

Price-Risk Management in Grain Marketing

for North Carolina, South Carolina, and Georgia



Nicholas E. Piggott
North Carolina State University

George A. Shumaker,
University of Georgia

Charles E. Curtis Jr.
Clemson University

January 2005

NC STATE UNIVERSITY

The Southern Risk Management Center supported this project.

Farmers Face Price Risk.
**But they have several tools to
help manage that risk:**

- **Cash forward contracts**
- **Futures market contracts**
- **Option market contracts – puts & calls**
- **Crop insurance – yield, price, revenue**
- **2002 Farm Bill provisions**
- **Many combinations of the above**

What Is *Downside Price Risk*?

***Price risk* is the *possibility* that the price of your grain will decline while you own it.**

What Is *Price-Risk Management*?

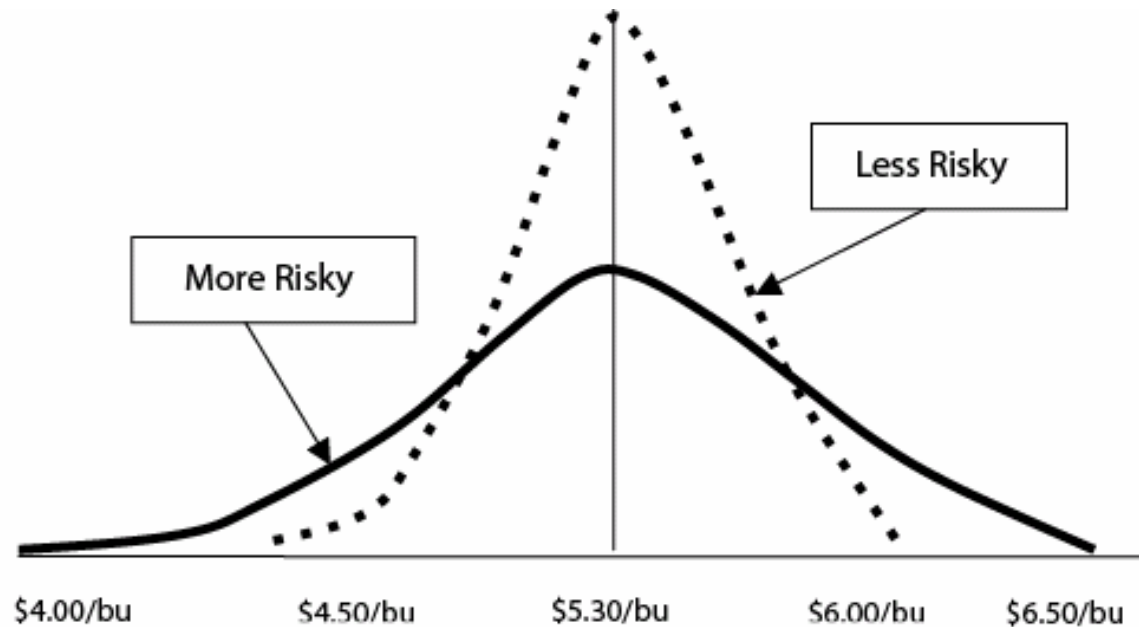
Taking action to minimize the impact of price declines on your farm business.

Examples :

- Fixing the price**
- Setting a price floor**
- Using a Farm Bill program**

Visualizing Price Risk

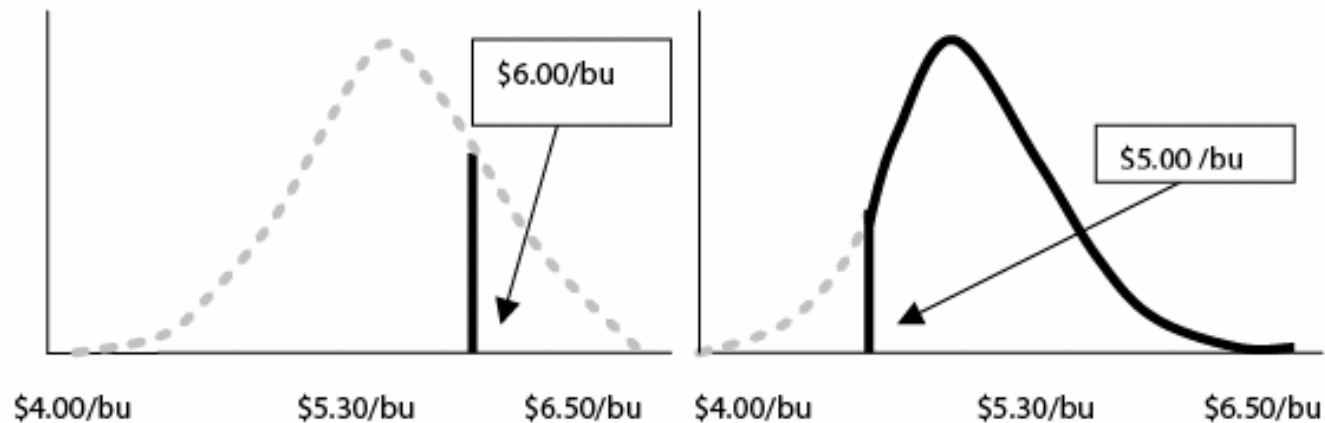
Probability Density Function for Cash Soybean Price at Harvest



Transforming the PDF by Managing Price Risk

Fixing the Price

Setting a Price Floor



What Is *Basis*?

***Basis* is the *difference* between local *cash prices* and *futures market prices* for similar commodities at any point in time.**

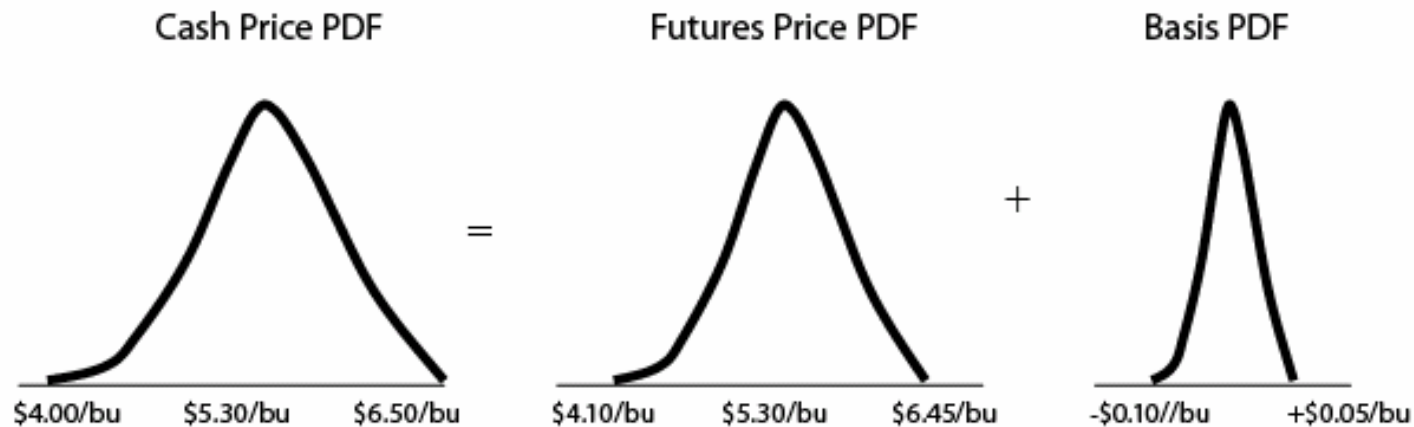
BASIS = LOCAL CASH PRICE – FUTURES PRICE

AND, IT FOLLOWS THAT:

LOCAL CASH PRICE = FUTURES PRICE + BASIS

Visualizing Cash Price, Futures Price, and Basis

$$\text{LOCAL CASH PRICE} = \text{FUTURES PRICE} + \text{BASIS}$$



What Affects Basis?

- **Local supply and demand**
- **Available storage capacity**
- **Available processing**
- **Volume of imports**
- **Cost of transportation**

Impacts on Basis in North Carolina, South Carolina, and Georgia

- **Significant reduction in grain and soybean supply**
- **Changes in demand**
- **Reliance upon imports into the region**

Changes in Grain Acreage

in North Carolina, South Carolina, and Georgia

(% increase or decrease)

		1990 - 1997	1997 - 2002	1990 - 2002
Wheat	N.C.	+21.7	-11.0	+8.3
	S.C.	-22.5	-32.3	-47.5
	Ga.	-38.5	-12.5	-46.2
	Total	-12.7	-16.0	-26.7
Corn	N.C.	-20.0	-17.7	-34.2
	S.C.	-10.3	-8.6	-17.9
	Ga.	-24.2	-32.0	-48.5
	Total	-19.6	-19.9	-35.6
Soybeans	N.C.	0.0	-2.9	-2.9
	S.C.	-27.5	-25.0	-45.6
	Ga.	-55.6	-60.0	-82.2
	Total	-23.2	-17.9	-36.9
Grain Total		-19.6	-18.0	-34.1

Changes in *GCAUs* in North Carolina, South Carolina, and Georgia

	1990	1997	2002
	Thousand GCAUs		
Beef	139	160	143
Broilers	2,957	4,059	4,437
Layers	1,086	1,145	800
Turkeys	1,015	1,006	859
Dairy	362	296	250
Hogs	985	2,382	2,341
Total	6,545	9,048	8,831

A GCAU is a *grain consuming animal unit*, a factor that allows comparisons of grain demand among different types of livestock.

Changes in *GCAUs* in North Carolina

	1990	1997	2002
	Thousand GCAUs		
Beef	41	59	52
Broilers	1,081	1,330	1,470
Layers	418	373	240
Turkeys	899	829	705
Dairy	149	117	101
Hogs	640	2,194	2,194
Total	3,228	4,902	4,761

Changes in *GCAUs* *in Georgia*

	1990	1997	2002
	Thousand GCAUs		
Beef	68	74	68
Broilers	1,709	2,364	2,581
Layers	514	649	444
Turkeys	31	3	0
Dairy	158	141	120
Hogs	251	119	79
Total	2,732	3,350	3,292

Changes in *GCAUs* in South Carolina

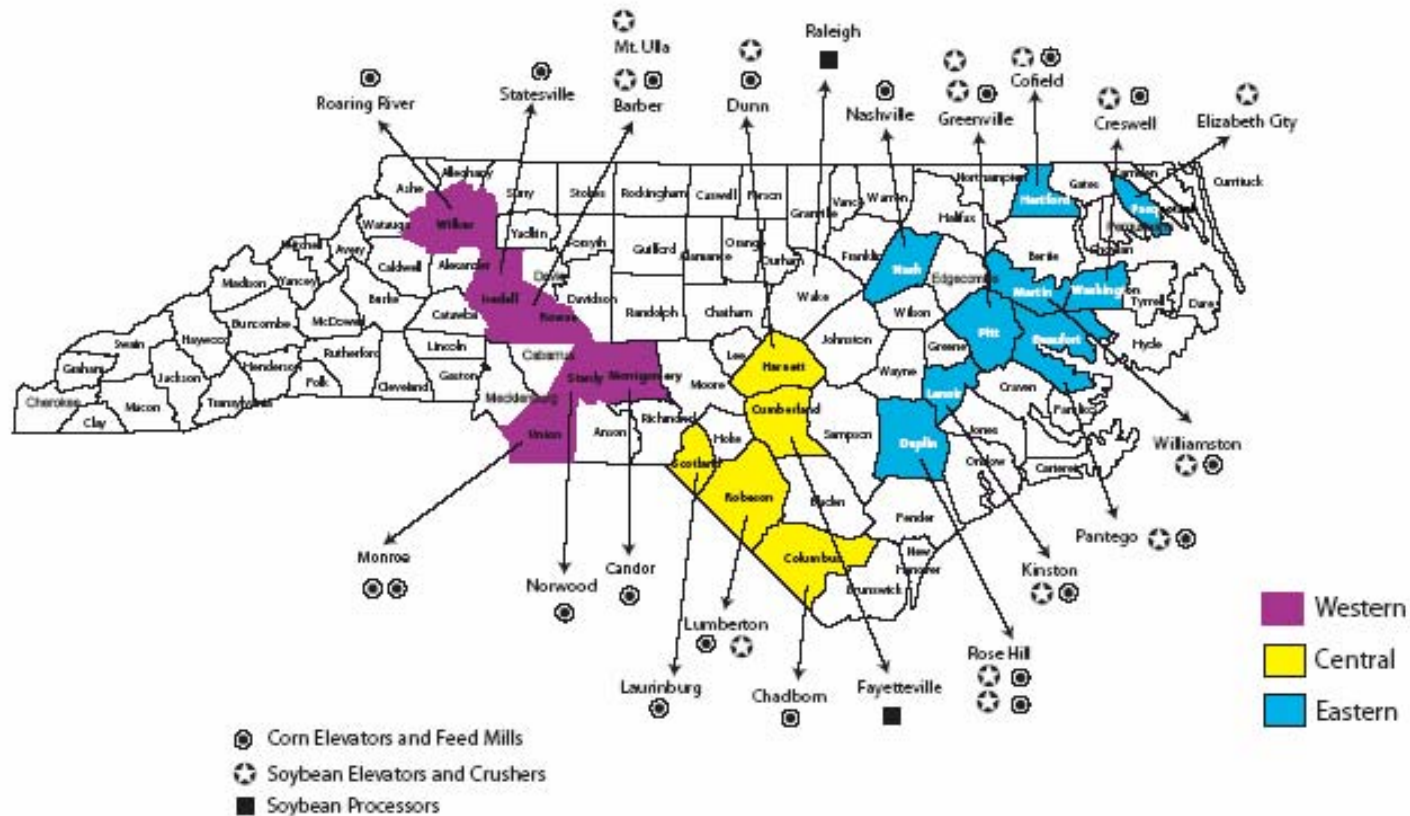
	1990	1997	2002
	Thousand GCAUs		
Beef	29	26	24
Broilers	167	366	386
Layers	155	123	117
Turkeys	85	174	153
Dairy	56	38	29
Hogs	94	70	69
Total	586	796	777

