

(Lecture notes for the Week 4 Second Session, Wednesday, 3/5/14)

Introductory Pricing/Marketing Workshop for Grains, On-Line

Sponsored by MSUE and Michigan CORN

Road Trip to Tour CME GROUP

- Contact Dennis Stein if Interested (steind@anr.msu.edu)

Where Have We Been

- Futures, Basis
 - What are they
 - What do they tell us
- Mechanics of the various pricing tools
- Futures and Basis tell us which Pricing Tool to Use

Putting It Together

- What is the market telling us now, Corn, SB's, New, Old
 - Fundamentals, Technicals, i.e., Futures Up, Futures Down
 - Should we store or not
 - Which tools should we use
 - Our Pricing Plan, Costs of Production, Financial Situation
 - Don't repeat errors

Pricing Management/Marketing Plan

Pricing Management/ Marketing Plan

Jim Hilker

MICHIGAN STATE
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EXTENSION



Aims of Pricing Management Module

- ❖ Improve your skills for developing and implementing marketing plans
- ❖ Discuss the characteristics of corn and soybean markets
- ❖ Review selected pricing tools
- ❖ Consider an example marketing plan

What's The Time Frame For Your Marketing Plan

- ❖ You can price after harvest if you are willing to store (up to 10 months)
- ❖ Today you can price prior to harvest for sale at harvest or sale at post harvest for 2014, 2015, or 2016
- ❖ Suggests a planning horizon from of at least 18 months prior to harvest (30 months Preferable) to 6-10 months post harvest
- ❖ Reasonably 40-48 months for each crop year
- ❖ May have 2, 3 or even 4 years at once

Key Questions About Your Goals

- ❖ How much risk are you willing to bear?
 - Based upon your net worth / equity in the farm business
 - Comfort zone
- ❖ How much risk are you willing to take to capitalize on potential opportunities?
- ❖ How do you feel about using your equity vs. using risk reducing tools to deal with risk?

Structuring Your Plan

- ❖ Define your goals
- ❖ Quantify the financial exposure you are willing to assume
- ❖ Describe the size of the crop that will be available for you to market:
 - ❖ Most likely potential bushels
 - ❖ Yield / Product Quality risk faced
 - ❖ Potential role of crop insurance to backstop pre-harvest pricing

How Much do I have to sell?

Describe how much you will have to market?

- Planned acres
- Yield probability charts
- Prevented planting risk
- Harvest quality risk

What is your History?

		From Accounting				
<u>Corn</u>		Total	Total	Weighted	Planted	Actual
		<u>Dollars</u>	<u>Production</u>	<u>Paid Price</u>	<u>Acres</u>	<u>Yield/Ac</u>
2008 Crop	\$					
2007 Crop	\$					
2006 Crop	\$					
2005 Crop	\$					
2004 Crop	\$					
5 yr Average	\$					

	Corn	Soys	Wheat
Acres	200.0	200.0	50.0
Yield	138.2	39.3	64.2
	Expected Bushels		
100%	27,640	7,860	3,210
90%	24,876	7,074	2,889
80%	22,112	6,288	2,568
70%	19,348	5,502	2,247
60%	16,584	4,716	1,926
50%	13,820	3,930	1,605
40%	11,056	3,144	1,284
30%	8,292	2,358	963
30%	8,292	2,358	963
10%	2,764	786	321
5%	1,382	393	161

Structuring Your Plan (continued)

- ❖ Break the time period over which you can price into several periods
 - ❖ Prior to March 15
 - ❖ Late spring / early summer
 - ❖ Harvest
 - ❖ Jan-March
- ❖ Calculate targets for each period:
 - ❖ Bushels to sell
 - ❖ Target price
- ❖ Describe how you will change your targets given opportunities and risks that may arise

What Kind of Market Do You Face?

❖ Degree of Volatility

❖ Patterns

◆ New Crop/s

- Seasonal
- Across years

❖ Old Crop

- Seasonal
- Across years

- **“If you think you can out guess the commodity futures market -- you are nuts!”**

- Quote from a marketing consultant

- **If you can out guess the market why bother to grow it?**

- R. Betz

Feasibility of Pricing Goals

<u>Pricing Goal</u>	Your Skill in the Summarizing Market Information		
	Market is <u>Efficient</u>	<u>Market is In-Efficient</u>	
		Only when big shocks occur	Nearly always
Price Enhancement	Not feasible	Sometimes feasible	Feasible
Risk Control	Feasible	Feasible	Feasible

Set Price and Timing Goals

- ❖ Use your “costs of production” in setting Revenue Requirement goals:
 - Total Economic Costs
 - Maintain Net worth
 - Cash Flow Requirements
- ❖ Equity available to risk
- ❖ Drive how much you can “afford to gamble”

“Break Even Prices Needed”

<u>Medium Debt Farm</u>	CORN	SOYS
35. Total Economic Cost / Bu	\$2.75	\$6.56
51. Maintain Net Worth per Bu	\$2.21	\$4.97
61. Meet Cash Flow Demands per Bu	\$2.43	\$5.62
<u>Low Debt Farm</u>	CORN	SOYS
35. Total Economic Cost / Bu	\$2.70	\$6.41
51. Maintain Net Worth per Bu	\$2.10	\$4.64
61. Meet Cash Flow Demands per Bu	\$2.16	\$4.80
<u>High Debt Farm</u>	CORN	SOYS
35. Total Economic Cost / Bu	\$2.81	\$6.75
51. Maintain Net Worth per Bu	\$2.33	\$5.31
61. Meet Cash Flow Demands per Bu	\$2.41	\$5.55

Make Sure You Have These Values

What is your “Cost of Production”?

Roger Betz

	<u>CornGrain</u>	<u>SoyBean</u>
35. Total Economic Cost / Bu/Ton	\$5.11	\$11.99
51. Maintain Net Worth per Bu/Ton	\$4.58	\$10.17
61. Meet Cash Flow Demands per Bu/Ton	\$4.42	\$9.62

MICHIGAN STATE UNIVERSITY | Farm Information Resource Management



Home

- Events
- Affordable Care Act (ACA)
- Agricultural Taxes
- Annies Project
- Budgets, Cost of Production and Decision Making Tools
- Crop Insurance
- Market Outlook & Probabilistic Price Forecasts for Grain & Livestock
- Farm Business Analysis and Benchmarking
- Farm Business Succession, Estate Planning & Business Structures

Home

FIRM MISSION STATEMENT:

Our mission is to assist farmers, agriculturally-related businesses, industries, families, and individuals improve their lives and achieve their goals through an educational process that applies management, production and economic knowledge to critical issues, needs, and opportunities.

