

Hog Feed Price Protection

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Some Potential Strategies

- Buy in bulk and store
- Buy small and often
- Use crop futures
- Use crop options
- Use combination of crop options

Which is Right for You?

- Depends on your price outlook and risk tolerance
- Just like with your hog marketing, you'll need to do your homework
 - Know your break-even price and how it changes with feed costs
 - Learn about local feed pricing patterns
 - Historical basis patterns over space and time
 - Track the feed markets

Working Through the Strategies

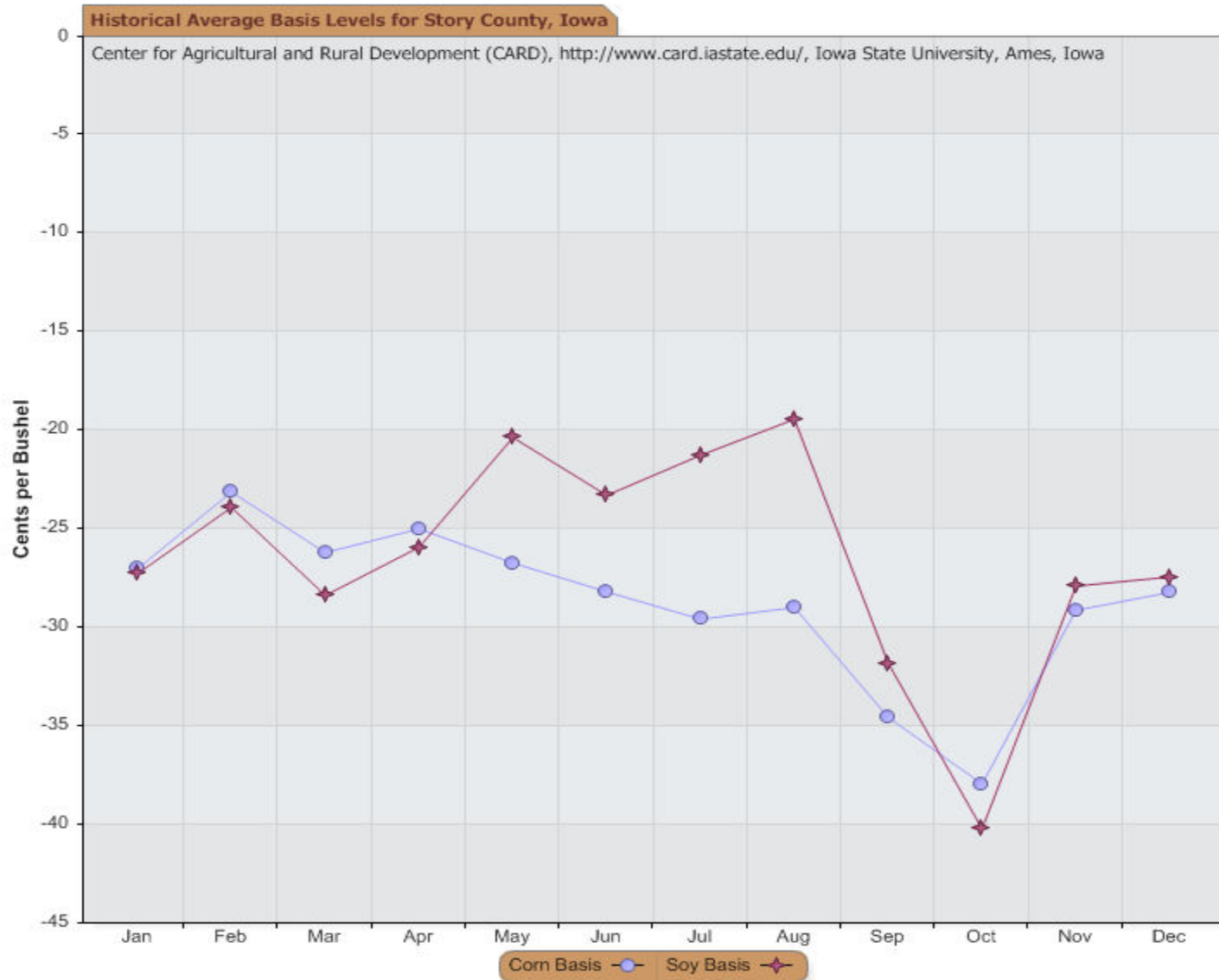
- Buy in bulk and store
 - Expecting higher feed prices in the future
 - Have plenty of storage space (cost of storage less than cost of waiting)
 - Locks feed costs at one time