Estimated Grain Production, Utilization, & Deficit *in N.C., S.C., and Ga.*

	1990	1997	2002
	Thousands		
GCAU	6,545	9,048	8,831
Needed CEQ	502,488	694,646	677,981
Produced CEQ	187,277	224,737	141,328
Regional Deficit	315,211	469,908	536,653
% of Use Grown	37%	32%	21%

CEQ = Corn Equivalency Units

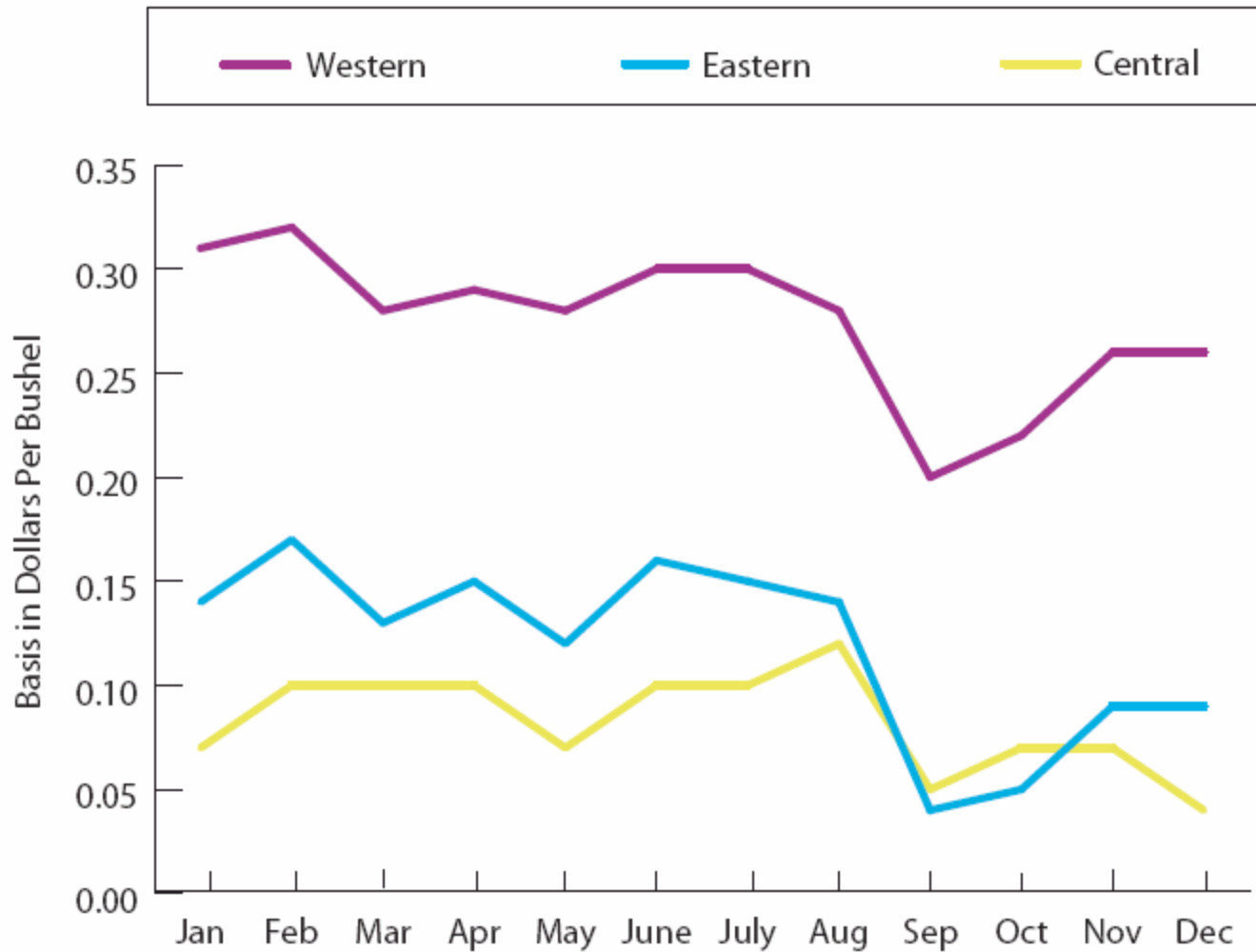
Trends in North Carolina Basis



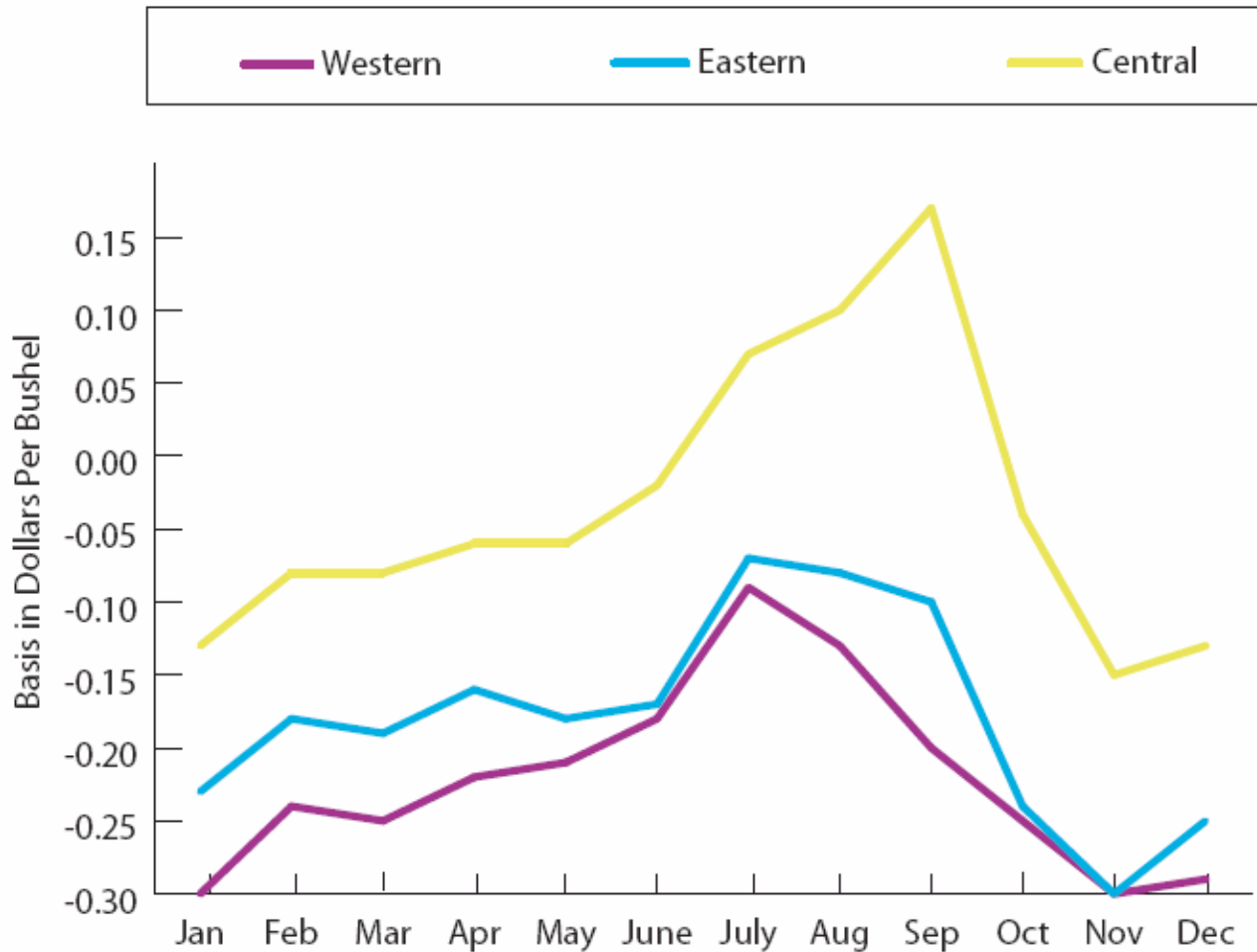
Trends in North Carolina *Grain Basis*

Crop and Market Area	Average Basis (\$/bu)		Average Change in Basis (\$/bu)
	1997 - 1999	2000 - 2002	
Corn			
<i>Western</i>	\$0.32	\$0.23	-\$0.09
<i>Central</i>	\$0.14	\$0.04	-\$0.10
<i>Eastern</i>	\$0.15	\$0.08	-\$0.07
Soybeans			
<i>Western</i>	-\$0.29	-\$0.20	+\$0.09
<i>Central</i>	-\$0.08	-\$0.06	+\$0.02
<i>Eastern</i>	-\$0.16	-\$0.23	-\$0.07

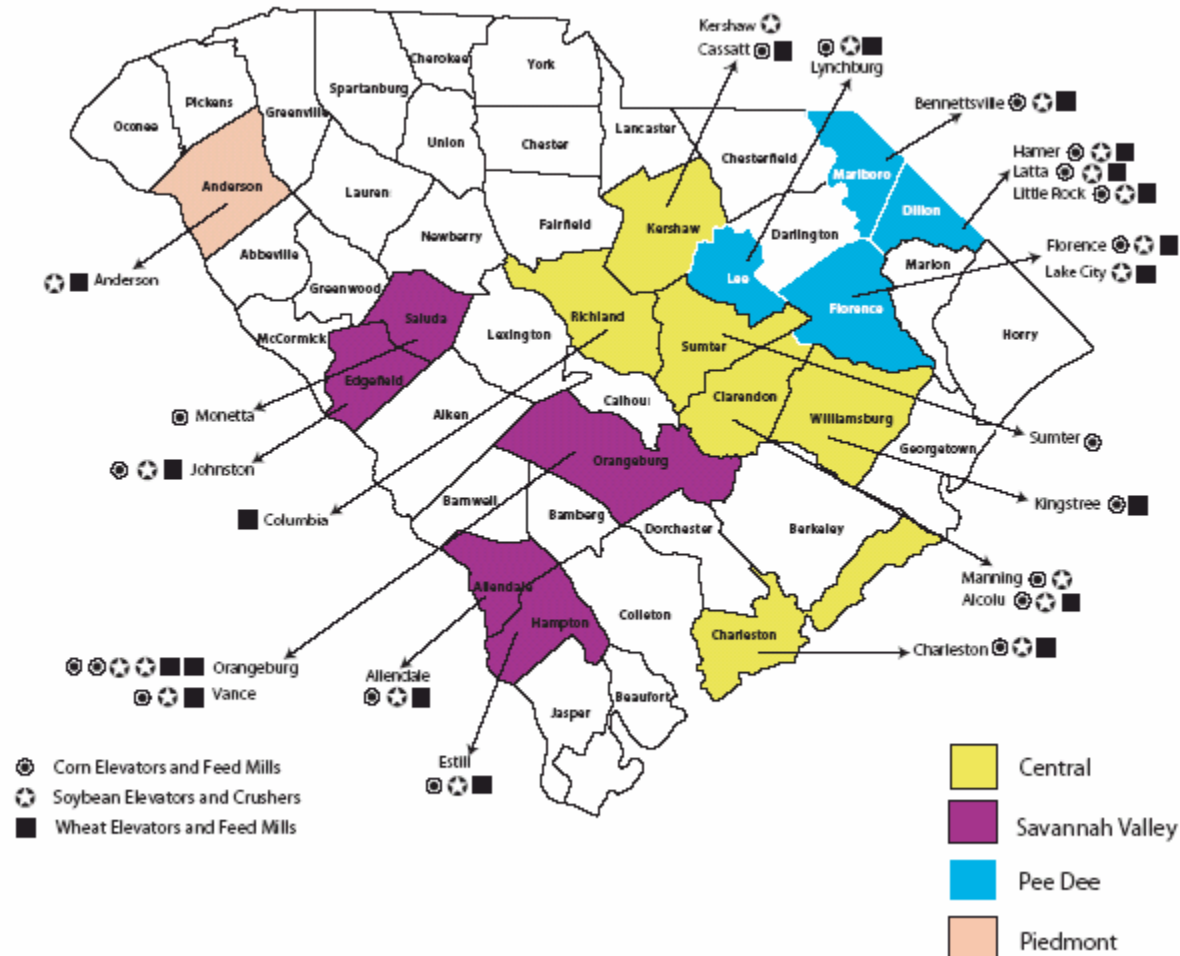
Seasonal Trends *in North Carolina Corn Basis*



