Best (tied) | \$4.60 Best (tied) | \$4.60 Best (tied) | \$3.85 Worst | \$3.95 2 nd Worst |
| Rising Futures  (\$5.00 ⇒ \$6.00 /bu) | \$5.60 Best | \$4.60 Worst (tied) | \$4.60 Worst (tied) | \$4.85 ≈ Middle | \$4.95 ≈ Middle |

*** Subject to basis risk, i.e., Cash basis > or < than \$0.40 under futures

Price Trend Effects

On Cash Sales & Forward Contracts



| Pricing Alternatives | Falling Futures | | Rising Futures | | Wider Basis | Narrower Basis |
|------------------------|-----------------|------|----------------|------|-------------|----------------|
| | (-) | (+) | (-) | (+) | | |
| Cash Market Sales | (-) | (+) | (-) | (+) | (-) | (+) |
| Forward Cash Contract | None | None | None | None | None | None |
| Basis Contract | (-) | (+) | None | None | None | None |
| Hedge-to-Arrive (HTA) | None | None | (-) | (+) | (-) | (+) |
| Minimum Price Contract | None | (+) | None | None | None | None |
| Marketing Loans (FSA) | None | (+) | (-) | (+) | (-) | (+) |

Price Trend Effects

On Futures, Options & Marketing Loans



| Pricing Alternatives | Falling Futures | | Rising Futures | | Wider Basis | Narrower Basis |
|-----------------------|-----------------|------|----------------|------|-------------|----------------|
| | (-) | (+) | (-) | (+) | | |
| Short Futures Hedge | None | None | (-) | (+) | (-) | (+) |
| Buy Put Options | None | (+) | (-) | (+) | (-) | (+) |
| Sell Cash & Buy Calls | None | (+) | None | None | None | None |
| Marketing Loans | None | (+) | (-) | (+) | (-) | (+) |

Risk Exposure of Marketing Tools

A. Options Volatility Risk

- Risk that option premiums will not change 1-for-1 with cash/futures as the price level changes

B. Production Risk if Pre-harvest Pricing

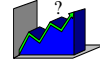
- Risk of being unable to deliver grain to fulfill a contract

C. Counter Party Risk

- Risk that a buyer or broker wont fulfill their contract obligations

D. Control Risk

- Risk of market actions getting “out of control” before corrective actions can be taken by the seller (limit moves, etc.)



Areas of Risk Exposure

For Cash Sales & Forward Contracts



| Pricing Alternatives | Options Volatility | Prodn. Risk if Prehvst. | Counter Party Risk | Control Risk |
|------------------------|--------------------|-------------------------|--------------------|--------------|
| Cash Market Sales | --- | --- | --- | Yes |
| Forward Cash Contract | --- | Yes | Yes | --- |
| Basis Contract | --- | Yes | Yes | Yes |
| Hedge-to-Arrive (HTA) | --- | Yes | Yes | Yes |
| Minimum Price Contract | Yes | Yes | Yes | Yes |
| Price Later Contract | --- | --- | Yes | Yes |

Areas of Risk Exposure

For Futures, Options & Marketing Loans



| Pricing Alternatives | Options Volatility | Prodn. Risk if Prehvst. | Counter Party Risk | Control Risk |
|-----------------------|--------------------|-------------------------|--------------------|--------------|
| Short Futures Hedge | --- | Yes | Yes** | Yes |
| Buy Put Options | Yes | Yes | Yes** | Yes |
| Sell Cash & Buy Calls | Yes | --- | Yes** | Yes |
| Marketing Loans | --- | --- | --- | Yes |

“**”: Risk of equity in Margin accounts being “lost”, i.e., “MF Global situation”

Grain Forward Pricing Decisions

■ How Much to Forward Contract or Hedge?