VISION STATEMENT:

We strive to integrate management skills and principals into the daily operations of farms and firms along with the programs provided by MSU Extension. To be an important part and a valued information resource providing tools vital to the continued growth of Michigan Agriculture as a leading industry in the state.

Flagship Programs

[FARM & BUSINESS TRANSITION/SUCCESSION PLANNING](#)

[SUPPLYING BUSINESS MANAGEMENT INFORMATION](#) – The FIRM team conducts several educational programs related to business management. One such program is the [TelFarm](#) project. This

Events

No events found

Hot Topics

- [Changes to the Affordable Care Act, Employers with 50 - 100 FTE's May have another a year for compliance \(pdf\)](#).
- Further information and formal analysis of final regulations will be forth coming.
- [MSU Agriculture Employee Handbook Template now available \(docx\)](#)

<http://firm.msue.msu.edu/>

Budgets, Cost of Production and Decision Making Tools

Knowing how an industry is performing is key to understanding how one's own business is performing. To make these comparisons, the FIRM team plays a major role in collecting and analyzing economic data from agricultural businesses. This data is summarized and published in reports, many on annual basis. Examples of Extension/research reports include the economic summaries of the major farming types in Michigan (e.g., dairy, cash crops, fruit, swine, and cattle feeding), trends in farmland values and leasing rates, current custom-hire rates, enterprise budgets, and other timely economic reports.

[Custom Machine Work Costs](#) • [Crops](#) • [Fruits & Vegetables](#) • [Livestock](#) • [Business Analysis Handbooks](#) • [Misc](#)

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2014 Estimated Crop Budget

Template by: Dennis Stein, Extension Educator, District Farm Business Management

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phone: (989) 672-3870 ♦ email: steind@anr.msu.edu ♦ webpage: <http://www.msu.edu/user/steind>

Does the Market Care?

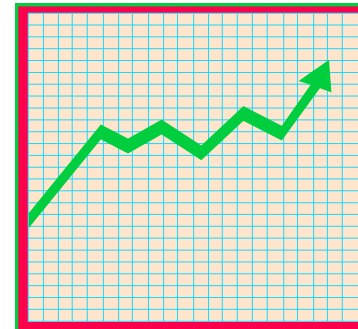
- Yes or No?
- Over Time the Market Will Be “Break Even”!
- It is always in a “State of Flux”

Set Price and Timing Goals

- ❖ Look at historical patterns to assess the current situation for setting both price and time targets and triggers
- ❖ Use commodity Supply-Demand Balance Sheets in combination with futures and options
- ❖ Use charts -- particularly for setting short term and daily price targets

What “Tools” Can I Use to Provide Information In Setting Pricing Targets:

- ❖ Price Potential
 - Near term
 - Longer term
- ❖ Risk and Opportunity
- ❖ Use of price history



Behavioral and Psychological Factors:

Barriers to Rational Decision Making

Reference Price Anchoring

The tendency to fix a price which serves as an anchor to measure gains and losses against. (*recall our natural bias - risk averse towards gains, risk seeking towards losses*)

Examples:

- **Grain quality discounts versus specialty grain premiums**
- **Advisory firm price projections**
- **Past prices - 1995-96**
- **Guaranteed Minimum Price Contracts**

Behavioral and Psychological Factors:

Barriers to Rational Decision Making

Reference Price Anchoring

Overcoming Reference Price Anchors:

- Pay equal recognition to lower as well as higher price potential.**
- Utilize objective information sources.**
- Consider the markets assessment of price by using options derived probabilities.**
- Write down the factors influencing initial price objectives.**
- Evaluate how your thinking might change if the reference price changed.**

Behavioral and Psychological Factors: Barriers to Rational Decision Making

Escalation - Too Much Invested to Quit

A behavioral trap in which an individual enters a transaction hoping for a favorable outcome but after circumstances change to unfavorable, finds it difficult to liquidate the position.

Examples:

- Hedge to Arrive Crisis of 1996**
- Rolling basis contracts**
- Storing grain**



Behavioral and Psychological Factors:

Barriers to Rational Decision Making

Escalation - Too Much Invested to Quit

Overcoming Escalation:

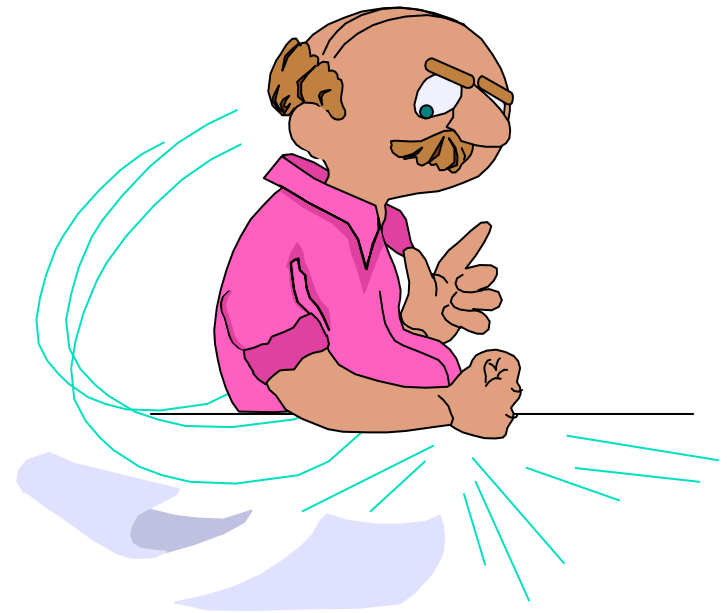
- Have someone not involved in the initial decision make the final pricing decision.**
- Always consider the potential for extreme events.**
- Write down or announce to your partner in advance, exposure limits which trigger immediate action.**
- Seek out non conforming advice. Avoid asking leading questions.**
- Do not make a marketing position public or visible to others except for trusted partners.**

Marketing plan worksheet

- ❖ Set your preliminary targets for each period:
 - Price triggers
 - Time triggers
 - Is scaling up warranted?
- ❖ How will the plan change in response to particular (e.g., scaling up):
 - Opportunities
 - Risk
- ❖ Are you likely to need to restructure debt given price prospects?

Who is responsible for developing a Marketing Plan and implementing it?

You are!