Seasonal Trends *in North Carolina Soybean Basis*



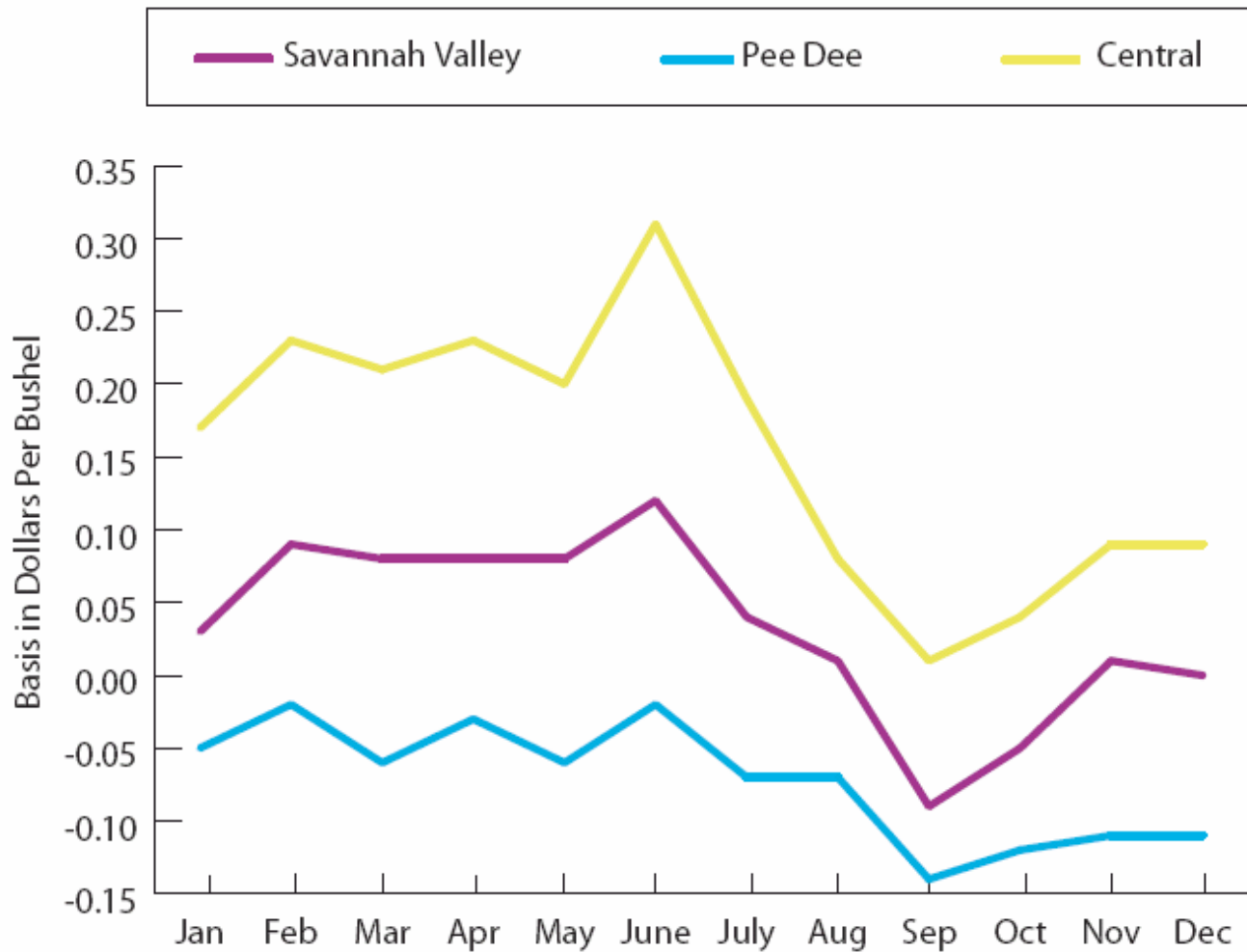
Trends in South Carolina Basis



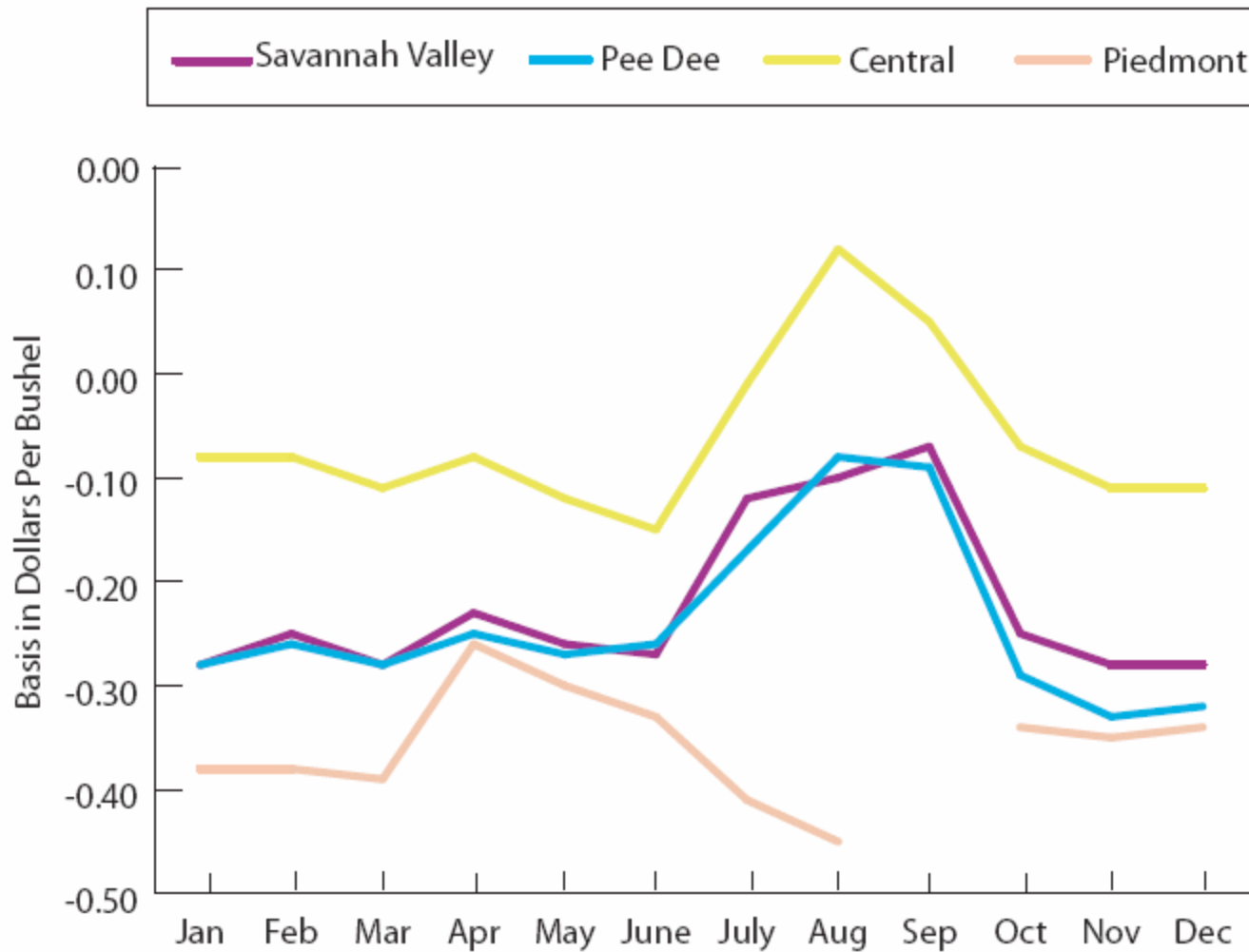
Trends in South Carolina *Grain Basis*

Crop and Market Area	Average Basis (\$/bu)		Average Change in Basis (\$/bu)
	1997 - 1999	2000 - 2002	
Corn			
<i>Central</i>	\$0.13	\$0.06	-\$0.07
<i>Pee Dee</i>	-\$0.03	-\$0.15	-\$0.12
<i>Piedmont</i>	-\$0.07	-\$0.15	-\$0.08
<i>Savannah Valley</i>	\$0.08	-\$0.02	-\$0.10
Soybeans			
<i>Central</i>	\$0.01	-\$0.13	-\$0.14
<i>Pee Dee</i>	-\$0.18	-\$0.32	-\$0.14
<i>Piedmont</i>	-\$0.29	-\$0.45	-\$0.16
<i>Savannah Valley</i>	-\$0.23	-\$0.26	-\$0.03
Wheat			
<i>Central</i>	-\$0.11	-\$0.26	-\$0.15
<i>Pee Dee</i>	-\$0.50	-\$0.51	-\$0.01
<i>Piedmont</i>	-\$0.55	-\$0.51	+\$0.04
<i>Savannah Valley</i>	-\$0.53	-\$0.51	+\$0.02

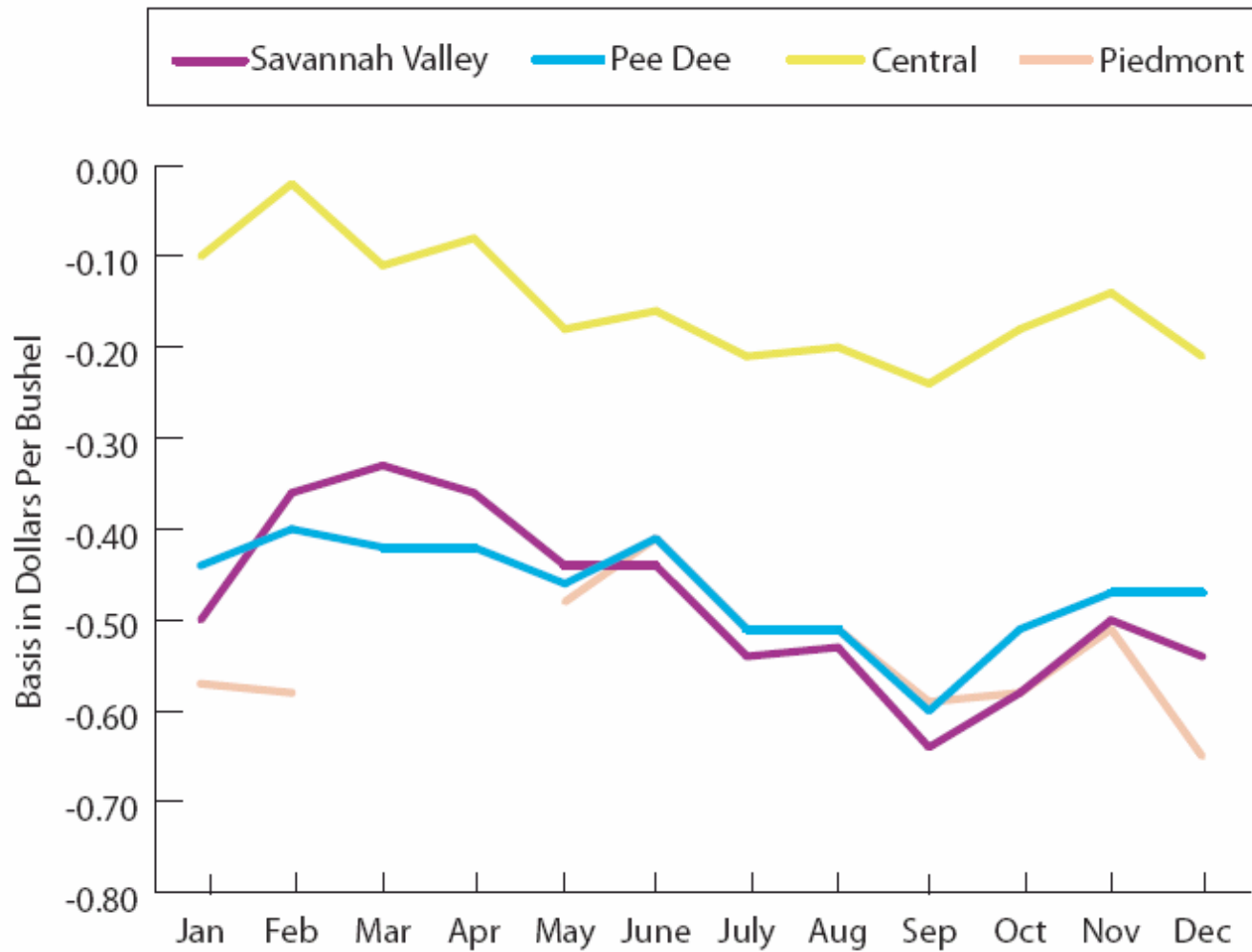
Seasonal Trends *in South Carolina Corn Basis*



Seasonal Trends *in South Carolina Soybean Basis*



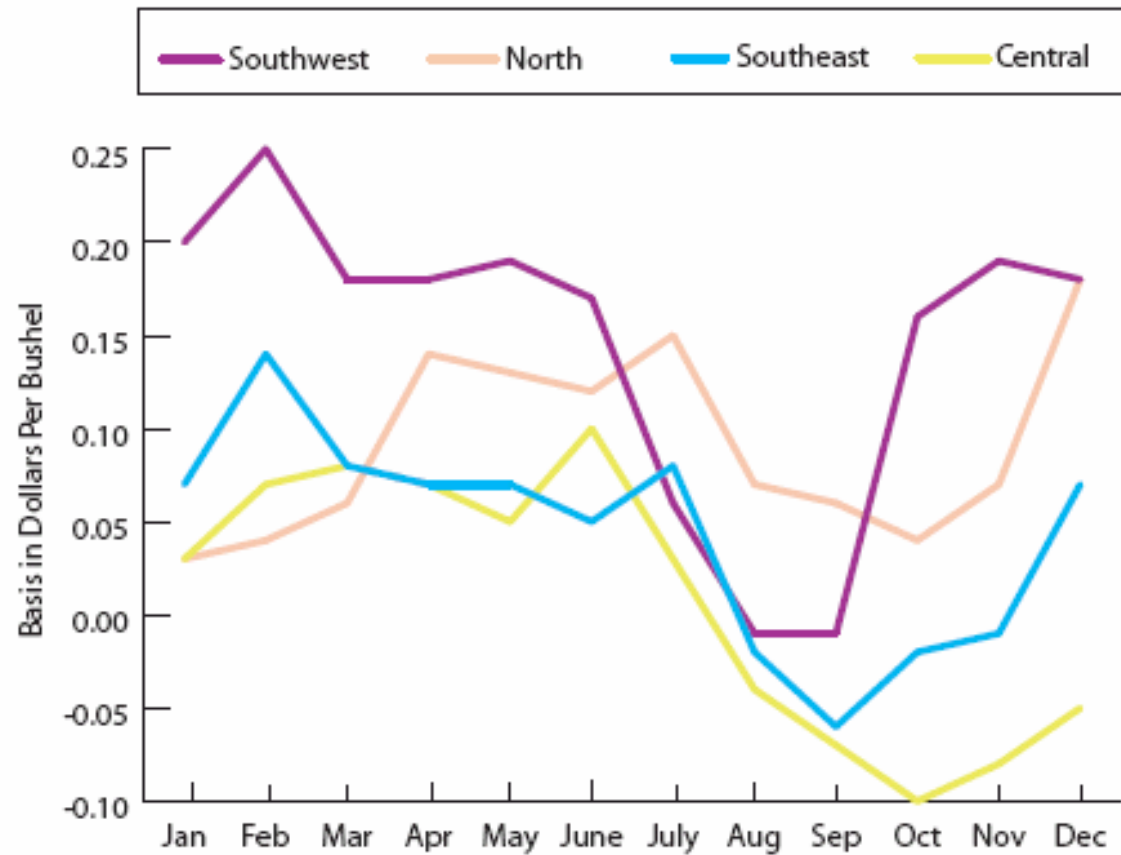
Seasonal Trends *in South Carolina Wheat Basis*