□ For Pre-Harvest Pricing:

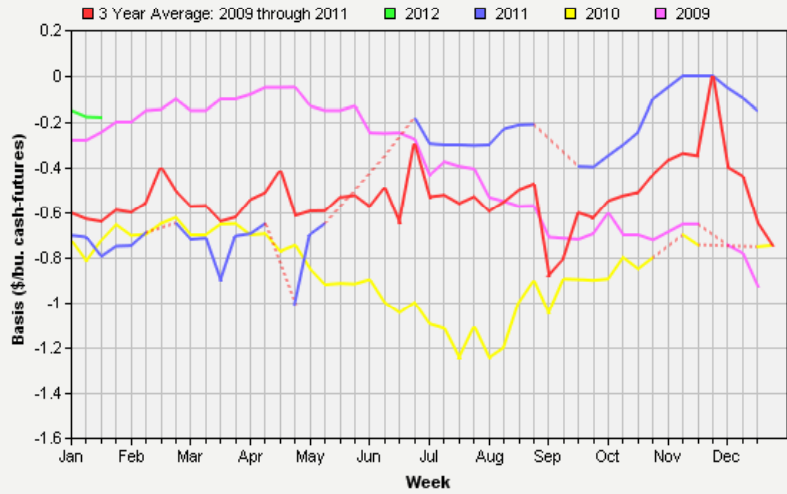
- Max of 50%-75% of expected production (*average yields*)
 - If have a short crop, use Crop Insurance Coverage revenues to help fill Forward Contract obligations
- **Recommended:** A disciplined grain marketing plan

■ What Time Period to Set Grain Delivery In?

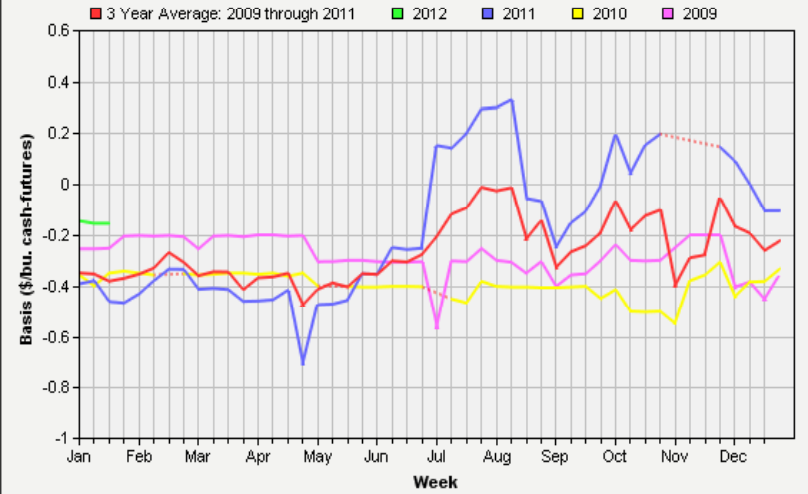
- Examine Harvest vs Post Harvest Basis, Storage Returns, & Grain Delivery Opportunities
- Timing of cash flow needs



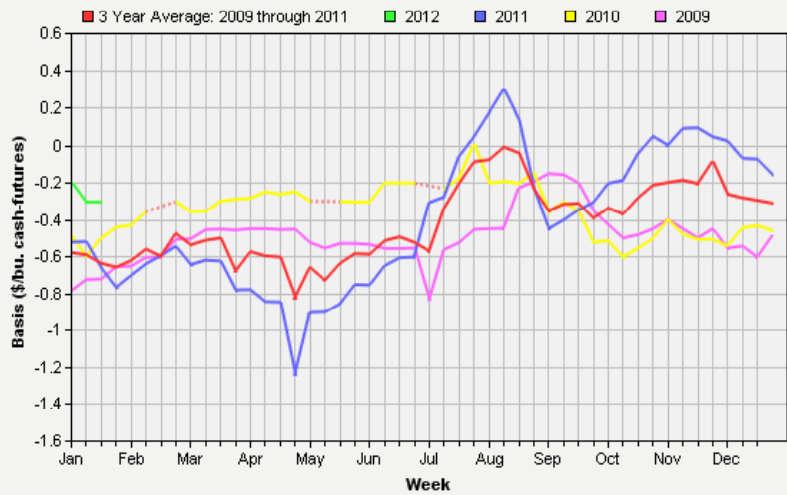
Basis Information: SALINA, KS - Hard Red Winter Wheat
 K-State Dept of Agricultural Economics, www.AgManager.info



