



A Strategic Approach to Hedging Your Hog Operation's Input Costs

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Introduction

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Commodity Price Management

Core Strategies



Commodity & Ingredient Hedging, LLC.

Where Do You Have Risk?



Protect Against
Higher Prices



- Un-priced physical
- Contracted to deliver



Protect Against
Lower Prices

- Priced physical
- Inventories
- Un-priced production

Market Sentiment & Related Strategies

When the Market Is...	 Protect Against Higher Prices	 Protect Against Lower Prices
<div style="text-align: center;"> <p>Bearish</p> <p>Negative</p> </div>	<p>Buy Call Spread</p> <p>Buy Call (OTM)*</p> <p>Sell Put</p>	<p>Sell Futures</p> <p>Buy Put & Sell Call</p> <p>Buy Put (ATM or ITM)*</p>
<div style="text-align: center;"> <p>Neutral</p> <p>Friendly</p> <p>Bullish</p> </div>	<p>Buy Call Spread & Sell Put</p> <p>Buy Call (ATM or ITM)*</p> <p>Buy Call & Sell Put</p> <p>Buy Futures</p>	<p>Buy Put Spread & Sell Call</p> <p>Sell Call</p> <p>Buy Put (OTM)*</p> <p>Buy Put Spread</p>

* OTM: Out of the Money

* ITM: In the Money

* ATM: At the Money

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Protect Against **Higher Corn Prices**

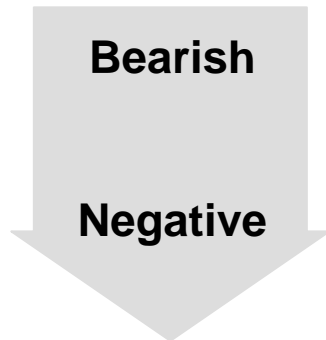
- Long Futures
- Long Call & Short Put
- Long Call
- Long Call Spread & Short Put
- Long Call Spread

Market Sentiment & Related Strategies

When the
Market Is...



Protect Against
Higher Prices



Bearish

Negative

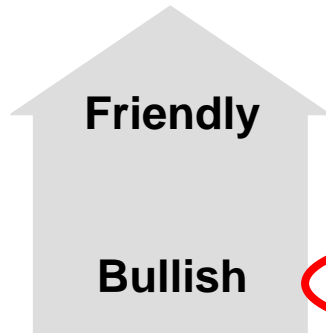
Buy Call Spread

Buy Call (OTM)*

Sell Put

Neutral

Buy Call Spread & Sell Put



Friendly

Bullish

Buy Call (ATM or ITM)*

Buy Call & Sell Put

Buy Futures

* **OTM**: Out of the Money

* **ITM**: In the Money

* **ATM**: At the Money

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Position:

Buy Futures

Margin Requirement:

Yes, variable margin required as market moves lower

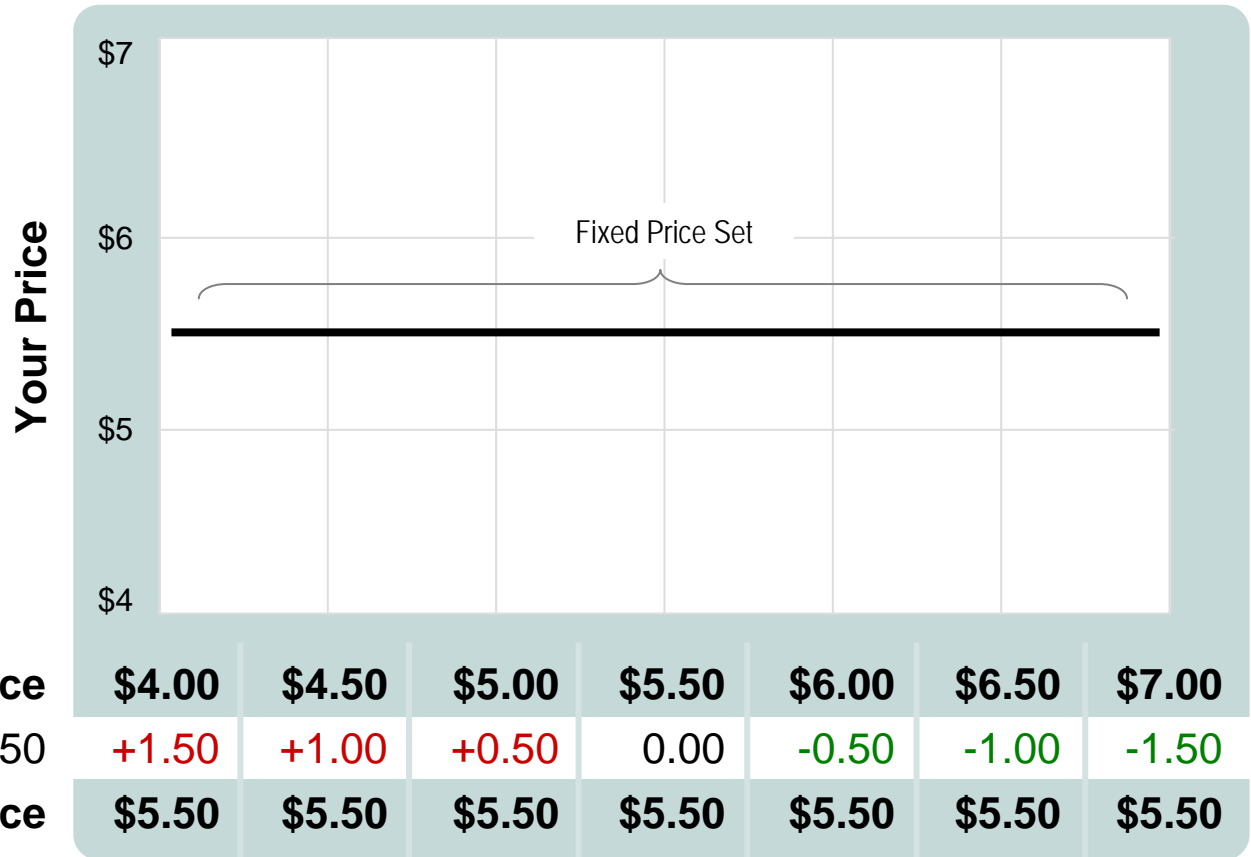
Advantages:

- Futures price risk is eliminated (unlimited protection to higher price levels)
- No premium expense, only transaction costs
- Flexible, offset at any time

Disadvantages:

- Lower futures price does not improve buying price
- Capital expense of potential margin exposure

Long Futures



Long Futures – \$5.50



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Position:

Buy Futures

When to Apply:

- If futures price level fits into budget or operating margin (no flexibility is needed to participate in lower prices)
- If price outlook is bullish
- Lack of liquidity in option market to execute a flexible price strategy

Market Sentiment & Related Strategies

When the
Market Is...



Protect Against
Higher Prices

Bearish

Buy Call Spread

Negative

Buy Call (OTM)*

Sell Put

Neutral

Buy Call Spread & Sell Put

Friendly

Buy Call (ATM or ITM)*

Buy Call & Sell Put

Bullish

Buy Futures

* **OTM**: Out of the Money

* **ITM**: In the Money

* **ATM**: At the Money

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Position: Sell a Put Option, Buy a Call Option
(Bullish Collar)

Margin Requirement: Yes, pay the *difference* in premiums and post variable margin on the put similar to futures in a falling market

Advantages:

- Establishes a Maximum futures price
- Cost of Call is reduced by selling the Put
- Flexible, offset at any time

Disadvantages:

- Limited benefit from lower futures price
- Capital expense of potential margin exposure
- Offsetting before expiration will change the cost & P/L (advantage in higher market, disadvantage in lower market)

Short Put & Long Call (Collar)