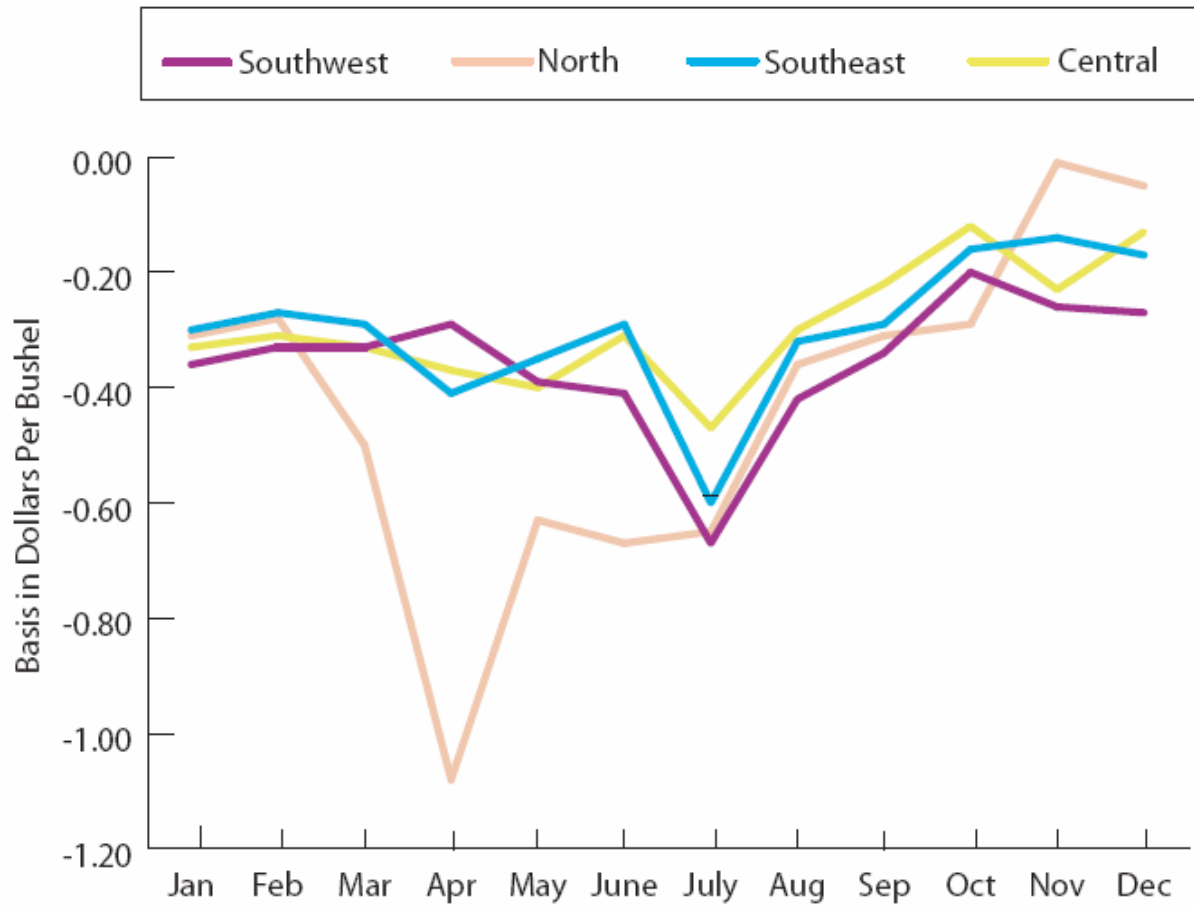
Trends in Georgia *Grain Basis*

Crop and Market Area	Average Basis (\$/bu)		Average Change in Basis (\$/bu)
	1997 - 1999	2000 - 2002	
Corn			
<i>Southeast</i>	0.13	-0.08	-0.21
<i>Southwest</i>	0.16	0.10	-0.06
<i>Central</i>	0.09	-0.07	-0.16
<i>North</i>	0.12	0.08	-0.04
Soybeans			
<i>Southeast</i>	-0.24	-0.36	-0.12
<i>Southwest</i>	-0.37	-0.34	+0.03
<i>Central</i>	-0.32	-0.27	+0.05
<i>North</i>	-0.46	-0.39	+0.07
Wheat			
<i>Southeast</i>	-0.22	-0.44	-0.12
<i>Southwest</i>	-0.22	-0.40	-0.18
<i>Central</i>	-0.39	-0.44	-0.05
<i>North</i>	-0.36	-0.33	+0.03

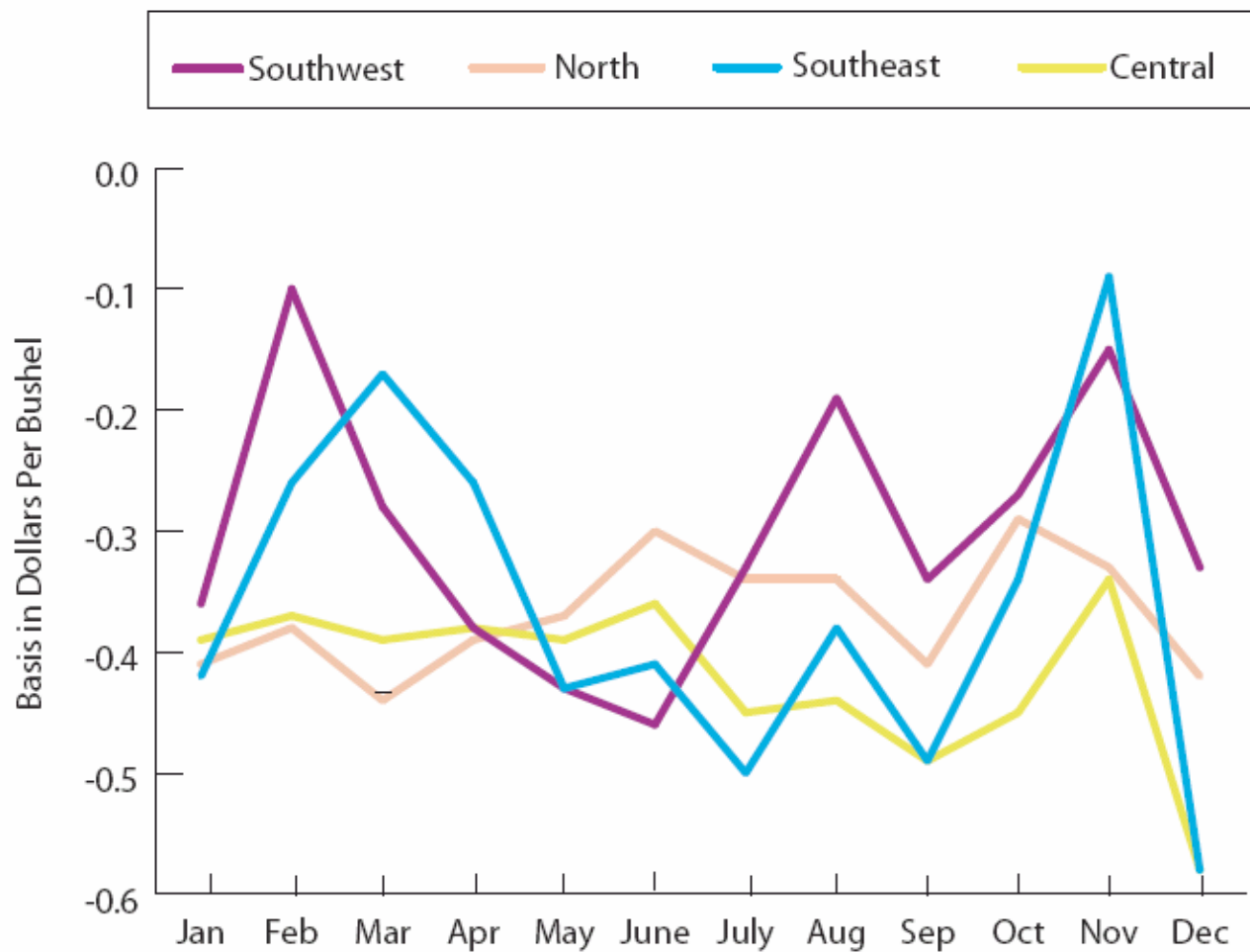
Seasonal Trends *in Georgia Corn Basis*



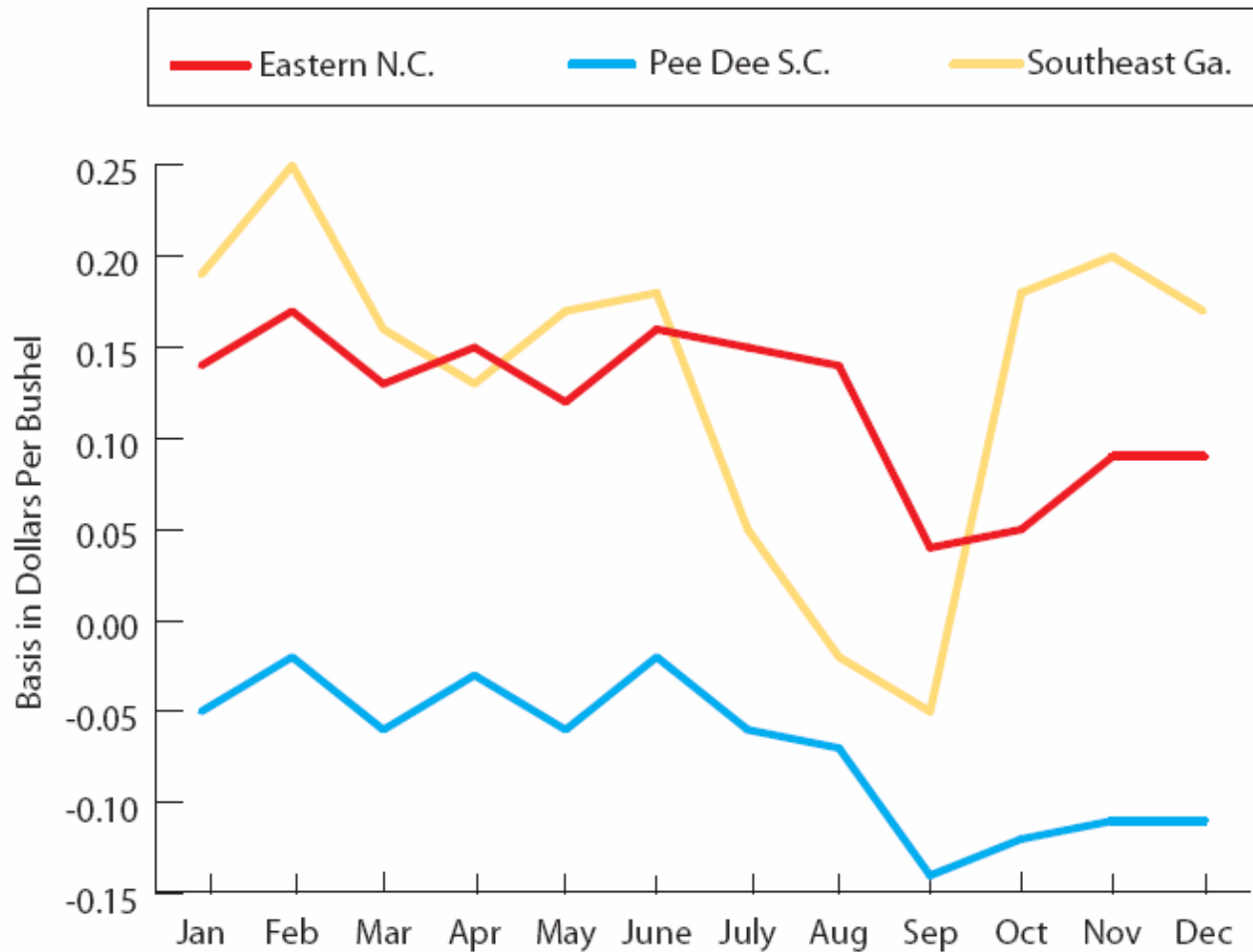
Seasonal Trends *in Georgia Soybean Basis*