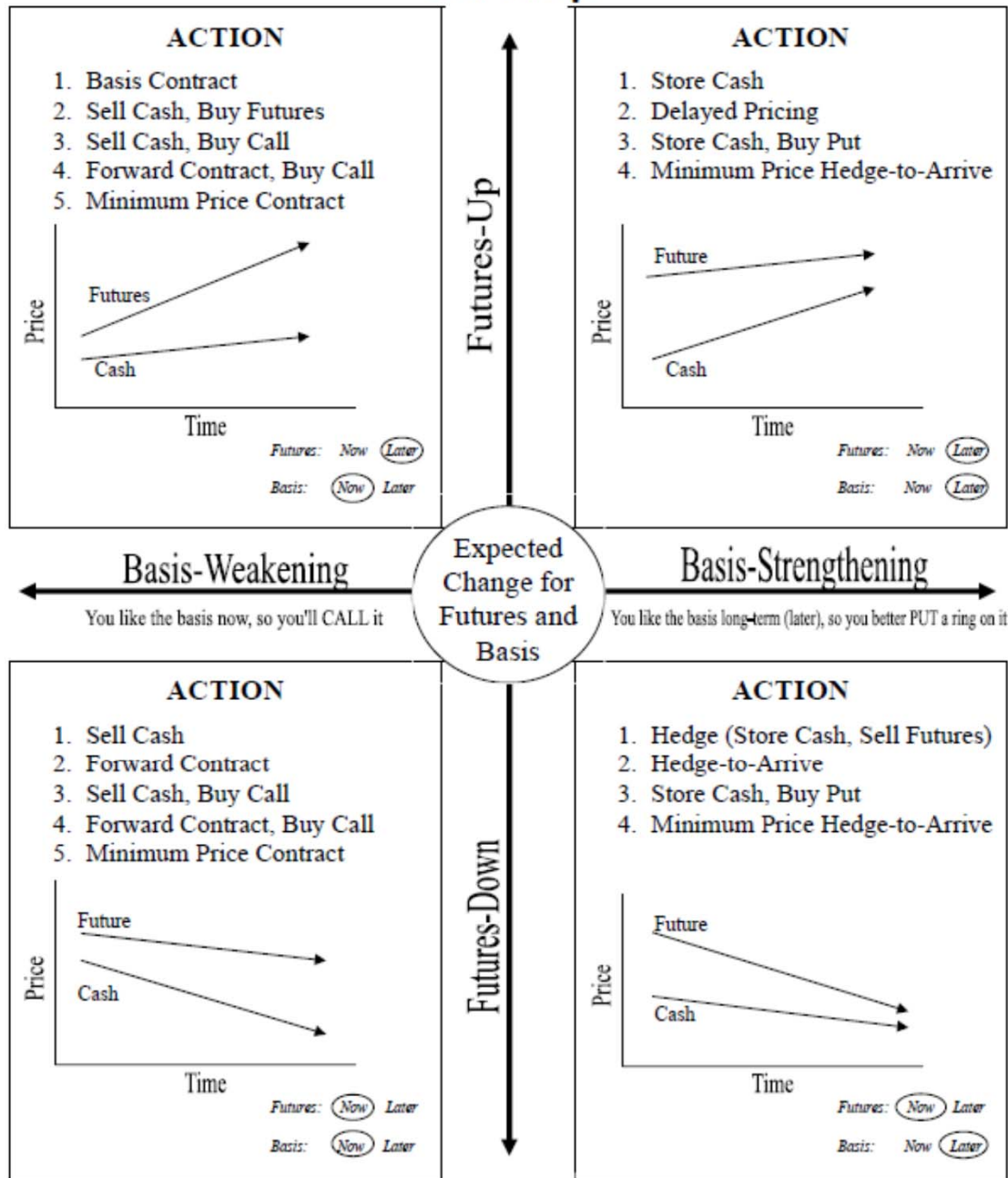


- ❖ Write it down.
- ❖ Tell someone else your plan (spouse, business partner).
- ❖ Post your plan (in your home or office) to remind you to follow it.
- ❖ Stick with your plan.

Corn

Pricing Decision Chart for Cash Product Sellers

Old Crop





















**TABLE 1
SUPPLY/DEMAND BALANCE SHEET FOR CORN**

	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	Est. 2012- 2013	Proj. 2013- 2014	Hilker 2014- 2015	USDA 2014- 2015
(million acres)														
Acres Planted	78.9	78.6	80.9	81.8	78.3	93.5	86.0	86.4	88.2	91.9	97.2	95.4	93.0	92.0
Acres Harvested	69.3	70.9	73.6	75.1	70.6	86.5	78.6	79.5	81.4	84.0	87.4	87.7	85.3	84.6
Yield/Bushels	129.3	142.2	160.4	148	149.1	150.7	153.9	164.7	152.8	147.2	123.4	158.8	159.2	165.3
(million bushels)														
Beginning Stocks	1596	1087	958	2114	1967	1304	1624	1673	1708	1128	989	821	1481	1481
Production	8967	10089	11807	11114	10531	13038	12092	13092	12447	12360	10780	13925	13590	13985
Imports	14	14	11	9	12	20	14	8	28	29	162	30	15	25
Total Supply	10578	11190	12776	13237	12510	14362	13729	14774	14182	13517	11932	14776	15086	15491
Use:														
Feed & Residual	5563	5798	6158	6155	5591	5913	5182	5125	4795	4557	4335	5300	5300	5400
Food, Seed & Ind	2340	2537	2686	2981	3490	4387	5025	5961	6426	6428	6044	6400	6475	6430
Ethanol for fuel	996	1168	1323	1603	2119	3049	3709	4591	5019	5000	4648	5000	5025	5000
Total Domestic	7903	8335	8844	9136	9081	10300	10207	11086	11221	10985	10379	11700	11775	11830
Exports	1588	1897	1818	2134	2125	2437	1849	1980	1834	1543	731	1600	1675	1550
Total Use	9491	10232	10662	11270	11206	12737	12056	13066	13055	12528	11110	13300	13450	13380
Ending Stocks	1087	958	2114	1967	1304	1624	1673	1708	1128	989	821	1481	1636	2111
Ending Stocks, %of Use	11.5	9.4	19.8	17.5	11.6	12.8	13.9	13.1	8.6	7.9	7.4	11.1	12.2	15.8
U.S. Loan Rate	\$1.98	\$1.98	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95
U.S. Season Ave Farm Price, \$/Bu.	\$2.32	\$2.42	\$2.06	\$2.00	\$3.04	\$4.20	\$4.06	\$3.55	\$5.18	\$6.22	\$6.89	\$4.50	\$3.85	\$3.90