Futures Price

\$4.00 \$4.50 \$5.00 \$5.50 \$6.00 \$6.50 \$7.00

Buy 5.50 CALL for \$0.45

+0.45 +0.45 +0.45 +0.45 -0.05 -0.55 -1.05

Sell 4.50 PUT for \$0.10

+0.40 -0.10 -0.10 -0.10 -0.10 -0.10 -0.10

Your Price

\$4.85 \$4.85 \$5.35 \$5.85 \$5.85 \$5.85 \$5.85

Short Put & Long Call (Collar) – Net cost 35 cents



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Position: Sell a Put Option, Buy a Call Option
(Bullish Collar)

- When to Apply:**
- If market outlook is bullish, but flexibility to benefit from partial decline in prices is necessary or desirable
 - If upside risk is undefined or hard to define
 - In a neutral implied volatility environment
 - To adjust a long call or call spread after a decline in price

Market Sentiment & Related Strategies

When the
Market Is...



Protect Against
Higher Prices

Bearish

Buy Call Spread

Negative

Buy Call (OTM)*

Sell Put

Neutral

Buy Call Spread & Sell Put

Friendly

Buy Call (ATM or ITM)*

Buy Call & Sell Put

Bullish

Buy Futures

* **OTM**: Out of the Money

* **ITM**: In the Money

* **ATM**: At the Money

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Position: Buy a Call Option

Margin Requirement: No, pay premium

Advantages:

- Maximum futures price is established
- Lower futures price may improve your buying price
- Flexible, offset at any time, receive remaining value
- Maximum flexibility for adjustments to both higher & lower prices

Disadvantages:

- Premium paid in full at time of purchase. Can be substantial for ATM or ITM call option
- Most expensive option strategy alternative

Long Call



Futures Price

Buy 5.50 CALL for \$0.45

Your Price

\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00
+0.45	+0.45	+0.45	+0.45	-0.05	-0.55	-1.05
\$4.45	\$4.95	\$5.45	\$5.95	\$5.95	\$5.95	\$5.95

Long Call – Cost of 45 cents



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Position: Buy a Call Option

When to Apply:

- If upside risk is undefined or hard to define
- If flexibility to participate in all lower prices is necessary
- If capital constraints require maximum pre-defined margin exposure
- If low implied volatility environment historically and/or seasonally

Market Sentiment & Related Strategies

When the
Market Is...



Protect Against
Higher Prices

Bearish

Buy Call Spread

Negative

Buy Call (OTM)*

Sell Put

Neutral

Buy Call Spread & Sell Put

Friendly

Buy Call (ATM or ITM)*

Buy Call & Sell Put

Bullish

Buy Futures

* **OTM:** Out of the Money

* **ITM:** In the Money

* **ATM:** At the Money

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Position:

Buy a Call Option Spread & Sell a Put Option

Margin Requirement:

Yes, pay the *difference* in premiums and post variable margin on the put similar to futures in a falling market