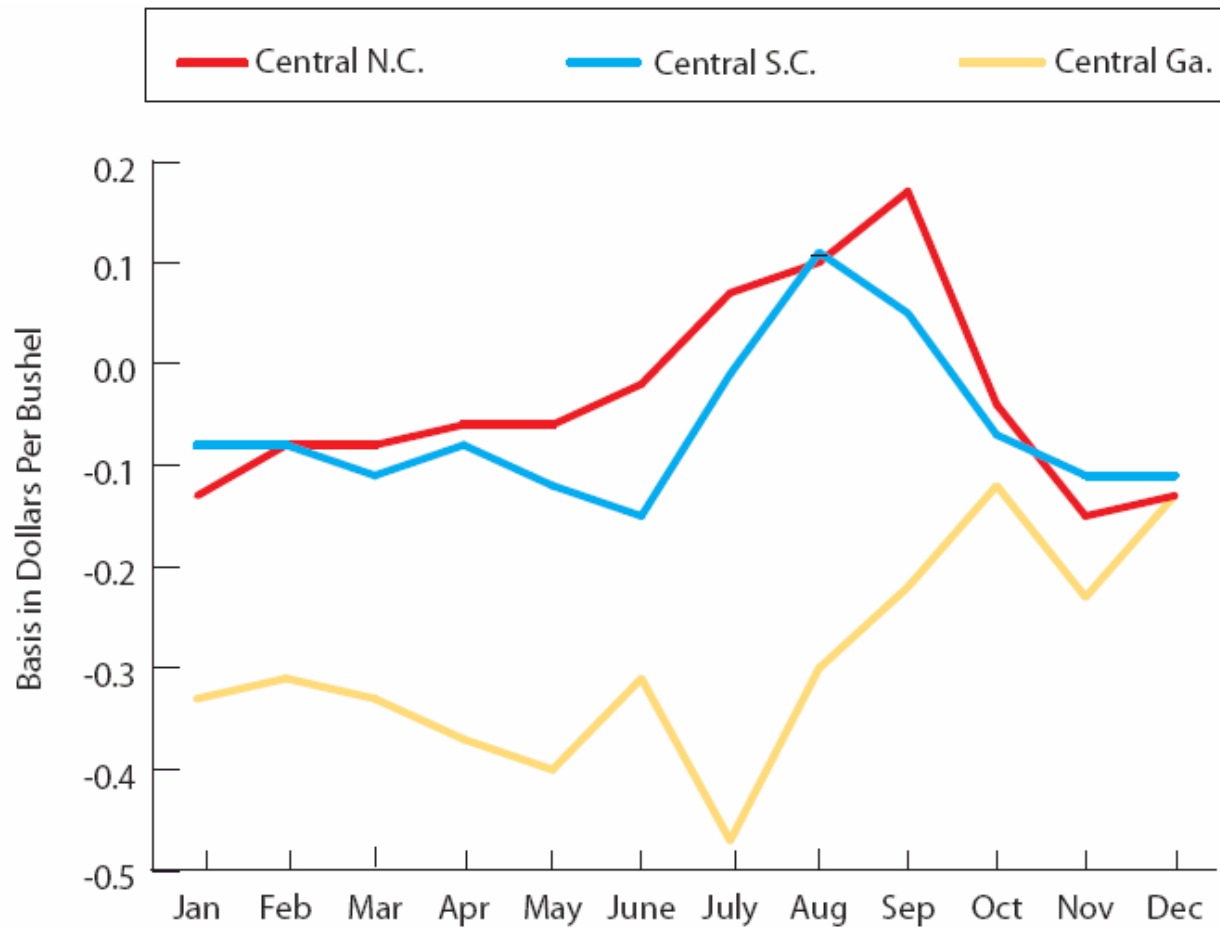
Seasonal Trends *in Georgia Wheat Basis*



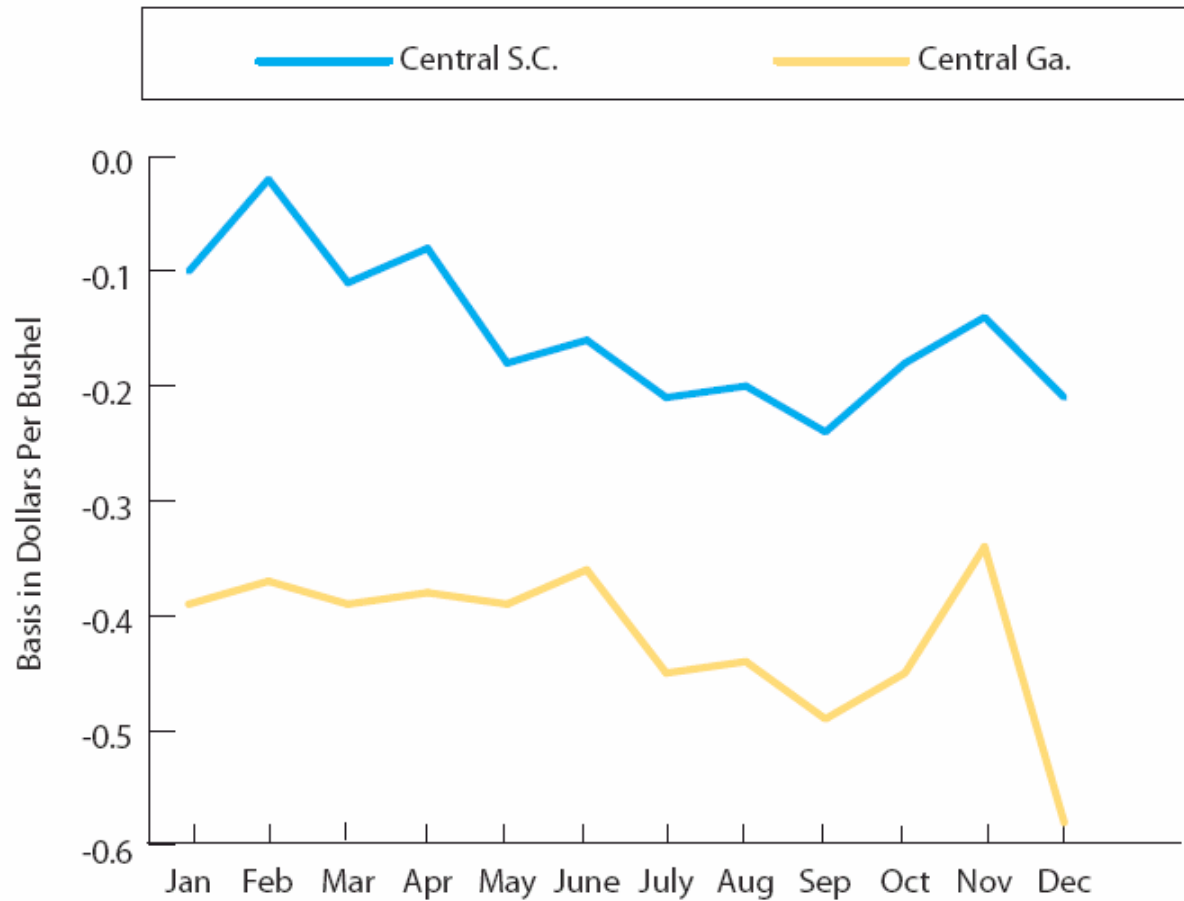
Comparison of Corn Basis Trends Across the Three States



Comparison of Soybean Basis Trends Across the Three States



Comparison of Wheat Basis Trends Across Two States



Using Historical Basis to Make *Informed Risk Management Decisions*

- Think of futures market prices as a price that equates anticipated ***U.S. and world supply and demand.***
- When prices are ***high***, expected ***demand*** is ***greater*** than expected ***supply.***
- When prices are ***low***, expected ***supply*** is ***greater*** than expected ***demand.***

Nearby Futures Price

- **The contract closest to expiration.**
- **Approximates the *current* U.S. and world supply and demand situation.**

Basis

- Measures the *local* supply and demand situation.
- When basis is *strong* (relative to historical levels) local *demand* is greater than local *supply*.
- When basis is *weak* (relative to historical levels) local *supply* is greater than local *demand*.

Using Basis to Evaluate *Cash Bids*

Assuming no major changes in the local market, then the following *should be* pretty close:

Current Cash Bid

should be expected to =

Nearby Futures + Historical Basis

Using Basis to Evaluate *Cash Bids*

However,

When the current cash bid is ***above*** the expected bid, then the basis is considered ***strong*** and the bid is “***attractive.***”

and

When the current cash bid is ***below*** the expected bid, then the basis is ***weak*** and the bid is “***unattractive.***”

Using Basis to Evaluate *Cash Bids*

EXAMPLE: A corn buyer is offering a cash bid for immediate October delivery that contains a basis of 20 cents over the December nearby futures.

Is this an attractive bid?

(Hint: What is the historical basis for that time of year?)

Using Basis to Evaluate *Cash Bids*

EXAMPLE: A corn buyer is offering a cash bid for immediate October delivery that contains a basis of 20 cents over the December nearby futures.

Historical basis has averaged 3 cents *under* the December nearby futures price in October.

So, this is an “*attractive*” bid with a very “*strong*” basis.

Using Basis to Evaluate *Forward Price Bids*

Just as we can evaluate current cash bids by using the historical basis, we can also do the same for cash forward price bids:

Cash Forward Price Bid

should be expected to =

**Harvest Contract Futures
+ Historical Basis at Harvest**

Using Basis to Evaluate *Forward Price Bids*

However,

When the cash forward price bid is **above** the expected bid, then the basis is considered **strong** and the bid is “**attractive.**”

and

When the cash forward price bid is **below** the expected bid, then the basis is **weak** and the bid is “**unattractive.**”

Using Basis to Evaluate *Forward Price Bids*

EXAMPLE: A soybean producer is interested in fixing a price in June when November futures are at \$6.00 for delivery in October. A local buyer is offering a cash forward price contract bid of \$5.85 for October delivery.

Is this an attractive bid?

(Hint: What is the historical basis for that time of the year?)

Using Basis to Evaluate *Forward Price Bids*

EXAMPLE: A soybean producer is interested in fixing a price in June when November futures are at \$6.00 for delivery in October. A local buyer is offering a cash forward price contract bid of \$5.85 for October delivery.

The historical basis in that market area for October delivery was an average of 27 cents under the November contract.

The implied basis in the offer is 15 cents under and would be considered **strong**, and thus the bid would be considered “**attractive.**”

Using Basis to Decide *Whether to Hedge*

Hedging eliminates ***futures price risk*** while maintaining ***basis risk***.

To be successful, basis risk ***must be less*** than futures price risk.

Using Basis to Decide *Whether to Hedge*

EXAMPLE: Assume soybean futures of \$6.00 and historical basis of minus 30 cents yielding an expected cash price of \$5.70.

- If basis were to vary by 100% (30 cents), the cash price would vary *from \$5.40 to \$6.00*, a range of \$0.60.
- If futures prices were to vary by only 10% (60 cents), cash prices would vary *from \$5.10 to \$6.30*, a range of \$1.20.

Lesson: A small % change in futures can cause a greater change in cash prices than a large % change in basis.

Using Basis to Decide *Whether to Hedge*

EXAMPLE: A soybean producer is deciding between hedging or forward-contracting his crop in June when November futures are at \$6.00 for delivery in October. A local buyer is offering a cash forward price contract bid of \$5.65 for October delivery.

Cash forward basis is minus 35 cents while the historical basis has been minus 27 cents.

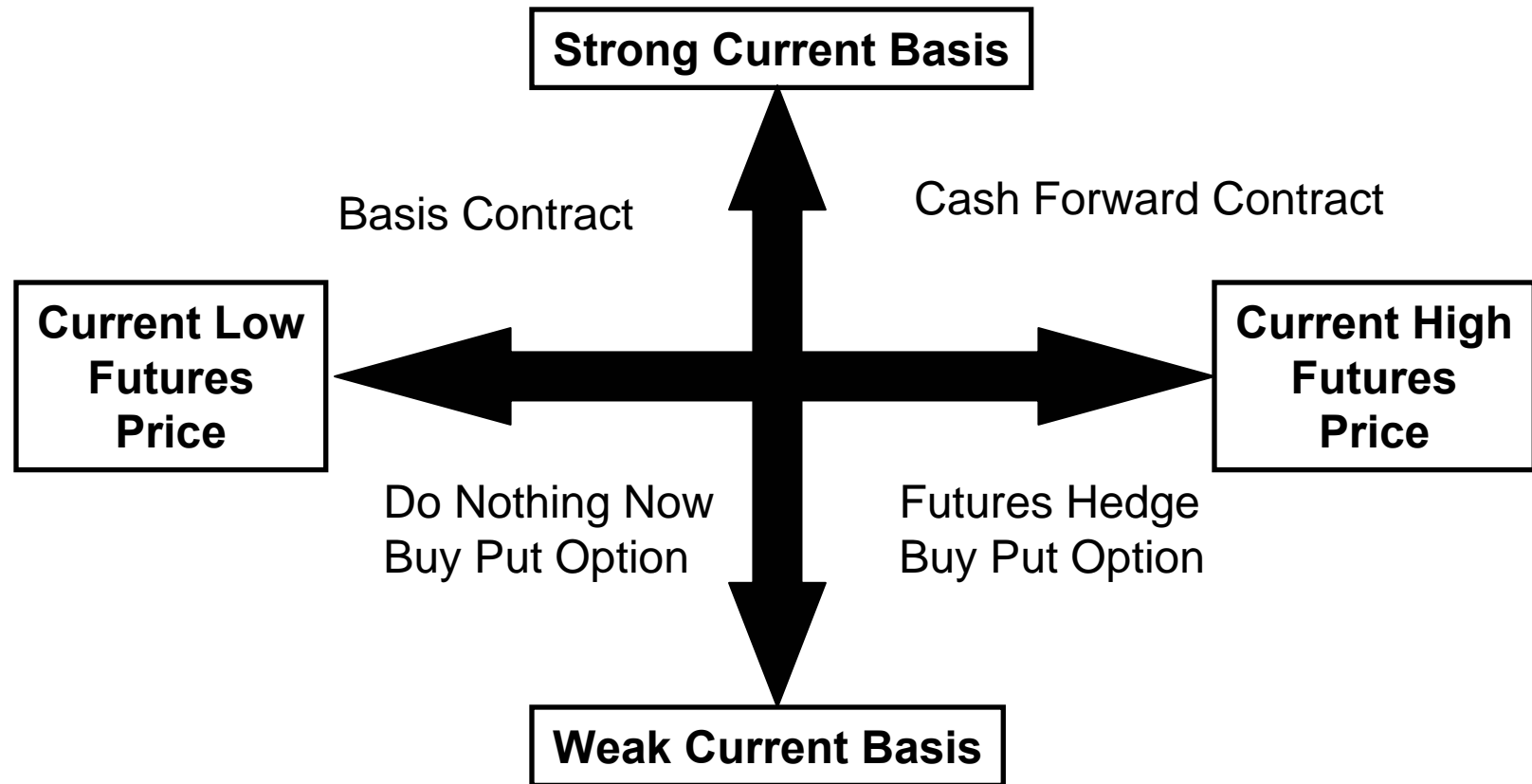
We have an *acceptable futures price* but a *weak basis*.