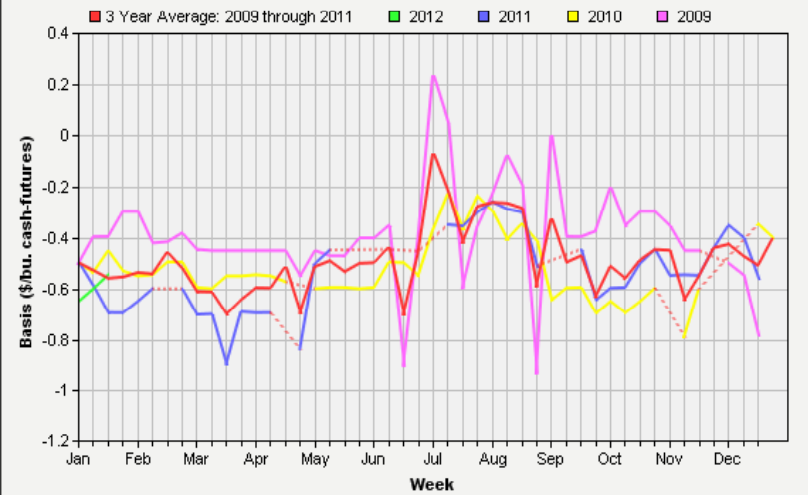
Basis Information: SALINA, KS - Corn
 K-State Dept of Agricultural Economics, www.AgManager.info



Basis Information: SALINA, KS - Grain Sorghum
 K-State Dept of Agricultural Economics, www.AgManager.info



Basis Information: SALINA, KS - Soybeans
 K-State Dept of Agricultural Economics, www.AgManager.info



ADVANCED GRAIN MARKETING TOPICS & SUPPLEMENTAL INFORMATION

Futures Margins

- ☑ **Initial Margin Deposit:**
 - ◆ Required up front, good faith deposit by exchanges
- ☑ **Margin Account**
 - ◆ Losses/gains in futures position reflected here
 - ◆ Minimum required margin account balance
- ☑ **Margin Deposit**
 - ◆ Additional money required when margin account falls below minimum balance due to losses in futures position

Corn Futures Margin Deposit Example

Sell 10,000 bu July CBOT Wheat @ \$5.00/bu on 2/1/2012

Prices Trend Down \$1

2/1: Sell \$5.00 July Wheat

Initial Deposit = \$1,500

Minimum Deposit = \$1,000

7/1: July Wheat @ \$4.00

Loss in Futures (\$10,000)

Account balance (\$8,500)