Source: USDA/WASDE and Jim Hilker. (2 - 21 - 14)

Corn Futures 3/5/14

@C - CORN - CBOT

Month	Last	Change	Open	High	Low	Close	Time	More
Mar 14	474'6	-1'4	475'0	481'0	472'2	475'2s	01:30P	 
May 14	481'4	-2'2	483'0	488'0	479'2	482'0s	01:30P	 
Jul 14	486'0	-2'0	486'6	492'2	483'4	486'2s	01:30P	 
Sep 14	482'4	-2'4	484'0	486'0	479'4	482'6s	01:30P	 
Dec 14	483'2	-3'2	485'4	486'0	480'4	483'2s	01:30P	 
Mar 15	489'0	-3'6	491'0	491'6	486'6	489'2s	01:30P	 
May 15	493'4	-3'6	497'4	497'4	492'4	495'0s	01:30P	 
Jul 15	496'4	-3'0	498'4	499'6	494'6	497'0s	01:30P	 
Sep 15	479'2	-3'0	481'0	481'0	479'2	481'4s	01:30P	 

July 2014 Corn Futures



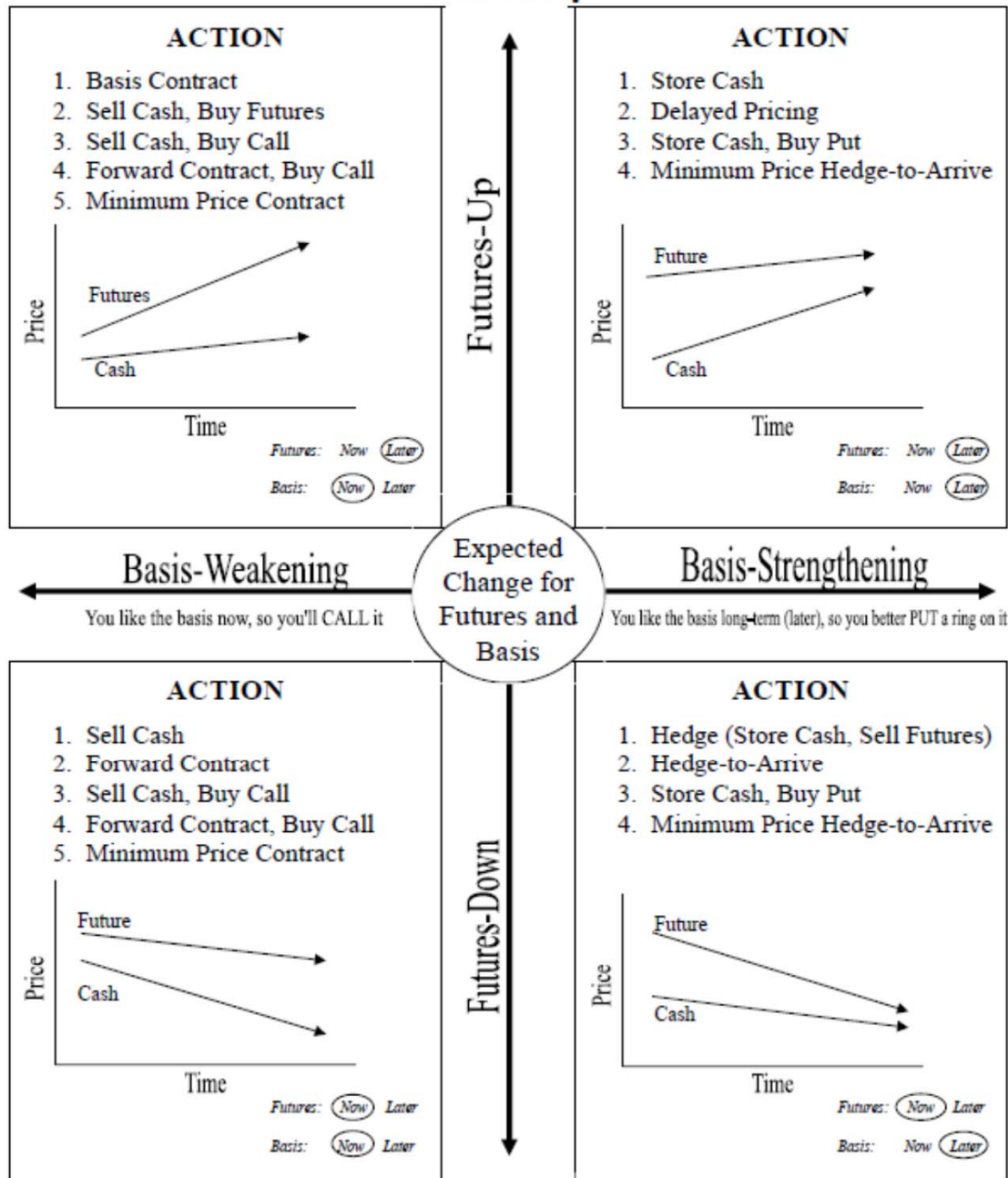
July 2014 Corn Futures

**Table 1. Probability Futures Price @
Maturity Will Be Less Than Stated Value**

<u>Probability</u>	<u>Price</u>
10%	\$3.93
20%	\$4.15
25%	\$4.24
30%	\$4.33
40%	\$4.48
50%	\$4.62
60%	\$4.78
70%	\$4.94
75%	\$5.04
80%	\$5.15
90%	\$5.44

Pricing Decision Chart for Cash Product Sellers

Old Crop



Use of Tools

- Buy a put or sell futures(hedge), can come after initial store or wait to price decision
- Buy a call or buy futures, can come after initial sale or forward contract decision

Date: 3/5/14

		Forward Pricing Alternatives for			Corn		(crop) in Storage			
Date	Cash Market	Hedge/Hedge To Arrive		Put Options (Minimum Price HTA)			Call Options (Minimum Price)			
	<i>Current Price</i>	4.55	July	4.86	July	4.60	4.80	July	4.90	4.90
2/28/2014	Forward Contract		Futures Month	Sell	Futures Month	Strike Price	Strike Price	Futures Month	Strike Price	Strike Price
	Price for:		Less:					Cash Sale	4.55	
	June 15, 2014	4.78	Expected Basis	-0.05	Expected Basis	-0.05	-0.05	Forward Contract		4.78
	Less Storage Cost	-0.08	Storage Costs	-0.08	Storage Costs	-0.08	-0.08	Storage Costs	N/A	-0.08
	<i>Net Price From</i>									
	Forward Contract	4.70	Brokerage Costs	-0.01	Brokerage Costs	-0.01	-0.01	Brokerage Costs	-0.01	-0.01
	Basis Contract				Options Premium	-0.15	-0.24	Options Premium	-0.26	-0.26
	Relative to:		Equals Net Price		Equals Minimum					
	July	-0.31	Expected From		Selling Price			Equals Minimum		
			Hedge	4.72	Expected	4.31	4.42	Selling Price	4.28	4.43



