Pass on the cash forward contract, and hedge with the expectation the basis will recover to historic levels.

Marketing Strategies and Their Impact on Futures Price And Basis Risks

<i>Marketing Strategy</i>	<i>Futures Price Risk</i>	<i>Basis Risk</i>
Cash Sale At Harvest	Yes	Yes
Cash Forward Contract	No	No
Basis Contract	Yes	No
Futures Hedge	No	Yes
Options Hedge (Put)	No	Yes

Recommended Marketing Strategies for Different Futures Price and Basis Risk Situations



Using Basis to Decide *Whether to Store*

The objective of storage is to receive a cash price later that is more than enough to offset the costs of storage.

Fixed costs, conditioning, preservation, opportunity cost, loss of quality

Using Basis to Decide *Whether to Store*

Sources of Cash Price Gain:

- The **carry** or the difference between nearby futures and deferred month contracts.
- **Strengthening** of the basis.

Using Basis to Decide *Whether to Store*

Futures Carry
+ Basis Gain
- Storage Costs
Return on Storage

Using Basis to Decide *Whether to Store*

EXAMPLE: In October at harvest, November soybean futures are at \$5.70 per bushel; March futures are at \$5.90. The current basis is minus 30 cents, right at the historical average. It costs 8 cents per month to hold the soybeans.

Will it pay to hold the beans until February (four months)?

(Hints: What is the carry, and how much will basis gain?)

Using Basis to Decide *Whether to Store*

EXAMPLE: In October at harvest, November futures are at \$5.70 per bushel; March futures are at \$5.90. The current basis is minus 30 cents, right at the historical average. It costs 8 cents per month to hold the soybeans.

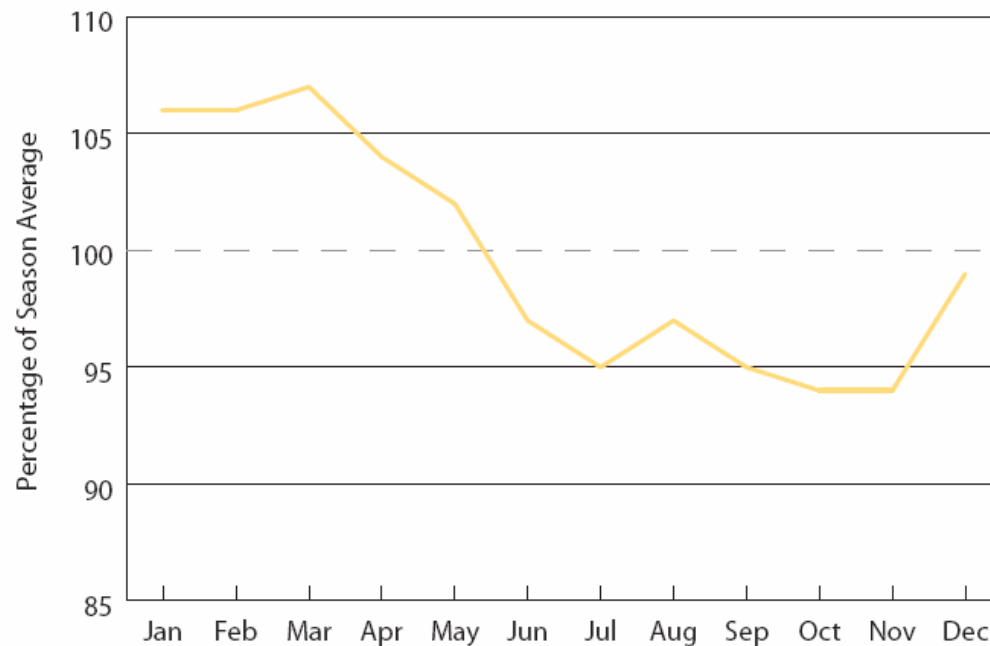
The **carry** = \$5.90 - \$5.70 = **\$.20 per bushel**

Historical basis in February has averaged minus 15 cents. **Basis gain** = **\$.15** [-\$.15 - (-\$.30) = \$.15]

“Pencil Profit” = .20 + .15 – cost of storage
= .20 + .15 - .32 = .03 per bushel

Combining Basis with *Seasonal Price Tendencies*

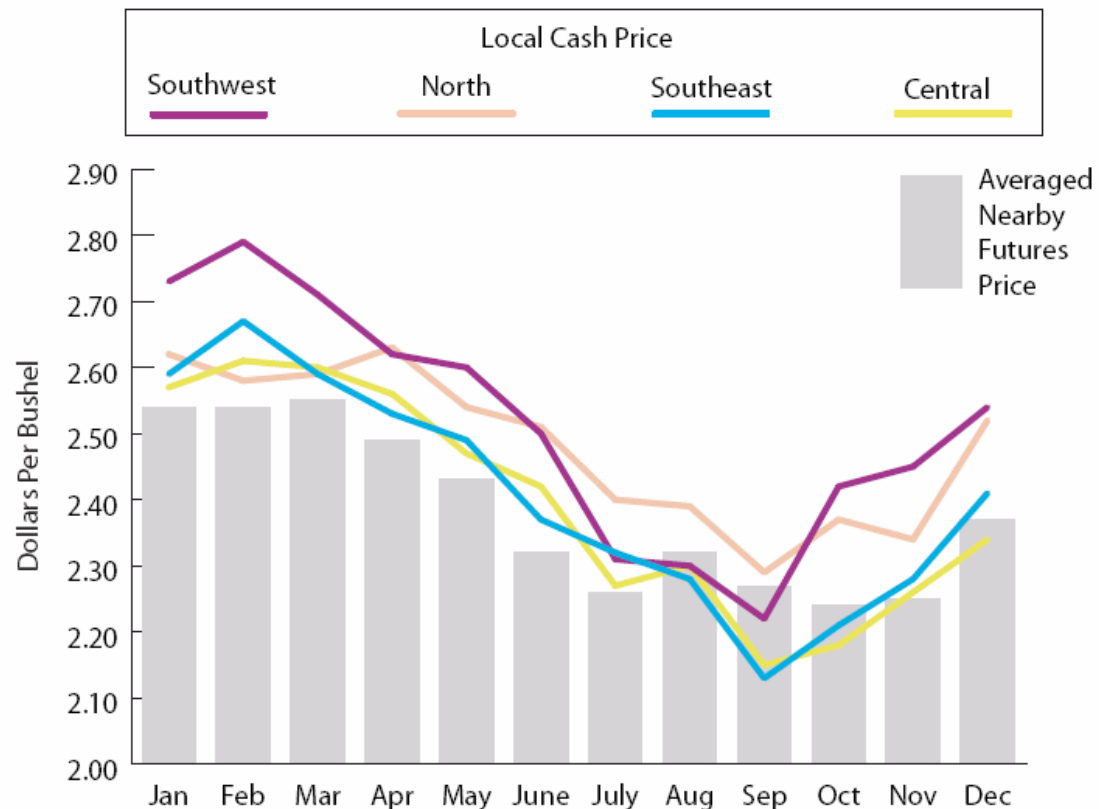
Futures prices tend to move in a seasonal pattern – not always the same each year, but the tendency is there over time.



Georgia corn seasonal nearby futures tendencies, 1997 – 2002

Combining Basis with Seasonal Price Tendencies

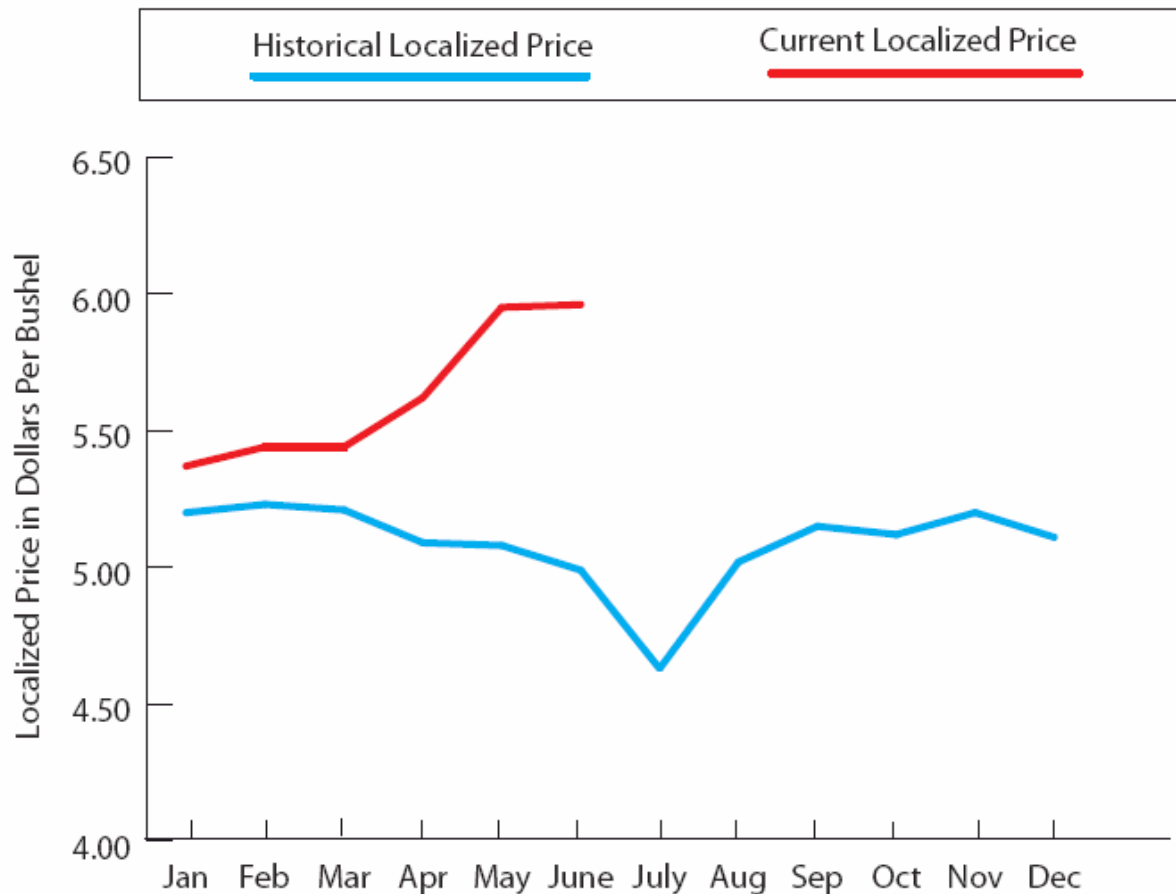
We can *adjust* the seasonal pattern of futures to local areas by *adding in* the local basis.



Adjusted seasonal local corn cash prices in Georgia compared to averaged nearby futures price

Using Localized Historical Seasonal Tendencies to Evaluate Current Prices

It is often difficult to decide whether or not a current bid is a relatively “attractive” without a benchmark for comparison.



**Southeast
Georgia
soybean
prices,
historical and
2003**

Government Programs and their *Influence on Marketing Decisions*

Income Support Programs *A 3-Tier Safety Net*

- **Direct (or Fixed) payments (DPs)**
- **Counter-cyclical payments (CCPs)**
- **Marketing loan and loan deficiency payments (LDPs)**

Direct Payments

- **Payments are decoupled from actual price and actual production in any given year.**
- **Payments will be received regardless of what and how much is produced.**
- **Rate for each commodity is fixed over the life of the program (2002 through 2007).**

Wheat = \$0.52

Corn = \$0.28

Soybeans = \$0.44

Paid on 85% of base acres.

Counter Cyclical Payments

- Similar to the old deficiency payment system.
- Decoupled from production.
- The CCP rate is set with the following formula:

$$\text{CCP Rate} = \text{Target Price} - \text{Effective Price}$$

Effective price is the **higher** of:

National Season Average Price + Direct Payment Rate

or

National Loan Rate + Direct Payment Rate

Maximum Counter Cyclical Payments

Maximum CCP occurs if:

National Season Average Price + Direct Payment
is at or below

Loan Rate + Direct Payment

	<u>2003</u>	<u>2004</u>
Wheat	\$0.54	\$0.65
Corn	\$0.34	\$0.40
Soybeans	\$0.36	\$0.36

Paid on 85% of base acres.

Loan Programs and *Loan Deficiency Payments*

Unlike direct payments and counter cyclical payments, *the loan program has an impact* upon marketing decision-making.