- Buy small and often
 - Expecting lower feed prices in the future
 - Averages out price fluctuations
 - Locks in feed costs a little at a time

Crop Futures and Options

- Break your local price into two components
 - Futures price
 - Basis
- You face risk on both components
- Use of futures and options manages risk in the 1st component, but not the 2nd

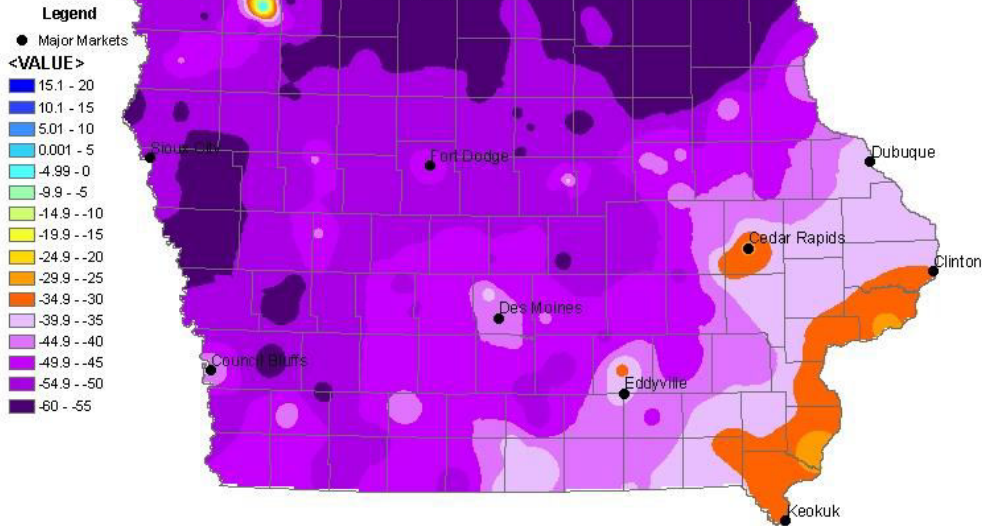
Historical Basis Pattern



Shifting Basis

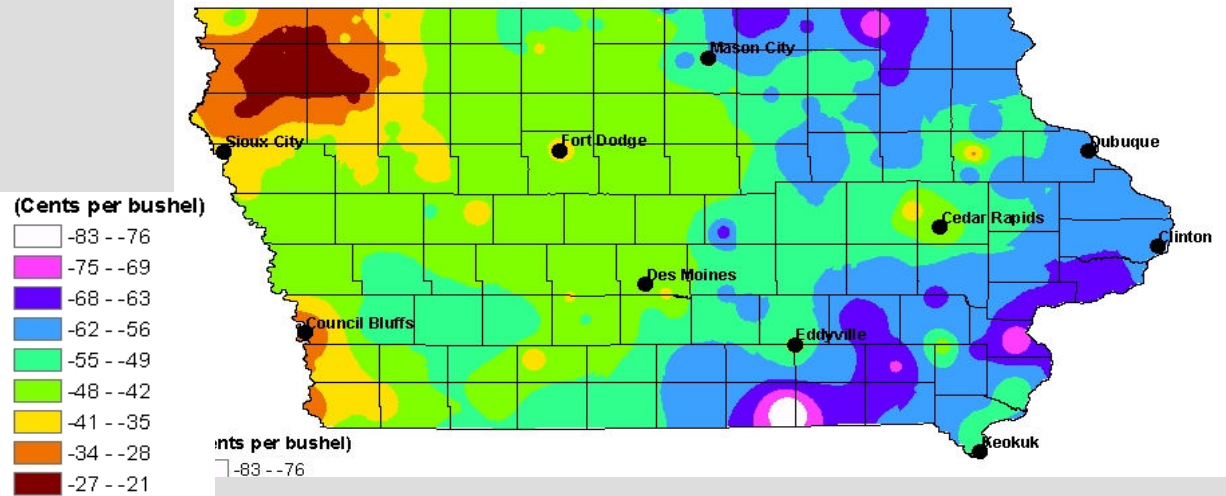
JUN 5, 2006 CORN BASIS

Basis Calculated from CBOT JUL futures Prices 253 cents per bushel



June 5, 2008 Corn Basis

Basis calculated from CBOT July 2008 futures price of \$6.4325 per bushel



Using Crop Futures Hedge

- Buy corn futures in advance of feed purchase
- Sell corn futures when feed is purchased
- Advantages
 - Protects against higher feed prices
 - If basis weakens, effective feed price falls
- Disadvantages
 - Limits gains from lower feed prices
 - If basis strengthens, effective feed price rises
 - Transaction costs

Futures Hedge Example

		Per Bushel
Set-up	Buy Sept. 2008 Corn Futures	\$7.40
	Expected Basis for Sept.	<u>-\$0.35</u>
	Expected Local Corn Price	\$7.05
Rising Prices	Sell Futures	\$8.00
	Basis	<u>-\$0.35</u>
	Local Corn Price	\$7.65
	Less Futures Balance	<u>-\$0.60</u>
	Effective Feed Price	\$7.05
Falling Prices	Sell Futures	\$6.00
	Basis	<u>-\$0.35</u>
	Local Corn Price	\$5.65
	Less Futures Balance	<u>\$1.40</u>
	Effective Feed Price	\$7.05

Using Crop Options

- Buy corn call options in advance of feed purchase