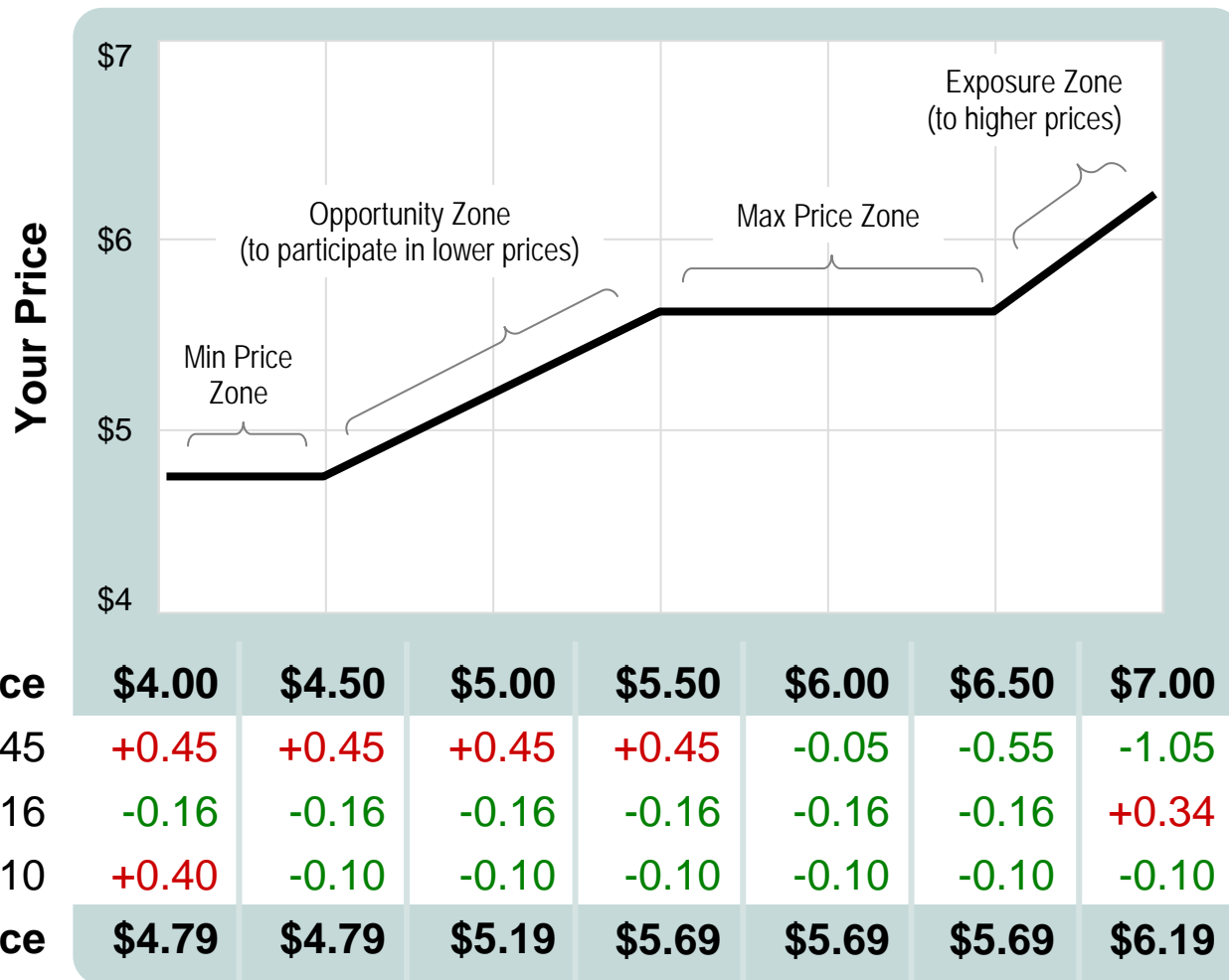
Advantages:

- Establishes a *Range of Protection* from higher prices
- Some benefit to lower prices
- Cost is reduced by selling both call & put
- Flexible, offset at any time
- Least expensive option strategy alternative

Disadvantages:

- Limited benefit from lower futures price (to put's strike price)
- Protection limited to the higher call strike less the net cost
- Offsetting before expiration will change the cost & P/L (disadvantage in both a higher and lower market)

Long Call Spread & Short Put



Long Call Spread & Short Put – Net cost of 19 cents



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Position: Buy a Call Option Spread & Sell a Put Option

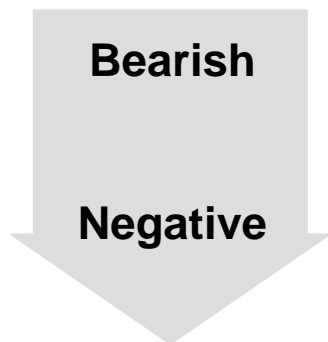
- When to Apply:**
- If market outlook is neutral or perceived risk to higher and lower prices is balanced
 - If minimum cost in strategy selection is a priority
 - If unlimited protection from higher prices is unnecessary AND potential long futures position below the market is acceptable
 - In a high volatility environment historically and/or seasonally

Market Sentiment & Related Strategies

When the
Market Is...