It effectively places a *floor* under the market at the effective loan rate for the grower, *thereby reducing further downside price risk.*

Loan Programs and *Loan Deficiency Payments*

- **Benefits are coupled to local prices as determined by the USDA.**
- **Benefits are available on ALL actual production.**
- **Loans are nonrecourse loans: The borrower's obligation is limited to repayment at the lower of the *posted county price* or the loan principal plus interest**
- **Borrower may forfeit the commodity in lieu of repaying the loan**

Loan Programs and *Loan Deficiency Payments*

National Loan Rates 2002 - 2007

Commodity	Loan Rate	
	2002 - 03	2004 - 07
Wheat (bu)	\$2.80	\$2.75
Corn (bu)	\$1.98	\$1.95
Soybeans (bu)	\$5.00	\$5.00

Selected County-Level Loan Rates in NC, S.C. and G.a.

	National	Iredell	Kershaw	Screven
Commodity	Loan Rate	County	County	County
	2003	N.C.	S.C.	Ga.
Wheat (bu)	\$2.80	\$2.50	\$2.50	\$2.45
Corn (bu)	\$1.98	\$2.22	\$2.19	\$2.23
Soybeans (bu)	\$5.00	\$5.14	\$5.04	\$5.05

Source <http://www.fsa.usda.gov/dafp/psd/>

Loan Programs and *Loan Deficiency Payments*

A producer must retain ***beneficial interest*** to enter the crop in the loan program or to be eligible to receive an LDP.

Beneficial interest means the producer must retain:

Control of the commodity,
Risk of loss, and
Title to the commodity.

Choice of Marketing Strategies *Can Affect Beneficial Interest*

<u>Strategy</u>	<u>Beneficial Interest Lost</u>
Cash forward contract	At delivery
Basis contract	At delivery
Deferred pricing	At delivery
Futures hedging	At cash sale
Put option	At cash sale
On-farm storage	At cash sale
Commercial storage	At cash sale

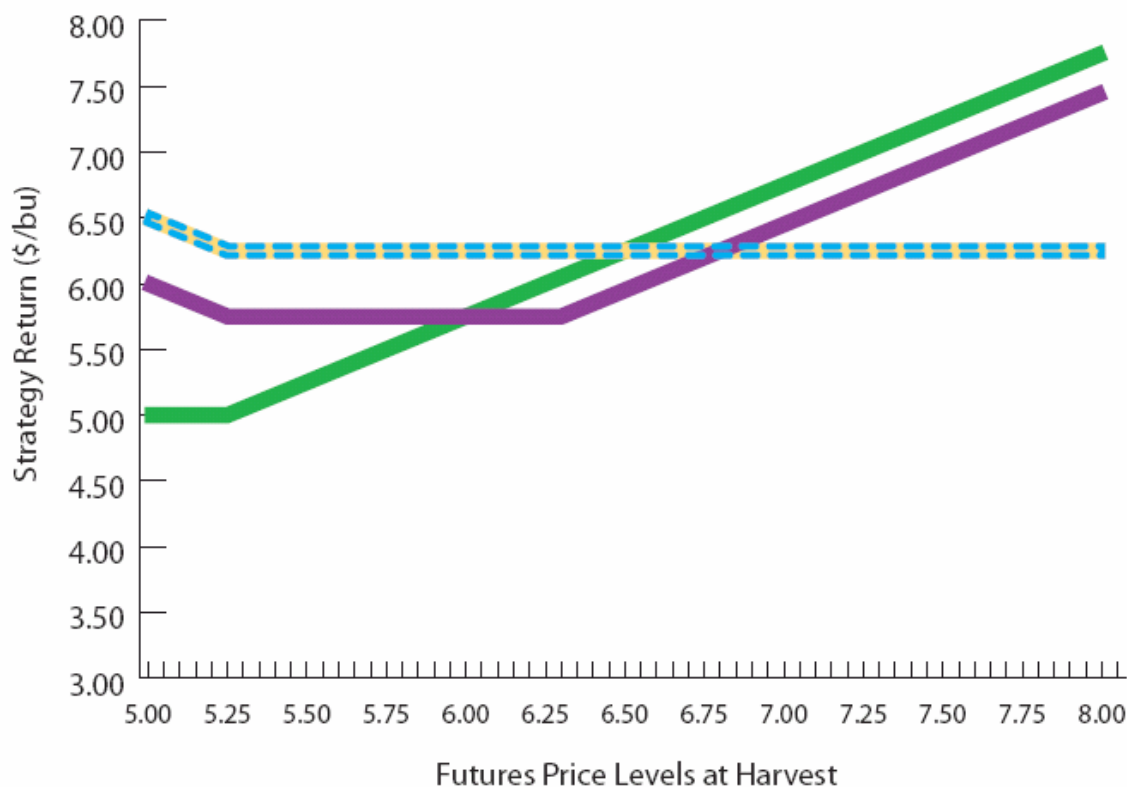
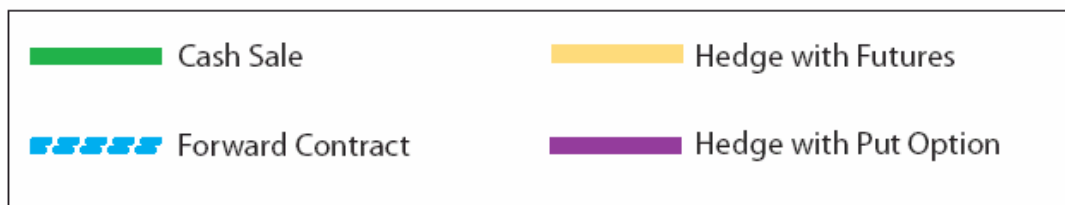
How Do Government Programs Affect *Producer Marketing Strategies?*

- The challenge is to maximize revenues available.
- Producers have no influence over price levels or loan deficiency payment levels.
- ***Timing of acceptance is the key.***
 - Sell at ***high*** cash price.
 - Claim LDP when the LDP rate is ***high***.
 - ***Separate*** the decisions. The LDP rate and the posted county price are ***inversely related***.

How Do Government Programs Affect *Producer Marketing Strategies?*

The only time government programs make an impact on producer marketing decisions is *when the cash market price is near or below the effective loan rate.*

When Cash Prices Are *Well Above the Loan Rate*



A comparison of returns from marketing strategies *with* LDP receipts

PREHARVEST SCENARIO FOR SOYBEANS

Loan rate = \$5.00

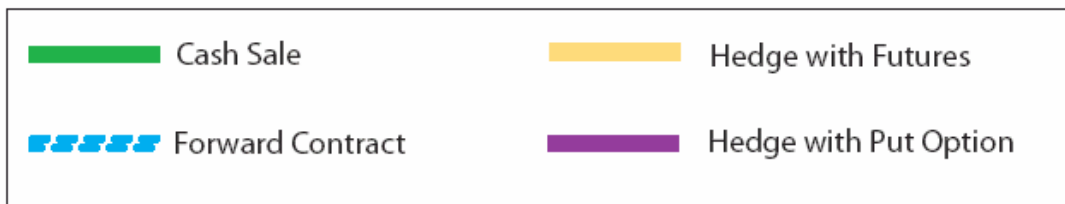
November futures = \$6.50

Put option S = \$6.30

P = \$0.30

Basis at harvest = - \$0.25

When Cash Prices Are *Near the Loan Rate*



A comparison of returns from marketing strategies *with* LDP receipts

PREHARVEST SOYBEAN SCENARIO

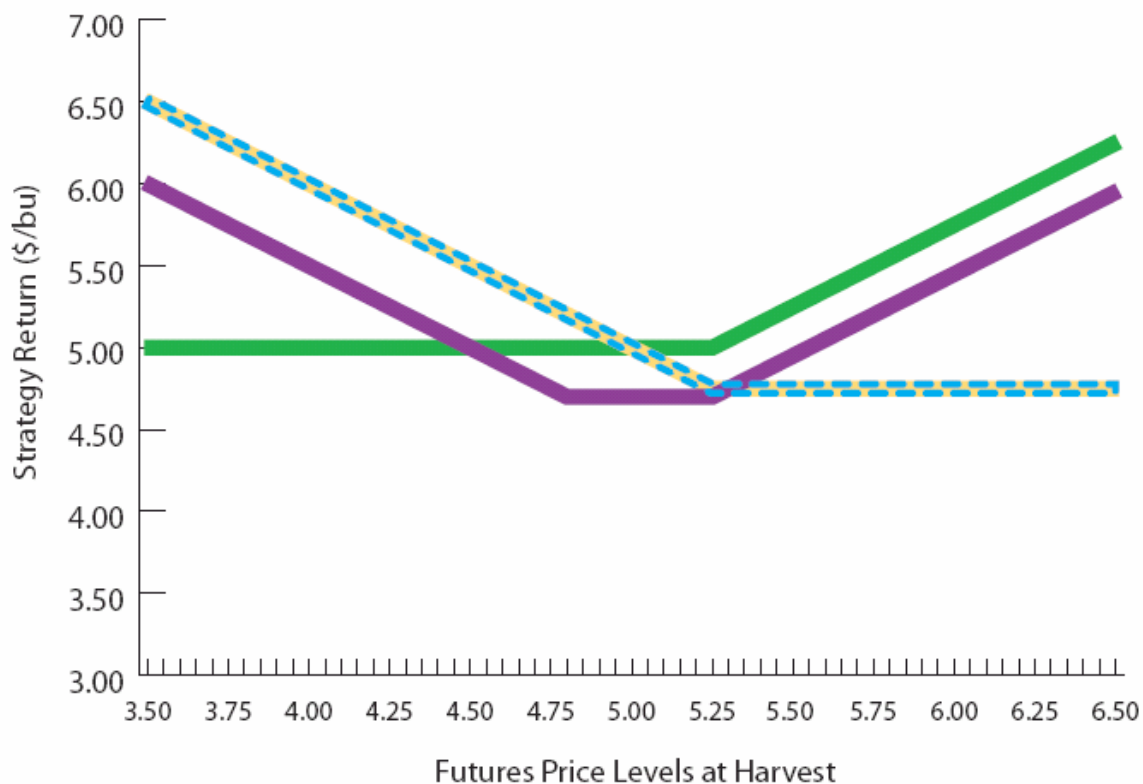
Loan Rate = \$5.00

November futures = \$5.00

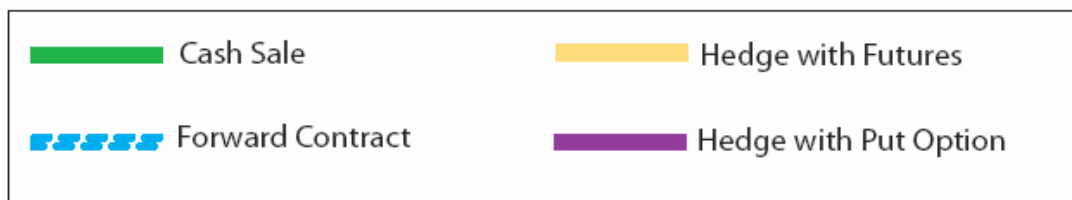
Put option S = \$4.80

P = \$0.30

Basis at harvest = - \$0.25



When Cash Prices Are *Below the Loan Rate*



A comparison of returns from marketing strategies *with* LDP receipts

PREHARVEST SOYBEAN SCENARIO

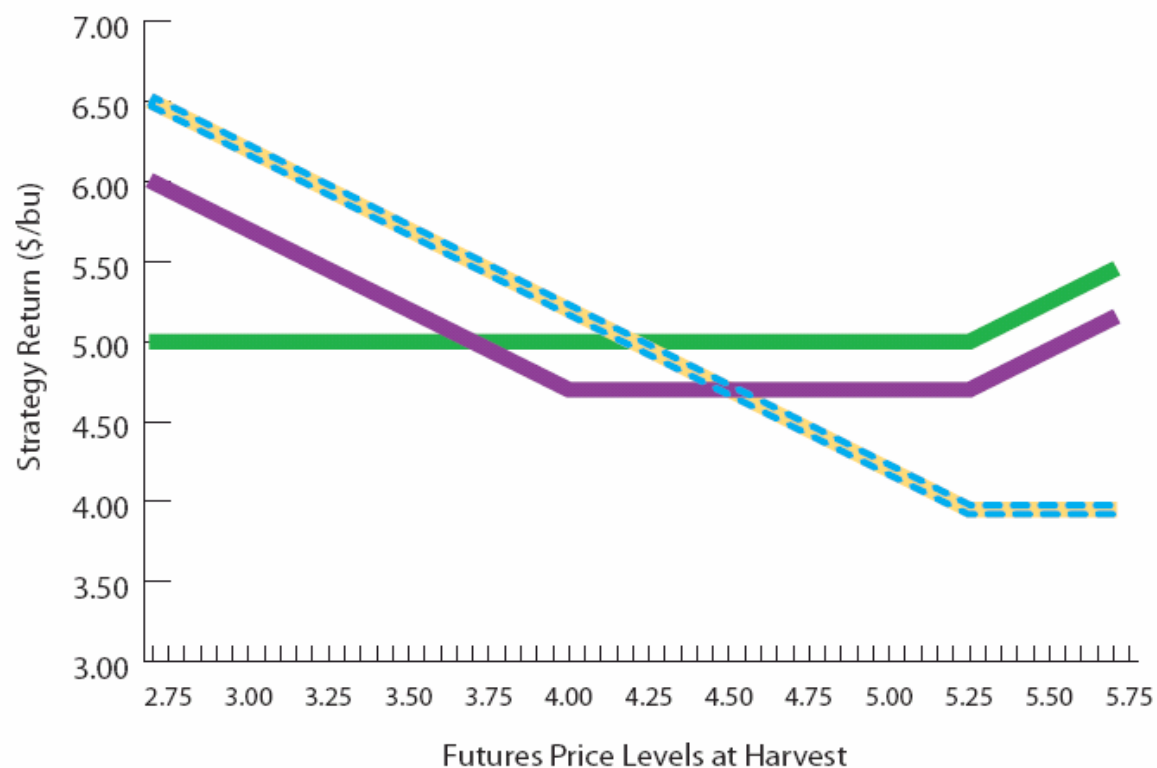
Loan rate = \$5.00

November futures = \$4.20

Put option S = \$4.00

P = \$0.30

Basis at harvest = - \$0.25



What Happens *When Basis Changes?*

Changes in basis affect the four basic marketing strategies differently.