Margin Call +\$9,500

New Account balance = \$1,000

Prices Trend Up \$1

2/1: Sell \$5.00 July Wheat

Initial Deposit = \$1,500

Minimum Deposit = \$1,000

7/1: July Wheat @ \$6.00

Gain in Futures +\$10,000

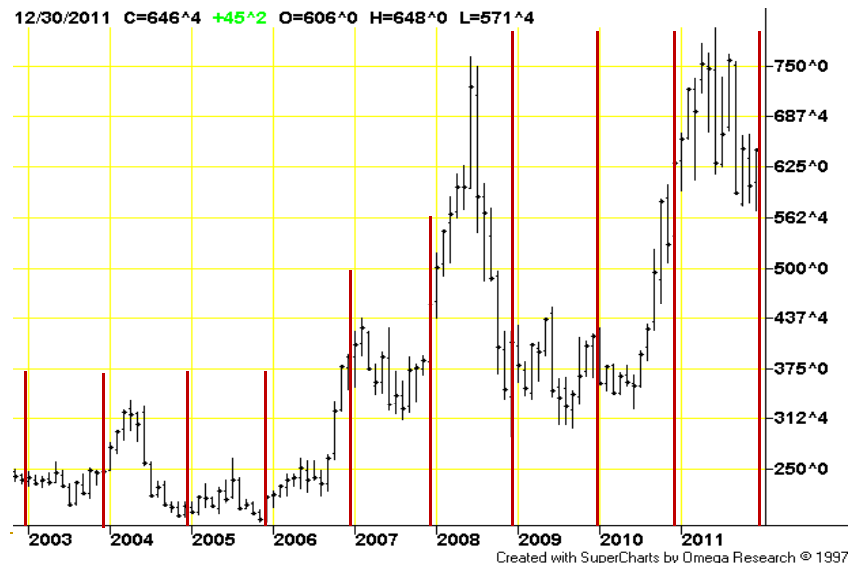
Account balance +\$11,500

Margin Call = \$ 0

New Account balance = \$11,500

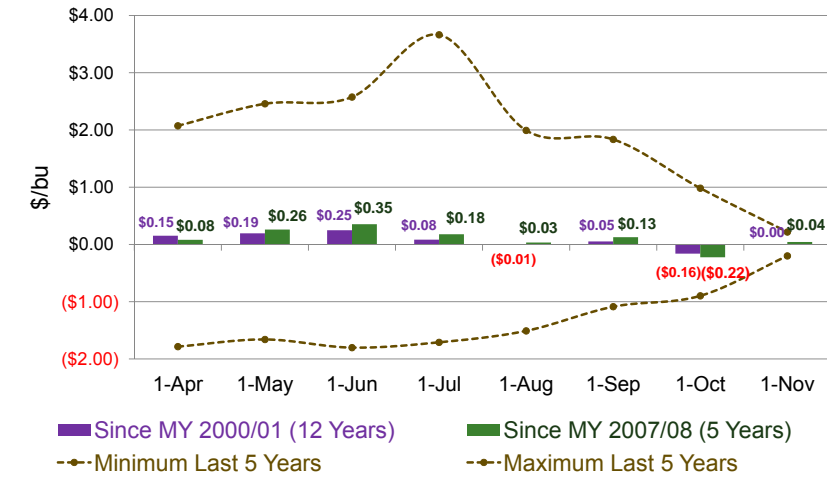


Monthly Corn Continuous Price Chart

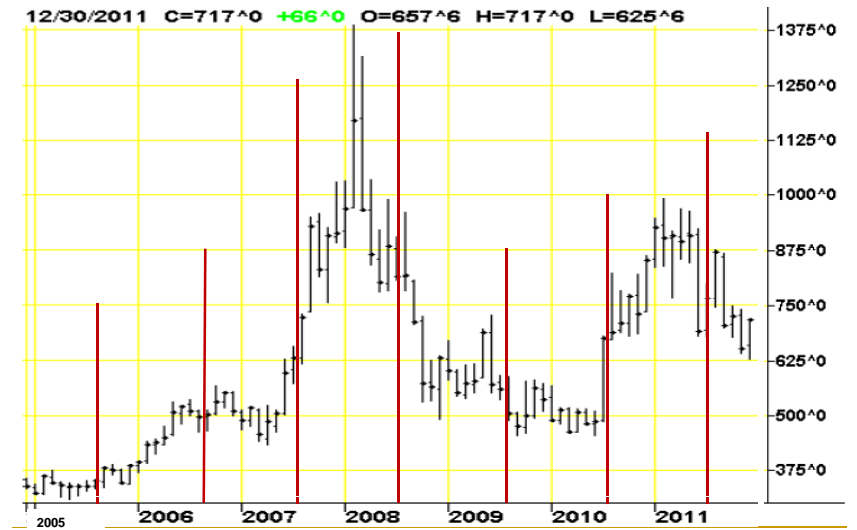


Average Corn Short Hedge Returns

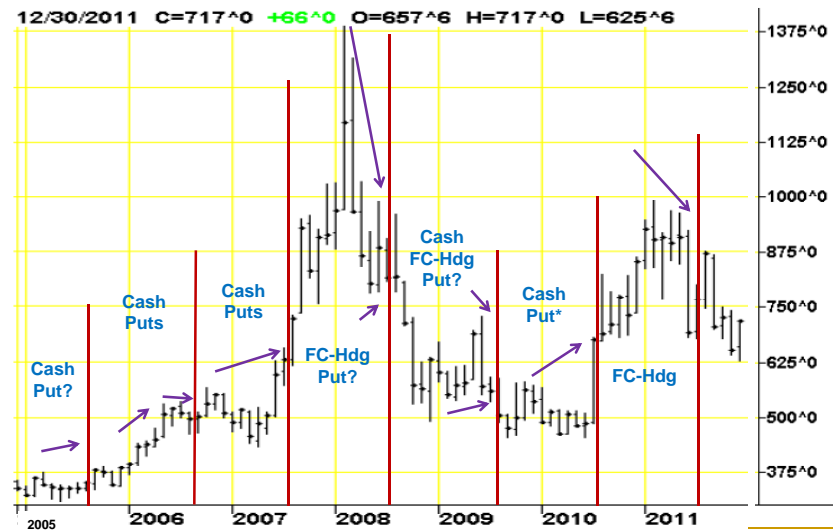
Sell Dec Corn @ start of each month – Close position on Nov. 15th