- Call option gives you the right to buy futures at a specific price
- Advantages
 - Protects against higher feed prices
 - Allows benefits from lower feed prices
 - If basis weakens, effective feed price falls
- Disadvantages
 - If basis strengthens, effective feed price rises
 - Option premium paid up front
 - Transaction costs

Call Option Example

Sept. 2008 Corn Futures @ \$7.40 per bushel, At-the-money Call Premium \$0.59
 Expected Basis for Sept. -\$0.35

		Per Bushel
Set-up	Buy Sept. 2008 Corn Call Option	\$7.99 (Futures + Call Premium)
	Expected Basis for Sept.	<u>-\$0.35</u>
	Expected Max. Corn Price	\$7.64
Rising Prices	Futures	\$8.00 (Call worth \$0.60)
	Basis	<u>-\$0.35</u>
	Local Corn Price	\$7.65
	Less Option Balance	<u>-\$0.01</u> -(\$0.60 - \$0.59)
	Effective Feed Price	\$7.64
Falling Prices	Futures	\$6.00 (Call worth \$0.00)
	Basis	<u>-\$0.35</u>
	Local Corn Price	\$5.65
	Less Option Balance	<u>\$0.59</u> -(\$0.00 - \$0.59)
	Effective Feed Price	\$6.24

Using Combination of Options

- Buy corn call options and sell corn put options in advance of feed purchase
- Call option gives you the right to buy futures at a specific price
- Put option gives the buyer the right to sell futures at specific price (which you are agreeing to buy)
- Advantages
 - Protects against higher feed prices
 - If basis weakens, effective feed price falls
 - Establishes feed price range
- Disadvantages
 - Limits gains from lower feed prices outside of range
 - If basis strengthens, effective feed price rises
 - Option premium, transaction costs, margin account