**TABLE 1
SUPPLY/DEMAND BALANCE SHEET FOR CORN**

	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	Est. 2012- 2013	Proj. 2013- 2014	Hilker 2014- 2015	USDA 2014- 2015
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Ending Stocks, %of Use	11.5	9.4	19.8	17.5	11.6	12.8	13.9	13.1	8.6	7.9	7.4	11.1	12.2	15.8
U.S. Loan Rate	\$1.98	\$1.98	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95
U.S. Season Ave Farm Price, \$/Bu.	\$2.32	\$2.42	\$2.06	\$2.00	\$3.04	\$4.20	\$4.06	\$3.55	\$5.18	\$6.22	\$6.89	\$4.50	\$3.85	\$3.90

Source: USDA/WASDE and Jim Hilker. (2 - 21 - 14)

Corn Futures 3/5/14

@C - CORN - CBOT

Month	Last	Change	Open	High	Low	Close	Time	More
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Mar 15	489'0	-3'6	491'0	491'6	486'6	489'2s	01:30P	 
May 15	493'4	-3'6	497'4	497'4	492'4	495'0s	01:30P	 
Jul 15	496'4	-3'0	498'4	499'6	494'6	497'0s	01:30P	 
Sep 15	479'2	-3'0	481'0	481'0	479'2	481'4s	01:30P	 

Dec 2014 Corn Futures



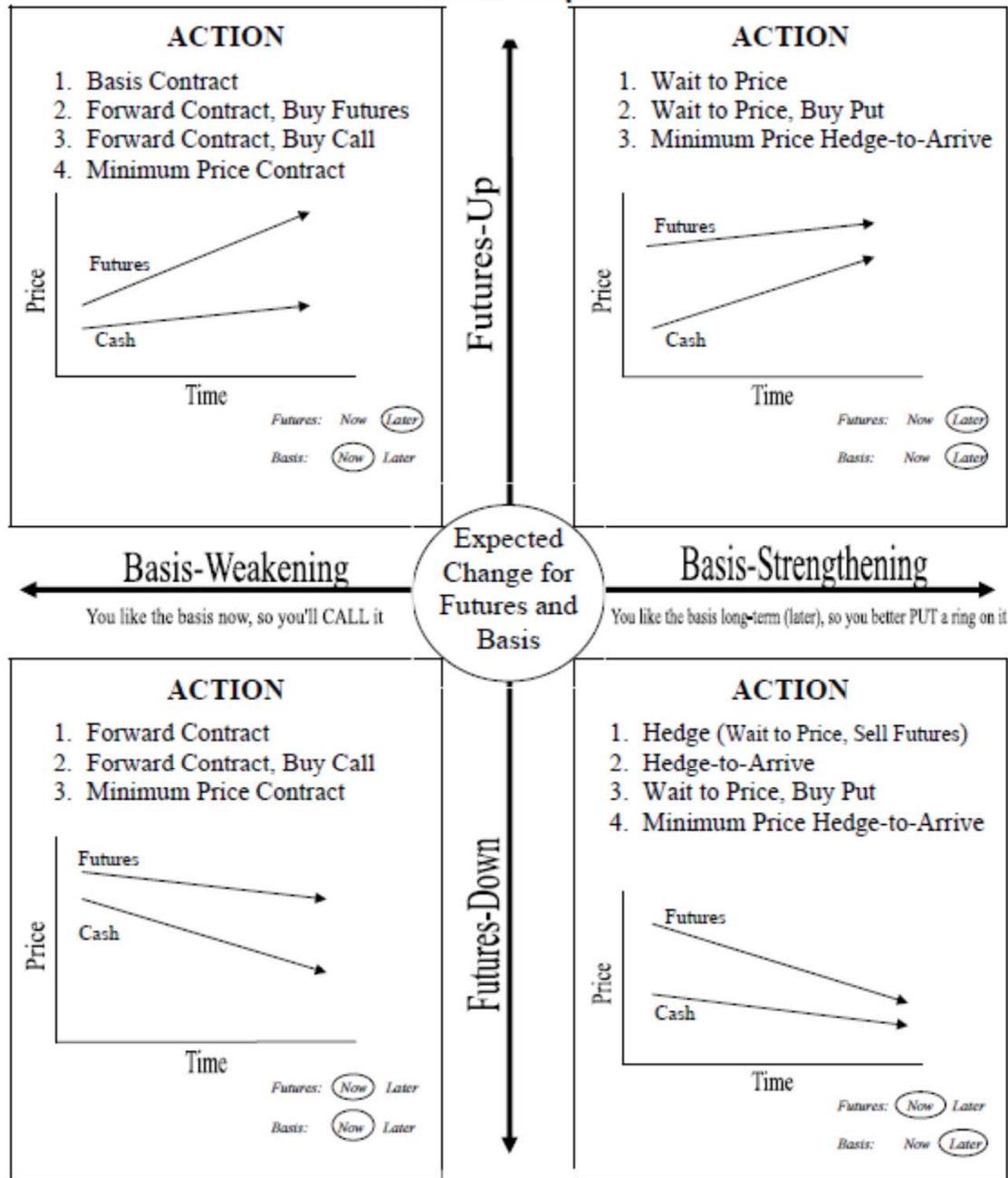
Dec 2014 Corn Futures

**Table 1. Probability Futures Price @
Maturity Will Be Less Than Stated Value**

<u>Probability</u>	<u>Price</u>
10%	\$3.45
20%	\$3.78
25%	\$3.92
30%	\$4.04
40%	\$4.28
50%	\$4.51
60%	\$4.75
70%	\$5.03
75%	\$5.19
80%	\$5.37
90%	\$5.88

Pricing Decision Chart for Cash Product Sellers

"New Crop"