Monthly KC Wheat Continuous \$ Chart

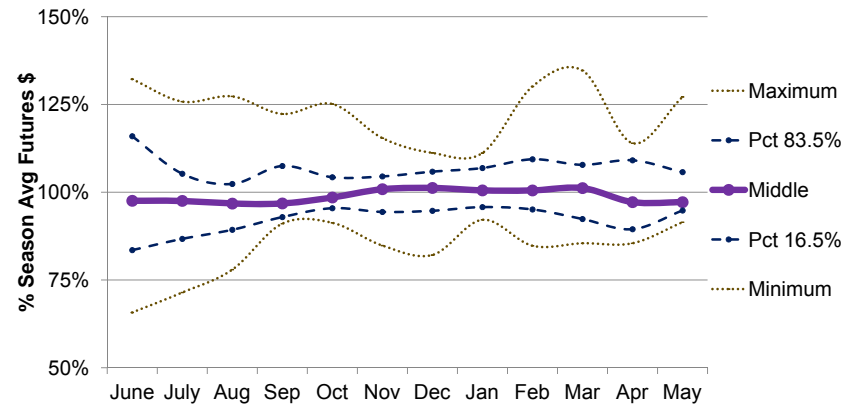


Monthly KC Wheat Continuous \$ Chart



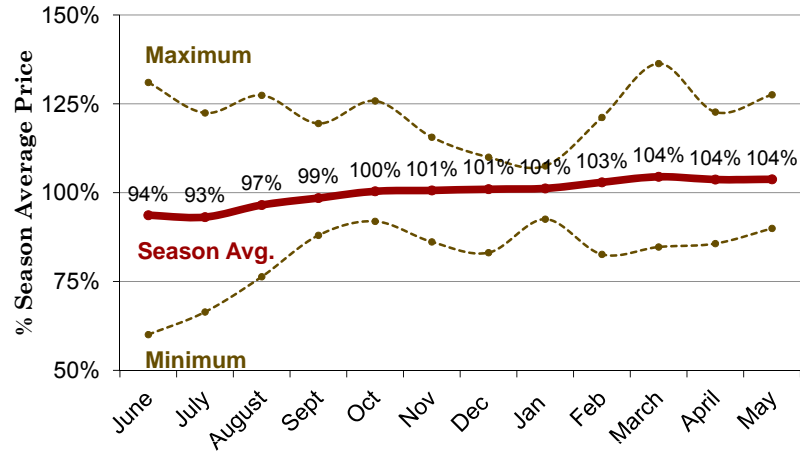
Wheat Futures Seasonal Trends

KCBT Wheat (MY 2000/01 – MY 2009/10)