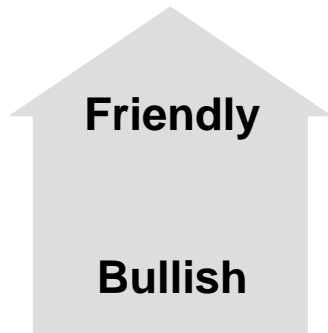
Protect Against
Higher Prices



Bearish

Negative

Neutral



Friendly

Bullish

Buy Call Spread

Buy Call (OTM)*

Sell Put

Buy Call Spread & Sell Put

Buy Call (ATM or ITM)*

Buy Call & Sell Put

Buy Futures

* **OTM**: Out of the Money

* **ITM**: In the Money

* **ATM**: At the Money

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Position: Buy a Call Option, Sell a *Higher* Strike Call Option

Margin Requirement: No, pay the *difference* in premiums

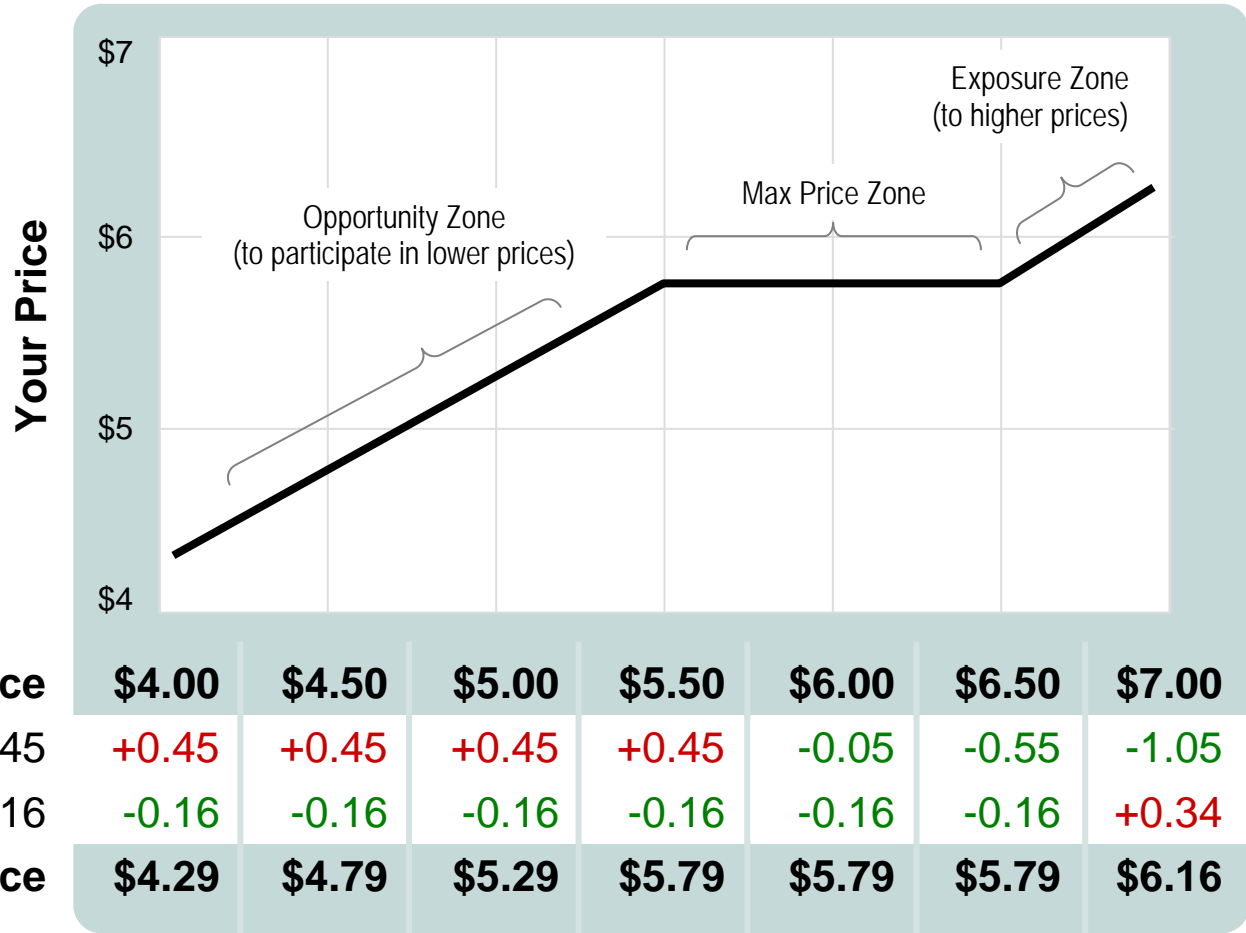
Advantages:

- Establishes a *Range of Protection* from higher prices
- Cost is reduced by selling higher strike call
- Lower futures price may improve your buying price
- Flexible, offset at any time, receive remaining value

Disadvantages:

- Premium paid in full at time of purchase
- Protection limited to the higher call strike less the cost
- Offsetting before expiration will change the cost & P/L (advantage in lower market, disadvantage in higher market)

Long Call Spread



Futures Price

Buy 5.50 CALL for \$0.45

Sell 6.50 CALL for \$0.16

Your Price

Futures Price	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00
Buy 5.50 CALL for \$0.45	+0.45	+0.45	+0.45	+0.45	-0.05	-0.55	-1.05
Sell 6.50 CALL for \$0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	+0.34
Your Price	\$4.29	\$4.79	\$5.29	\$5.79	\$5.79	\$5.79	\$6.16

Long Call Spread – Net cost of 29 cents



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Position:

Buy a Call Option, Sell a *Higher* Strike Call Option

When to Apply:

- If market outlook is bearish
- If unlimited protection to higher prices is not necessary or if upside risk can be better defined or measured
- If flexibility is needed to participate in all lower prices
- If capital constraints require maximum pre-defined margin exposure
- As an adjustment to a long future, long call or long collar position after an increase in price
- If in a neutral implied volatility environment



Protect Against **Higher Meal Prices**

- Long Futures
- Long Call & Short Put
- Long Call
- Long Call Spread & Short Put
- Long Call Spread

Long Futures – \$340.00



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Long Call & Short Put – Net cost of \$19.30



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Long Call– Cost of \$27.40



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Long Call Spread & Short Put – Net cost of \$7.45



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Long Call Spread – Net cost of \$15.55



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- Hedge Policy & Reporting Procedures
- Pricing Decision Guidance Models
- Risk Assessment
- www.hogmargin.com

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Select Front Month: HEK8 Settlements Questions about E-Livestock? Please contact: Anne Carrara (312) 380-4597 Trade Date: Tuesday, April 29, 2008

HEK8

High	75.300A
Low	73.225
Volume	384
Last	73.550B

Outright

Bid Size	Bid Price	Ask Price	Ask Size
2	73.550	73.775	5
3	73.600	74.050	1
2	73.375	74.275	1
5	73.300	74.600	5
10	73.250	74.875	1

HEM8

High	75.750
Low	72.460
Volume	9319
Last	72.850B

Outright

Bid Size	Bid Price	Ask Price	Ask Size
18	72.800	72.875	3
20	72.750	72.900	19
25	72.700	73.000	12
5	72.650	73.050	3
9	72.600	73.075	3

HEN8

High	77.000A
Low	74.550
Volume	2389
Last	75.250B

Outright

Bid Size	Bid Price	Ask Price	Ask Size
1	75.250	75.625	3
4	75.200	75.550	2
10	75.150	75.875	3