Date: 3/5/14

		Forward Pricing Alternatives for New Crop				Corn				
Date	Cash Market	Hedge/Hedge To Arrive		Put Options (Minimum Price HTA)			Call Options (Minimum Price)			
	Production Costs	<u>4.50</u>	December	<u>4.83</u>	December	<u>4.60</u>	<u>4.80</u>	December	<u>4.90</u>	<u>5.00</u>
12/6/2013	Forward Contract		Futures Month	Sell	Futures Month	Strike Price	Strike Price	Futures Month	Strike Price	Strike Price
	Price for:		Less:							
	October 15, 2014	<u>4.58</u>	Expected Basis	<u>-0.20</u>	Expected Basis	<u>-0.20</u>	<u>-0.20</u>	Forward Contract	<u>4.58</u>	<u>4.58</u>
	Basis Contract		Brokerage Costs	<u>-0.01</u>	Brokerage Costs	<u>-0.01</u>	<u>-0.01</u>	Brokerage Costs	<u>-0.01</u>	<u>-0.01</u>
	Relative to:									
	December	<u>-0.25</u>			Options Premium	<u>-0.30</u>	<u>-0.40</u>	Options Premium	<u>-0.39</u>	<u>-0.35</u>
			Equals Net Price		Equals Minimum					
			Expected From		Selling Price			Equals Minimum		
			Hedge	<u>4.62</u>	Expected	<u>4.09</u>	<u>4.19</u>	Selling Price	<u>4.18</u>	<u>4.22</u>

Cost of Production

Roger Betz

	<u>CornGrain</u>	<u>SoyBean</u>
35. Total Economic Cost / Bu/Ton	\$5.11	\$11.99
51. Maintain Net Worth per Bu/Ton	\$4.58	\$10.17
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Soybeans






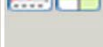
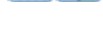


**TABLE 3
SUPPLY/DEMAND BALANCE SHEET FOR SOYBEANS**

	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	Est. 2012- 2013	Proj. 2013- 2014	Hilker 2014- 2015	USDA 2014- 2015
(Million Acres)														
Acres Planted	74	73.4	75.2	72	75.5	64.7	75.7	77.5	77.4	75.0	77.2	76.5	78.5	79.5
Acres Harvested	72.5	72.3	74.0	71.3	74.6	64.1	74.7	76.4	76.6	73.8	76.2	75.9	77.5	78.5
Yield/Bushels	38.0	33.9	42.2	43.0	42.9	41.7	39.7	44.0	43.5	41.9	39.8	43.3	44.3	45.2
(Million Bushels)														
Beginning Stocks	208	178	112	256	449	574	205	138	151	215	169	141	150	150
Production	2756	2454	3124	3063	3197	2677	2967	3359	3329	3094	3034	3289	3434	3550
Imports	5	6	6	3	9	10	13	15	14	16	36	30	15	15
Total Supply	2969	2638	3242	3322	3656	3261	3185	3512	3495	3325	3239	3459	3599	3715
Use:														
Crushings	1615	1530	1696	1739	1808	1803	1662	1752	1648	1703	1689	1700	1710	1725
Exports	1045	885	1097	940	1116	1159	1279	1499	1501	1365	1320	1510	1545	1600
Seed	89	92	88	93	80	93	90	90	87	90	89	87	88	89
Residual	41	19	105	101	77	0	16	20	43	-2	1	12	22	16
Total Use	2791	2526	2986	2873	3081	3056	3047	3361	3280	3155	3099	3309	3365	3430
Ending Stocks	178	112	256	449	574	205	138	151	215	169	141	150	234	285
Ending Stocks, %of Use	6.4	4.4	8.6	15.6	18.6	6.7	4.5	4.5	6.5	5.4	4.5	4.5	7.0	8.3
U.S. Loan Rate	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
U.S. Season Ave Farm Price, \$/Bu.	\$5.53	\$7.34	\$5.74	\$5.66	\$6.43	\$10.10	\$9.97	\$9.59	\$11.30	\$12.50	\$14.40	\$12.70	\$9.60	\$9.65

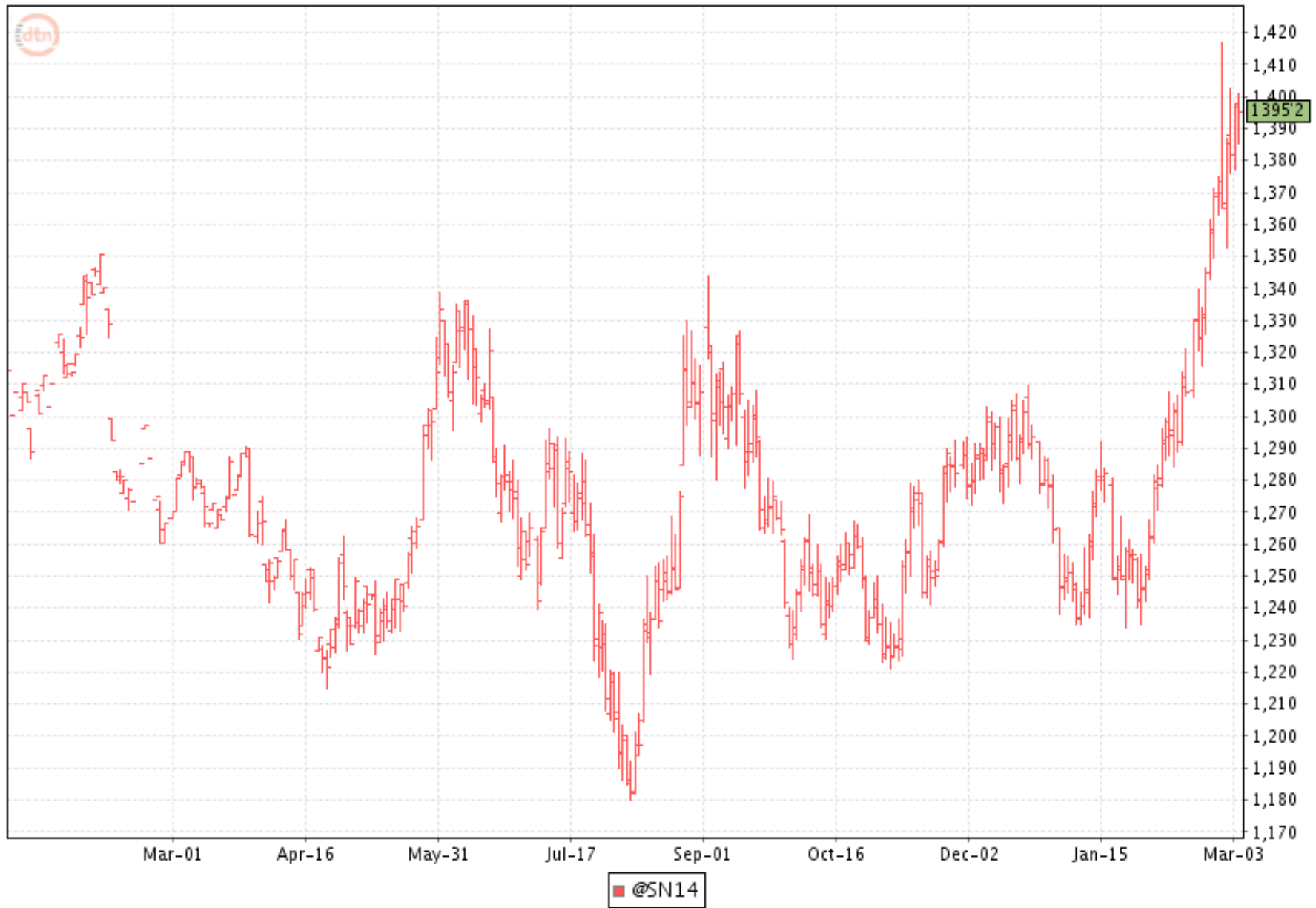
Source: USDA/WASDE and Jim Hilker. (2 - 21 - 14)