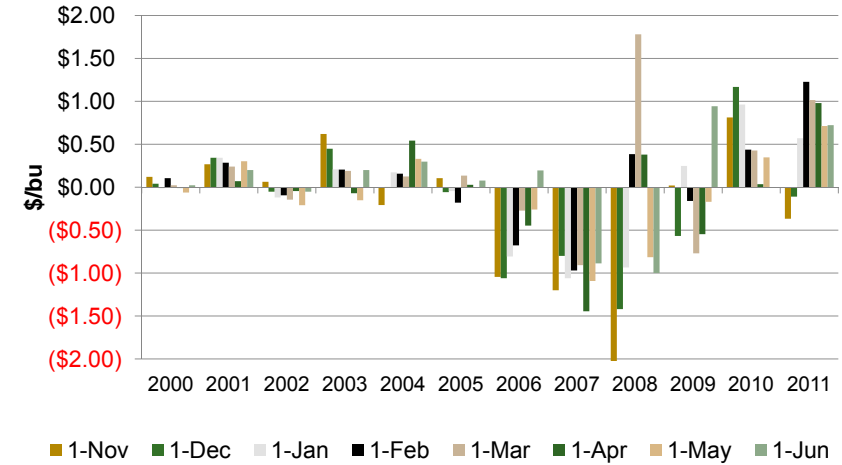
Kansas Cash Wheat Seasonal \$ Index

Marketing Years 2001/02 through 2010/11



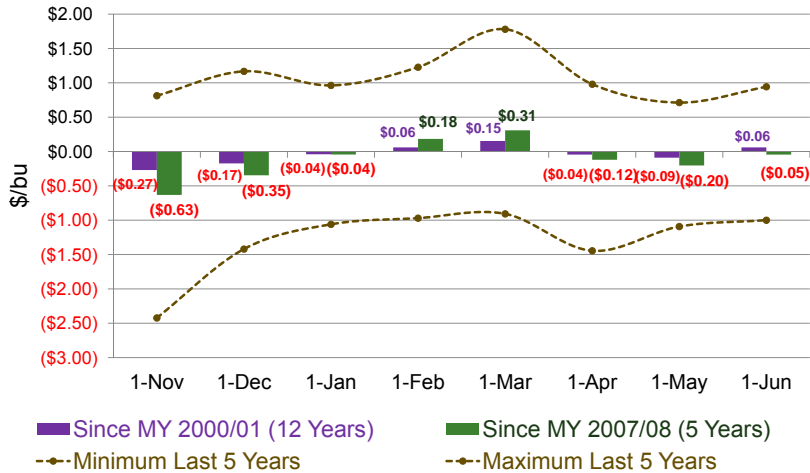
Returns from KC Wheat Short Hedges

Sell July Wheat @ start of each month – Close position on June 15th

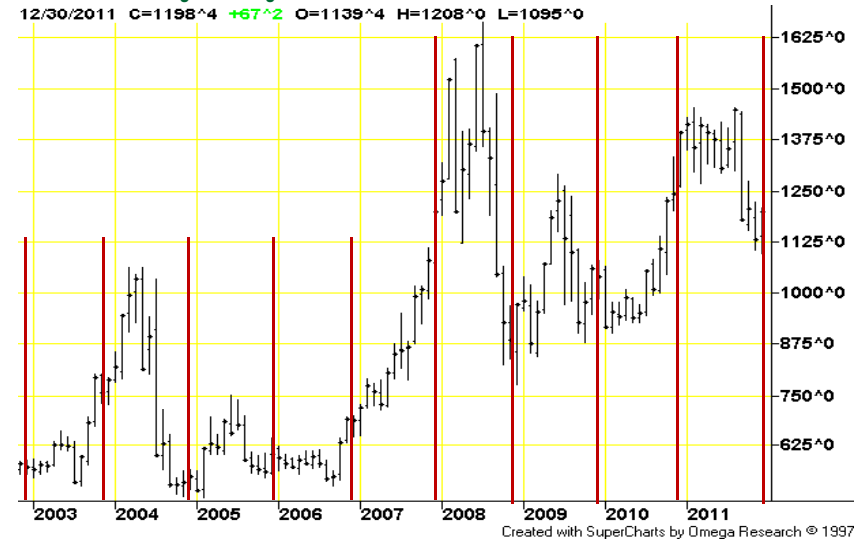


Average KC Wheat Short Hedge Returns

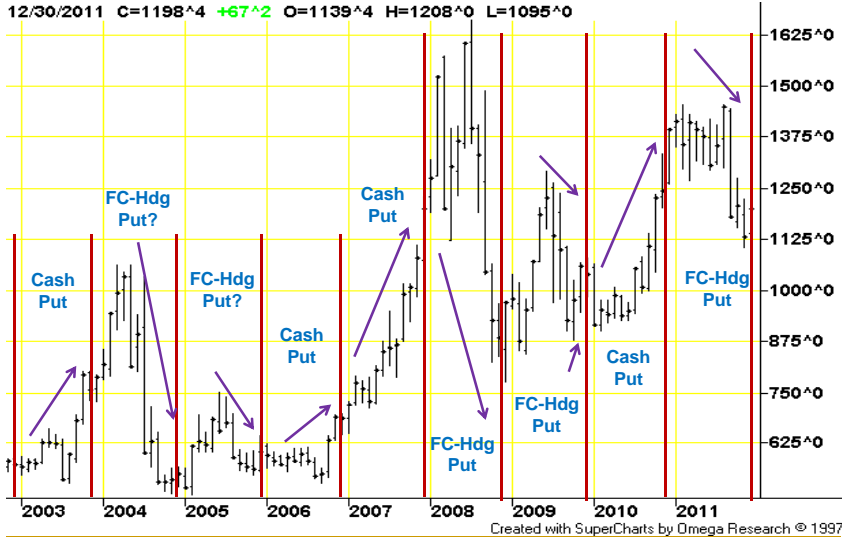
Sell July Wheat @ start of each month – Close position on June 15th