Spreads

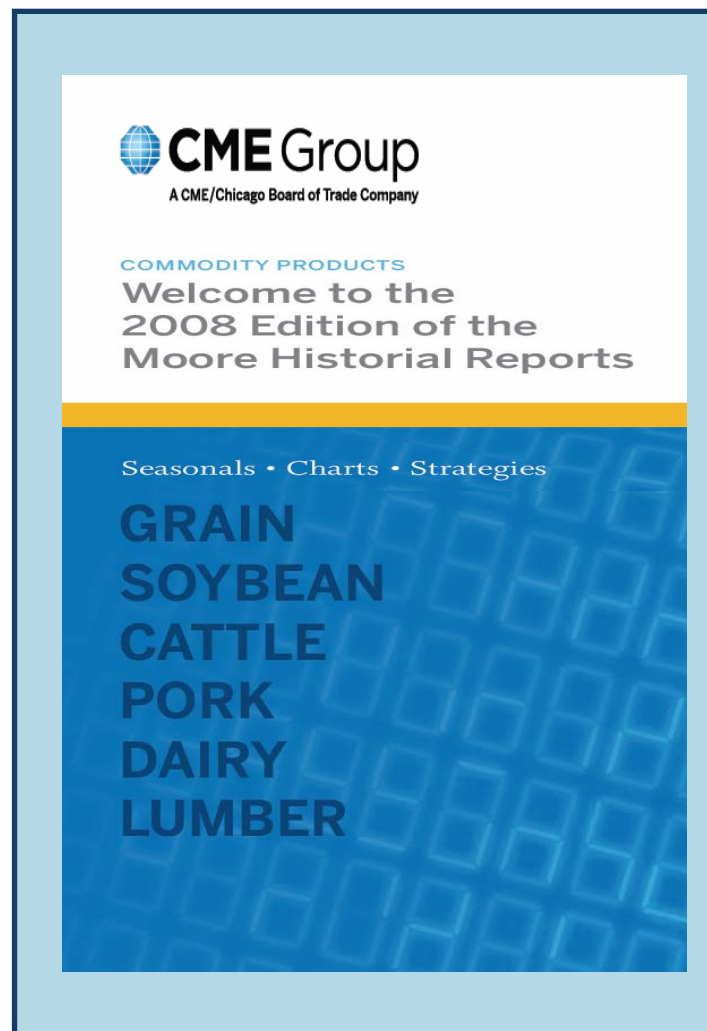
Contracts	Bid Size	Bid Price	Ask Price	Ask Size	High	Low	Volume	Last
HEK8-HEM8	3	0.700	0.975	5	1.100	0.475	113	0.700
HEK8-HEN8	2	-2.325	-1.475	1	-1.250	-1.600	100	-1.500
HEK8-HEQ8	2	-3.000	-2.325	1	-	-	-	-2.175S
HEK8-HEV8	2	1.850	2.625	1	-	-	-	3.300S
HEK8-HEZ8	2	-0.500	0.375	1	-	-	-	1.225S
HEK8-HE99	2	-5.550	-4.600	5	-	-	-	-3.950S
HEK8-HEM8-HEN8	-	-	-	-	-	-	-	2.025S
HEM8-HEN8	5	-2.650	-2.400	4	-1.475	-2.750	1175	-2.400
HEM8-HEQ8	5	-3.500	-3.350	26	-2.525	-3.750	751	-3.400
HEM8-HEV8	5	1.100	1.725	1	1.775	1.125	3	1.125
HEM8-HEZ8	5	-1.000	-0.525	1	0.300	-1.025	95	-1.000
HEM8-HE99	5	-6.300	-5.500	3	-	-	-	-4.250S
HEM8-HEN8-HEQ8	-	-	-0.550	50	-1.325A	-1.325A	-	-1.325A
HEN8-HEQ8	19	-1.000	-0.725	15	-0.850	-1.350	177	-1.000
HEN8-HEV8	1	3.550	4.225	6	4.350A	3.725	56	3.850
HEN8-HEZ8	1	1.200	2.475	1	2.200	2.200	2	2.200

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Contact: thomas.clark@cmegroup.com

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Thomas.clark@cmegroup.com

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