Soybean Futures 3/5/14

@S - SOYBEANS - CBOT

Month	Last	Change	Open	High	Low	Close	Time	More
Mar 14	1421'2	2'0	1421'4	1424'0	1407'0	1420'0s	01:31P	
May 14	1421'0	-2'4	1425'0	1426'4	1409'4	1420'4s	01:31P	
Jul 14	1395'6	-1'2	1398'0	1401'0	1385'4	1395'2s	01:31P	
Aug 14	1346'0	1'0	1346'2	1352'4	1338'4	1346'0s	01:31P	
Sep 14	1245'2	-3'0	1247'0	1250'0	1235'2	1244'6s	01:31P	
Nov 14	1180'2	-1'4	1180'0	1184'0	1171'0	1179'6s	01:31P	
Jan 15	1184'2	-1'2	1184'6	1186'4	1175'0	1183'6s	01:31P	
Mar 15	1186'6	-0'2	1187'0	1188'6	1178'2	1186'6s	01:31P	
May 15	1188'6	0'4	1188'0	1189'0	1180'4	1189'0s	01:31P	

July 2014 Soybean Futures



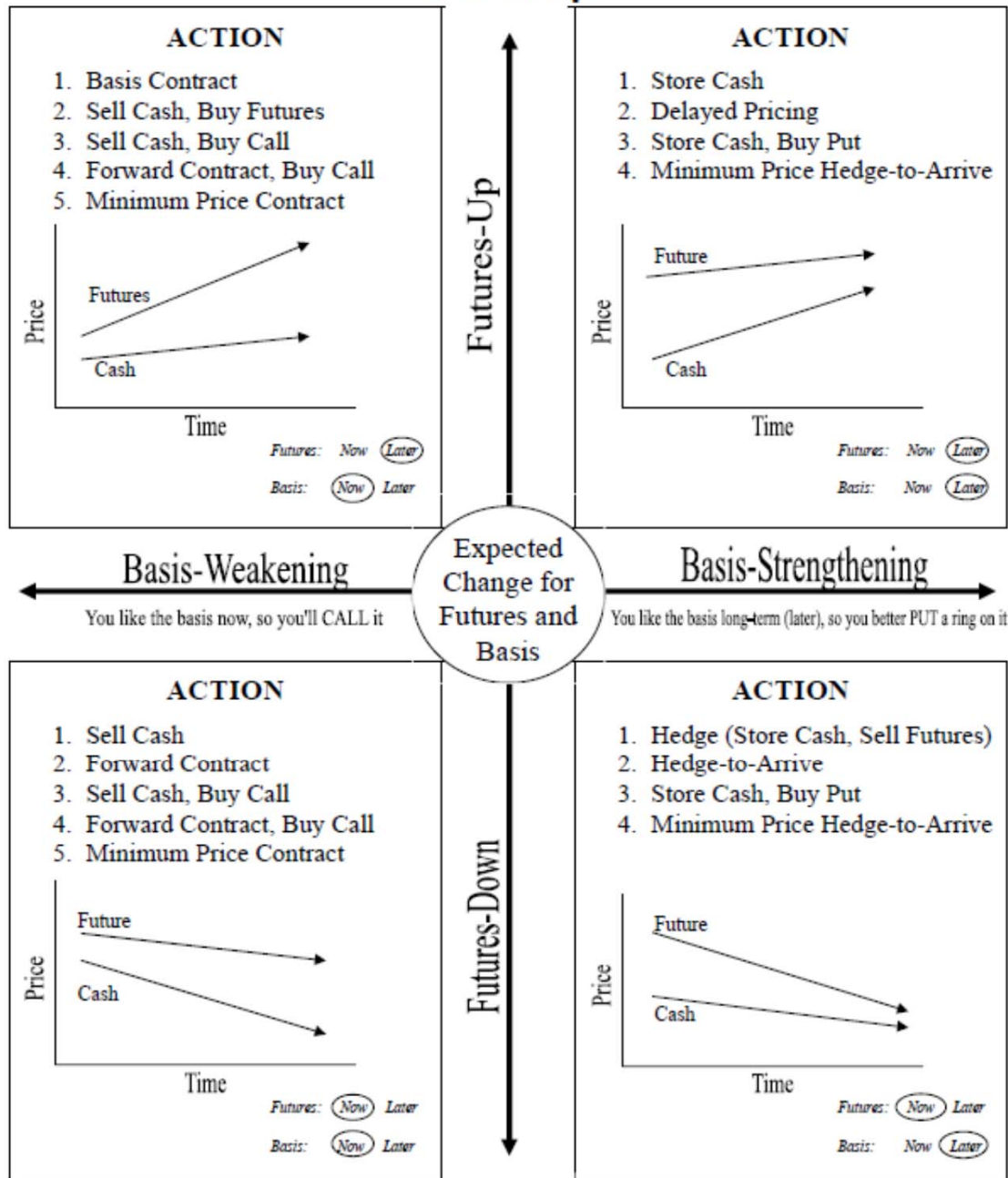
July 2014 Soybean Futures

**Table 1. Probability Futures Price @
Maturity Will Be Less Than Stated Value**

<u>Probability</u>	<u>Price</u>
10%	\$11.93
20%	\$12.47
25%	\$12.69
30%	\$12.89
40%	\$13.25
50%	\$13.59
60%	\$13.95
70%	\$14.34
75%	\$14.57
80%	\$14.81
90%	\$15.50

