

# Hedging Examples Using Futures

Marketing Basics Class

November 26, 2003

# **Hedge:**

**Taking a position in the futures market that is equal and opposite to the position a person expects to take in the cash market. It is essentially a temporary substitute for a transaction that will occur in the cash market at a later date.**

**As long as the cash price and futures price move at the same rate, any loss in one market will be offset by a gain in the other.**

*On June 20, 2003 a Sauk County cash grain farmer decided to hedge 5,000 bushels of corn that he intends to deliver in October to Rock Springs.*

**June 20** – Sold 1 contract of Dec, 2003 corn for \$2.40/bu.

(He knows that the “basis” at harvest is typically  $-\$0.25$  at Rock Springs so he expects to get  $\$2.15$ /bushel cash)

**October 15** – Bought 1 contract of Dec. 2003 for  $\$2.16$ /bu.

Sold 5,000 bushels at Rock Springs for  $\$1.91$ /bu.

**Result** – Made  $\$0.24$  on the futures transaction

Lost  $\$0.24$  in the cash market

Net price was  $\$2.15$ /bushel

*On August 19, a Sauk County dairy producer started getting nervous about rapidly rising soybean meal prices and decided to hedge his winter protein needs.*

**August 19** – Bought 1 Dec. 2003 soybean meal contract (100 tons) for \$178.10/ton

(He knows that the local basis for soybean meal is typically +\$5/ton so he expects to pay \$183.10 cash)

**November 3** – Sold 1 Dec. soybean meal contract for \$255.50/ton

Bought 100 tons of soybean meal for \$260.50/ton, cash price

**Result -** Made \$77.40/ton on the futures contract

Lost \$77.40/ton in the cash market

Net price was \$183.10/ton

*On August 19, a Sauk County soybean grower thinks that the soybean price can't go much higher so he decides to hedge some of crop for fall delivery.*

**August 19** – Sold 1 Nov bean contract for \$5.40/bushel

(He knows that the local basis at harvest is  $-\$0.40$  so expects to receive \$5.00 cash)

**November 6** – Bought 1 November bean contract for \$7.57

Sold cash beans for \$7.17.

**Result-**            Lost \$2.17/bu on the futures contract

                      Made \$2.17 in the cash market

                      Net was \$5.00/bushel

*On August 22, a Sauk County beef producer decides to hedge a load of cattle that he intends to sell in November.*

**August 22-** Sells 1 Dec live cattle contract for \$80.17/cwt.

(He knows the local basis for cattle in November is typically - \$3/cwt so expects to receive \$77.17/cwt)

**November 24** – Buys 1 Dec live cattle contract for \$96.27/cwt

Sells a load of cattle for \$93.27/cwt cash

**Result -** Lost \$16.10/cwt on the futures contract

Made \$16.10/cwt in the cash market

Net price was \$77.17/cwt

*On August 1, a Sauk County dairy producer decides to hedge some of his November milk production.*

**August 1** – Sells 1 Nov BFP contract (200,000 lbs) for \$12.94/cwt

(He knows that his plant's basis +\$.25/cwt so expects to receive \$13.19)

**November 14** – Buys 1 Nov BFP contract for \$13.40/cwt

His November base milk price ends up being \$13.65/cwt.

**Result -** Lost \$.46/cwt on the futures contract

Made \$.46/cwt on the cash price

Net was \$13.19/cwt.

## **Your turn!**

*On July 1 a Sauk County corn grower wants to hedge 5,000 bushels for delivery in late October. The Dec corn futures price on July 1 is \$2.25. The local basis in October is typically -\$0.25.*

**What price would he expect to receive at delivery?**

*He delivers the corn on October 21, the Dec futures price that day is \$2.15, and basis is the same as expected.*

**What are the results of the hedge?**

## **Your turn!**

*On July 1 a Sauk County corn grower wants to hedge 5,000 bushels for delivery in late October. The Dec corn futures price on July 1 is \$2.25. The local basis in October is typically -\$.25.*

**What price would he expect to receive at delivery?**

$\$2.25$  (futures) minus  $\$.25$  (basis) =  $\$2.00$ /bushel

*He delivers the corn on October 21, the Dec futures price that day is \$2.15, and basis is the same as expected.*

**What happened Oct. 21 and what are the results of the hedge?**

Bought 1 Dec corn contract, made  $\$.10$ /bu

Sold cash corn for  $\$1.90$ /bu, lost  $\$.10$ /bu

Net price was  $\$2.00$ /bu.

## **A twist on the scenario!**

*On July 1 a Sauk County corn grower wants to hedge 5,000 bushels for delivery in late October. The Dec corn futures price on July 1 is \$2.25. The local basis in October is typically -\$0.25.*

**What price would he expect to receive at delivery?**

$\$2.25$  (futures) minus  $\$0.25$  (basis) =  $\$2.00$ /bushel

*He delivers the corn on October 21, the Dec futures price that day is \$2.15, but the basis **WIDENED** to -\$0.35/bushel.*

**What happened Oct. 21 and what are the results of the hedge?**

## A twist on the scenario!

*On July 1 a Sauk County corn grower wants to hedge 5,000 bushels for delivery in late October. The Dec corn futures price on July 1 is \$2.25. The local basis in October is typically  $-\$.25$ .*

**What price would he expect to receive at delivery?**

$\$.25$  (futures) minus  $\$.25$  (basis) =  $\$.00$ /bushel

*He delivers the corn on October 21, the Dec futures price that day is  $\$.15$ , but the basis **WIDENED** to  $-\$.35$ /bushel.*

**What happened Oct. 21 and what are the results of the hedge?**

Bought 1 Dec corn contract, made  $\$.10$ /bu

Sold cash corn for  $\$.80$ /bu, lost  $\$.20$ /bu

Net price was  $\$.90$ /bu.