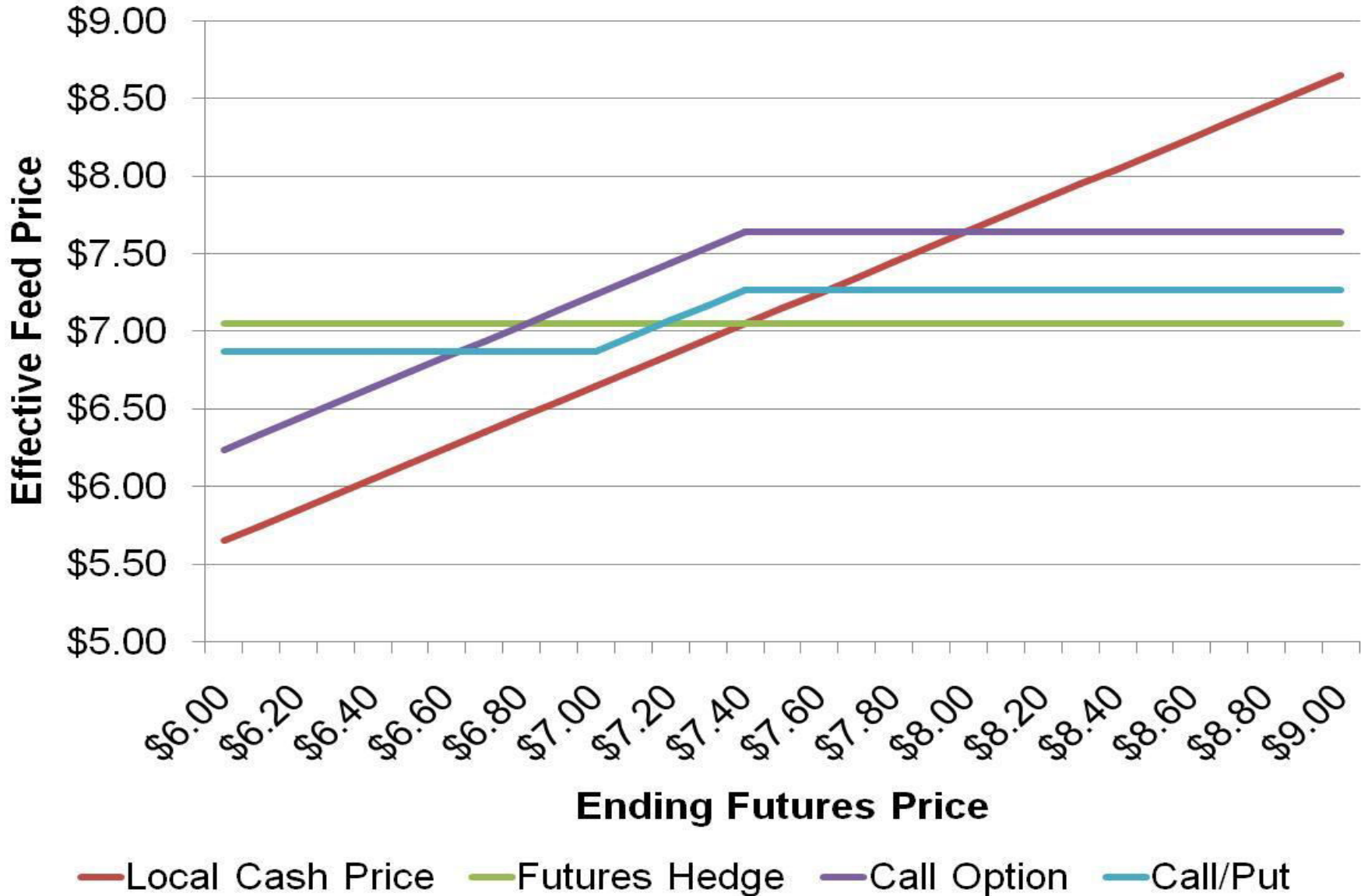
Call/Put Option Example

- Sept. 2008 Corn Futures: \$7.40
- At-the-money Call Premium: \$0.59
- Out-of-the-money (\$7.00) Put Premium: \$0.37
- Expected Basis for Sept.: -\$0.35
- Expected Feed Price Range:
 - Max.: $\$7.40 + \$0.59 - \$0.37 - \$0.35 = \$7.27$
 - Min.: $\$7.00 + \$0.59 - \$0.37 - \$0.35 = \$6.87$

Call/Put Option Example

		Per Bushel
Rising Prices	Futures	\$8.00 (Call worth \$0.60, Put \$0.00)
	Basis	<u>-\$0.35</u>
	Local Corn Price	\$7.65
	Less Call Option Balance	-\$0.01 -(\$0.60 - \$0.59)
	Less Put Option Balance	<u>-\$0.37</u> -(\$0.37 - \$0.00)
	Effective Feed Price	\$7.27
Falling Prices	Futures	\$6.00 (Call worth \$0.00, Put \$1.00)
	Basis	<u>-\$0.35</u>
	Local Corn Price	\$5.65
	Less Call Option Balance	\$0.59 -(\$0.00 - \$0.59)
	Less Put Option Balance	<u>\$0.63</u> -(\$0.37 - \$1.00)
	Effective Feed Price	\$6.87

Example Graph



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Thanks for your time!