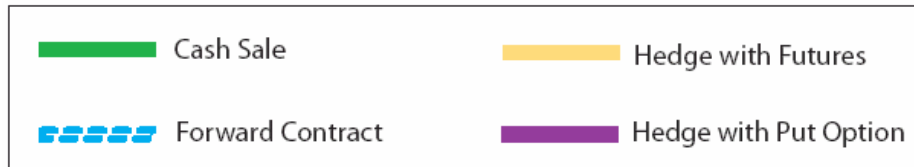
Forward contracts: Unaffected

Hedging with futures: Affected

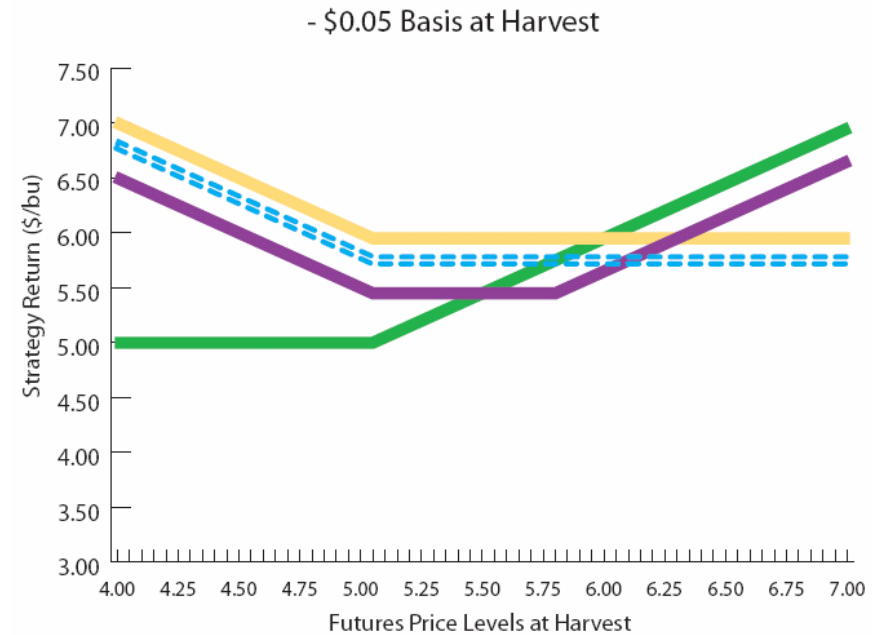
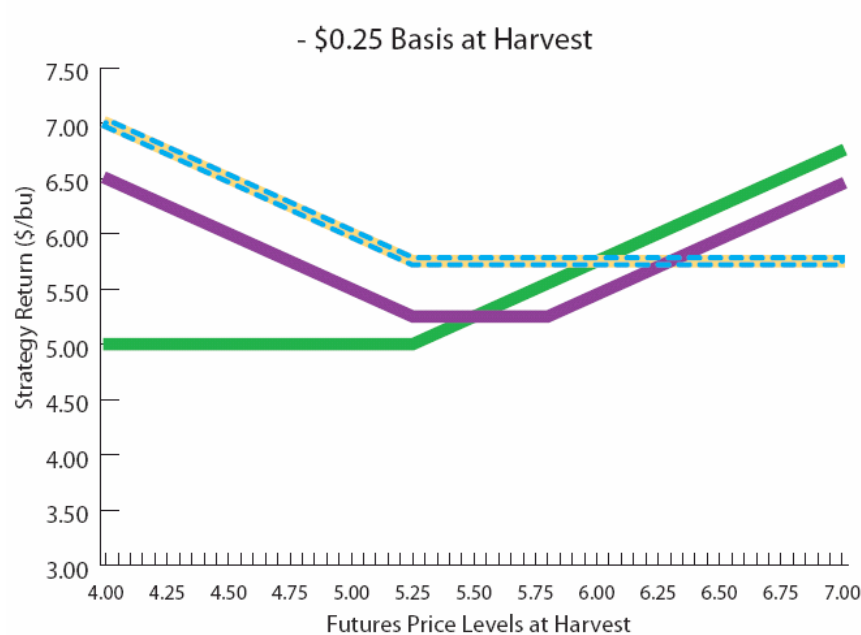
Hedging with options: Affected

Cash sale: Affected

When Basis *Strengthens* *WITH LDP Receipts*

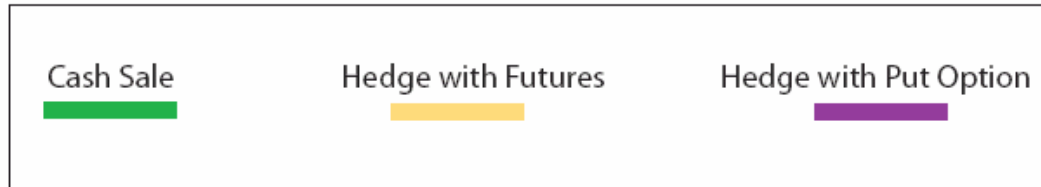


A comparison of returns from marketing strategies *with* LDP receipts

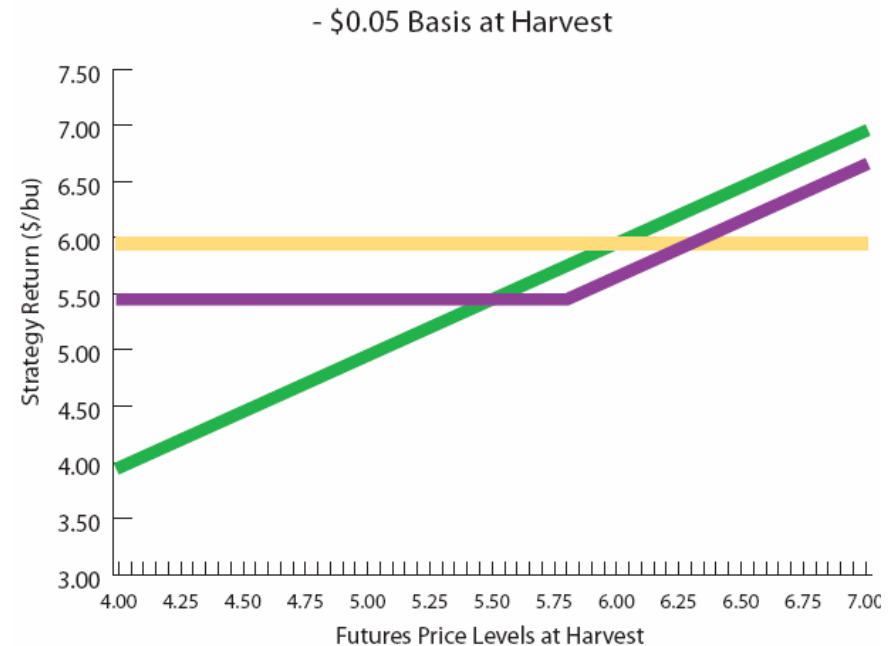
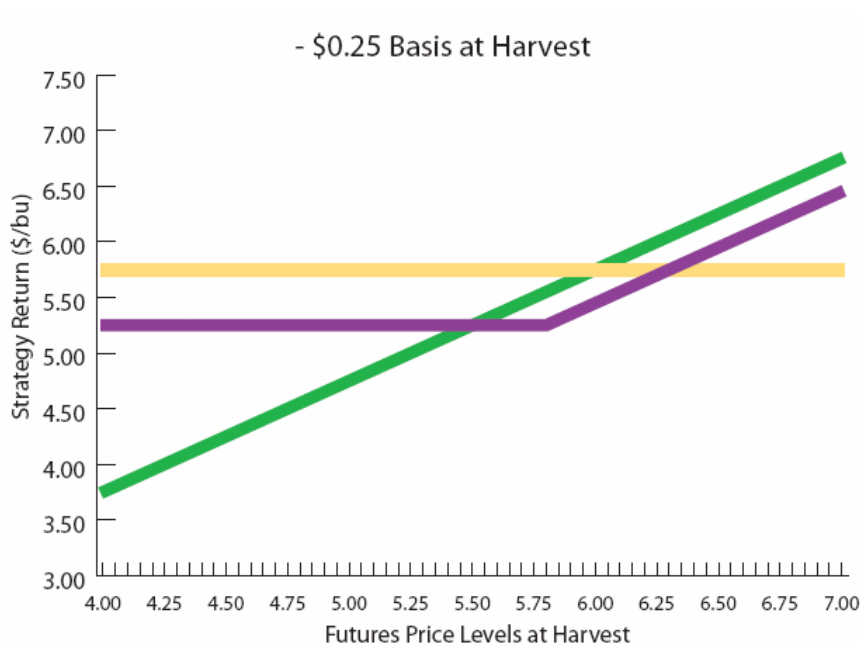


PREHARVEST SOYBEAN SCENARIO: Loan rate = \$5.00; November futures = \$6.00; Put option S = \$5.80, P = \$0.30; Basis at harvest -- Expected = - \$0.25, Actual = - \$0.05

When Basis *Strengthens* *WITHOUT LDP Receipts*



A comparison of returns from marketing strategies *without* LDP receipts



PREHARVEST SOYBEAN SCENARIO: Loan rate = \$5.00; November futures = \$6.00; Put option S = \$5.80, P = \$0.30; Basis at harvest -- Expected = - \$0.25, Actual = - \$0.05

How Do Government Programs Affect *Producer Marketing Strategies?*

- When the LDP is taken, a **strengthening in basis** is **beneficial only** when realized futures price levels rise **above** an amount equal to the loan rate less basis.
- At prices levels below the loan rate, any strengthening in basis is **fully offset** by an equal reduction in the size of the LDP.

How Do Government Programs Affect *Producer Marketing Strategies?*

Therefore,

when pre-harvest price levels are **below** the loan rate, the best strategy is to hedge using futures or options rather than to forward-contract because there is **no apparent basis risk as long as the realized price remains below the loan rate.**

How Do Government Programs Affect *Producer Marketing Strategies?*

- When actual basis differs from historic local basis, **the results of a marketing strategy that does not lock in the basis will be less or more than expected.**
- A strategy will yield different results depending on its exposure to **basis risk.**
- Any differences, however, will be apparent only if realized futures price levels rise **above** an amount equal to the loan rate less basis.

How Do Government Programs Affect *Producer Marketing Strategies?*

Remember,

- A **weakening** in basis at price levels **below** the loan rate is fully offset by an equal **increase** in the size of the LDP.
- A **strengthening** in basis at price levels **below** the loan rate is fully offset by an equal **decrease** in the LDP.

Summary

- Of the three basic forms of income-support—only **one**, the loan program or LDP, makes a significant impact on marketing decisions.
- For a wide range of potential futures prices and LDP, a put-option strategy yields a “**bowl-shaped**” return as realized futures reach the loan rate.

Summary

- After comparing four basic strategies and considering uncertain market conditions, **purchasing a put option** emerges as the most powerful strategy for risk management.
- This occurs at price levels **at or below the loan rate** because a 2-for-1 gain takes effect below the loan rate.

Summary....

- Considering LDP payments, strategies that **do not lock in a basis** will yield different results depending on how basis performs.
- The differences are apparent only when realized futures prices rise **above** an amount equal to the loan rate minus basis.

Supplemental Tables

www.ag-econ.ncsu.edu/faculty/piggott/handbook.htm

NORTH CAROLINA		SOUTH CAROLINA			GEORGIA		
Soybeans	Corn	Soybeans	Corn	Wheat	Soybeans	Corn	Wheat
Barber	Barber	Anderson	Johnston	Anderson	Decatur	Decatur	Decatur
Rosehill1	Candor	Johnston	Florence	Johnston	Sumter	Sumter	Sumter
Rosehill2	Cofield	Florence	Hamer	Florence	Mitchell	Mitchell	Mitchell
Creswell	Laurinburg	Hamer	Lynchburg	Hamer	Bulloch	Bulloch	Bulloch
Dunn	Rosehill1	Lynchburg	Bennettsville		Burke	Burke	Burke
Elizabeth	Rosehill2	Bennettsville	Lake City		Laurens	Laurens	Laurens
City	Monroe1	Lake City	Latta		Washton	Washton	Washton
Greenville1	Monroe2	Latta	Little Rock		Calhoun	Chatuga	Chatuga
Greenville2	Nashville	Little Rock	Vance		Southwest	Scoular	Mobile
Kinston	Roaring River	Vance	Allendale		Southeast	Southwest	Scoular
Lumberton	Statesville	Allendale	Manning		Central	Southeast	Southwest
Mount Ulla	Chadbourn	Manning	Alcolu		North	Central	Southeast
Norwood	Creswell	Alcolu	Orangeburg			North	Central
Pantego	Dunn	Orangeburg	Orangeburg2				North
Williamston	Greenville1	Orangeburg2	Monetta				
Cofield	Greenville2	Estill	Sumter				
Fayetteville	Kinston	Kershaw	Estill				
	Lumberton	Charleston	Cassatt				
	Norwood		Charleston				
	Pantego		Kingstree				
	Williamston						