Monthly Soybeans Continuous \$ Chart

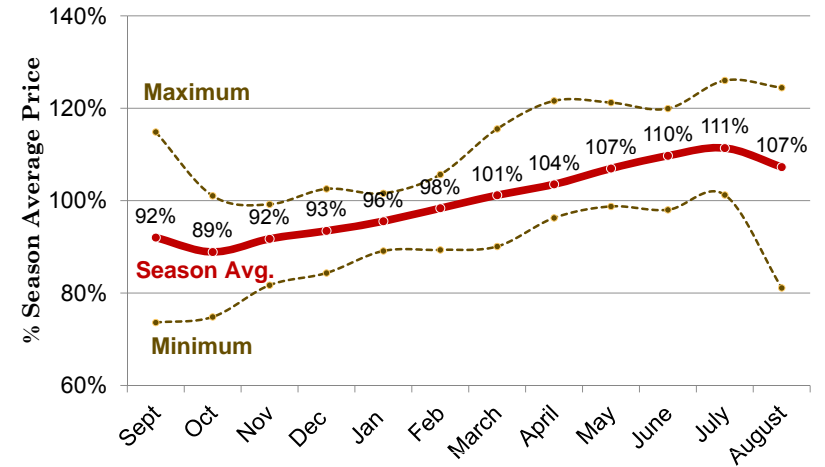


Monthly Soybeans Continuous \$ Chart



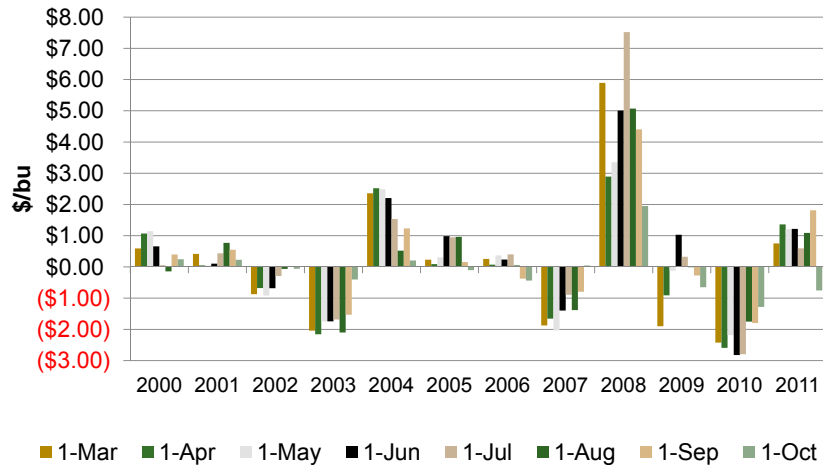
Kansas Soybean Seasonal \$ Index

Marketing Years 2001/02 through 2010/11



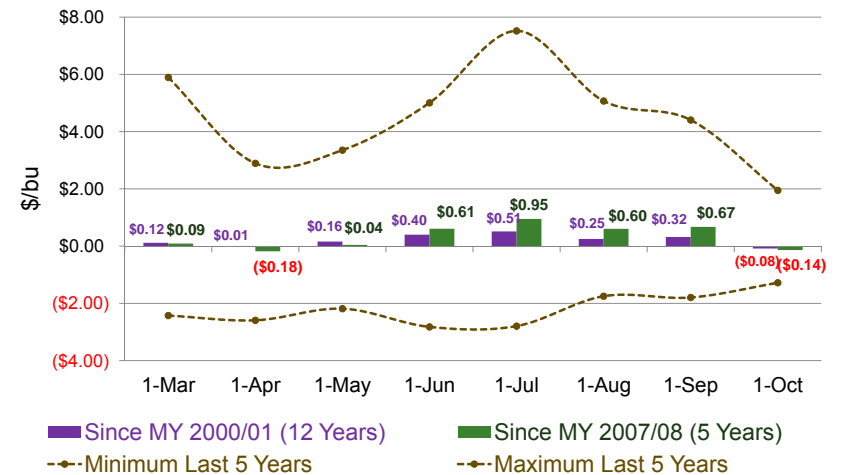
Returns on Soybean Futures Short Hedges

Sell NOV @ start of each month – Close position on October 15th



Average Soybean Short Hedge Returns

Sell NOV @ start of each month – Close position on October 15th



Questions or Comments?

K-State Research and Extension
Extension Agricultural Economics
Website:

www.Agmanager.Info