Pricing Decision Chart for Cash Product Sellers

Old Crop



Date: 3/5/14

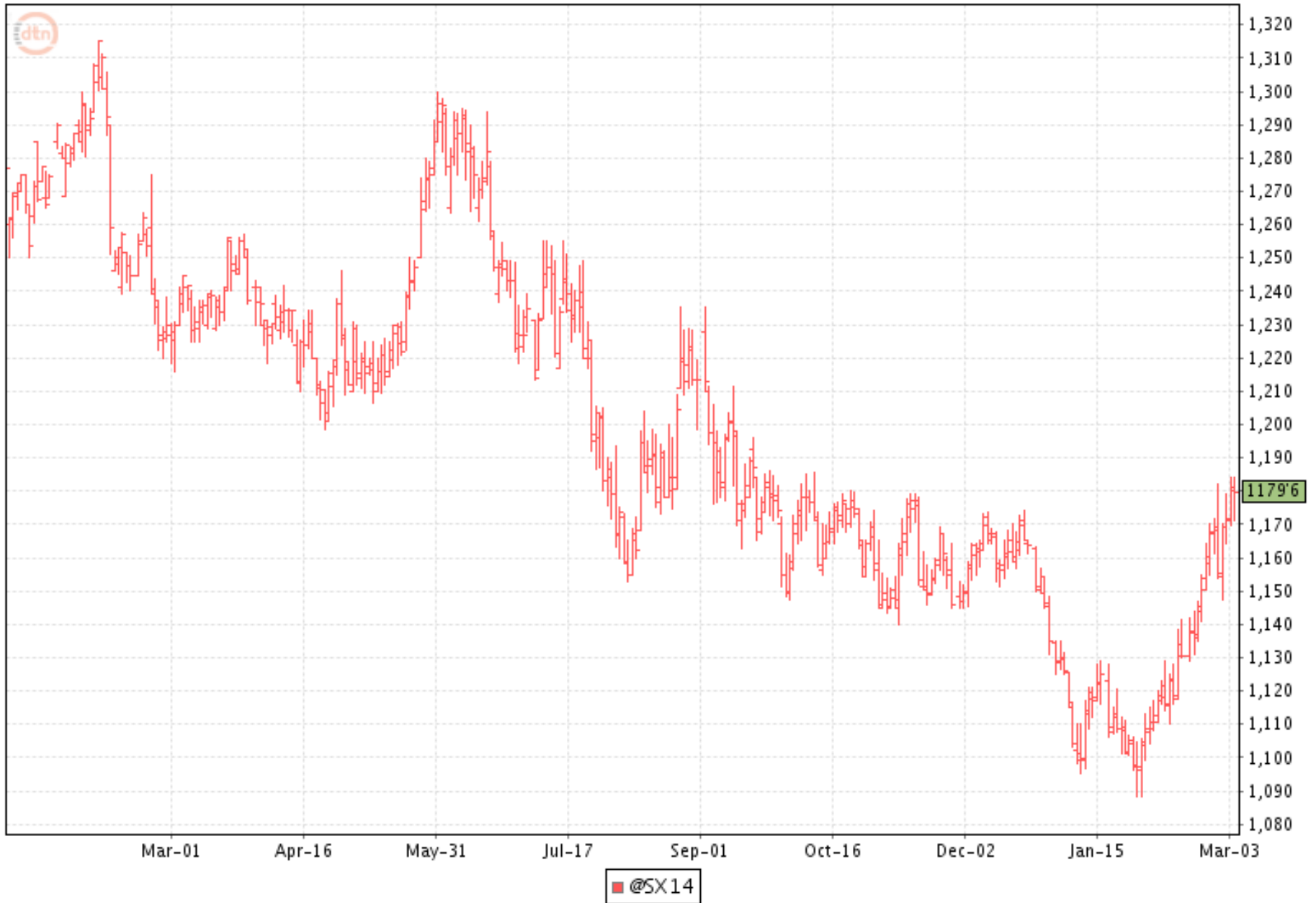
		Forward Pricing Alternatives for			Soybean		(crop) in Storage			
Date	Cash Market	Hedge/Hedge To Arrive			Put Options (Minimum Price HTA)			Call Options (Minimum Price)		
	<i>Current Price</i>	14.20	July	13.95	July	13.60	14.00	July	14.00	14.00
2/28/2014	Forward Contract		Futures Month	Sell	Futures Month	Strike Price	Strike Price	Futures Month	Strike Price	Strike Price
	Price for:		Less:					Cash Sale	14.20	
	June 15, 2014	13.95	Expected Basis	0.00	Expected Basis	0.00	0.00	Forward Contract		13.95
	Less Storage Cost	-0.20	Storage Costs	-0.20	Storage Costs	-0.20	-0.20	Storage Costs	N/A	-0.20
	<i>Net Price From</i>									
	Forward Contract	13.75	Brokerage Costs	-0.01	Brokerage Costs	-0.01	-0.01	Brokerage Costs	-0.01	-0.01
	Basis Contract				Options Premium	-0.39	-0.61	Options Premium	-0.56	-0.56
	Relative to:		Equals Net Price		Equals Minimum					
	July	0.25	Expected From		Selling Price			Equals Minimum		
			Hedge	13.74	Expected	13.00	13.18	Selling Price	13.63	13.18

**TABLE 3
SUPPLY/DEMAND BALANCE SHEET FOR SOYBEANS**

	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	Est. 2012- 2013	Proj. 2013- 2014	Hilker 2014- 2015	USDA 2014- 2015
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Total Use	2791	2526	2986	2873	3081	3056	3047	3361	3280	3155	3099	3309	3365	3430
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Ending Stocks, %of Use	6.4	4.4	8.6	15.6	18.6	6.7	4.5	4.5	6.5	5.4	4.5	4.5	7.0	8.3
U.S. Loan Rate	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
U.S. Season Ave Farm Price, \$/Bu.	\$5.53	\$7.34	\$5.74	\$5.66	\$6.43	\$10.10	\$9.97	\$9.59	\$11.30	\$12.50	\$14.40	\$12.70	\$9.60	\$9.65

Source: USDA/WASDE and Jim Hilker. (2 - 21 - 14)

Nov 2014 Soybean Futures



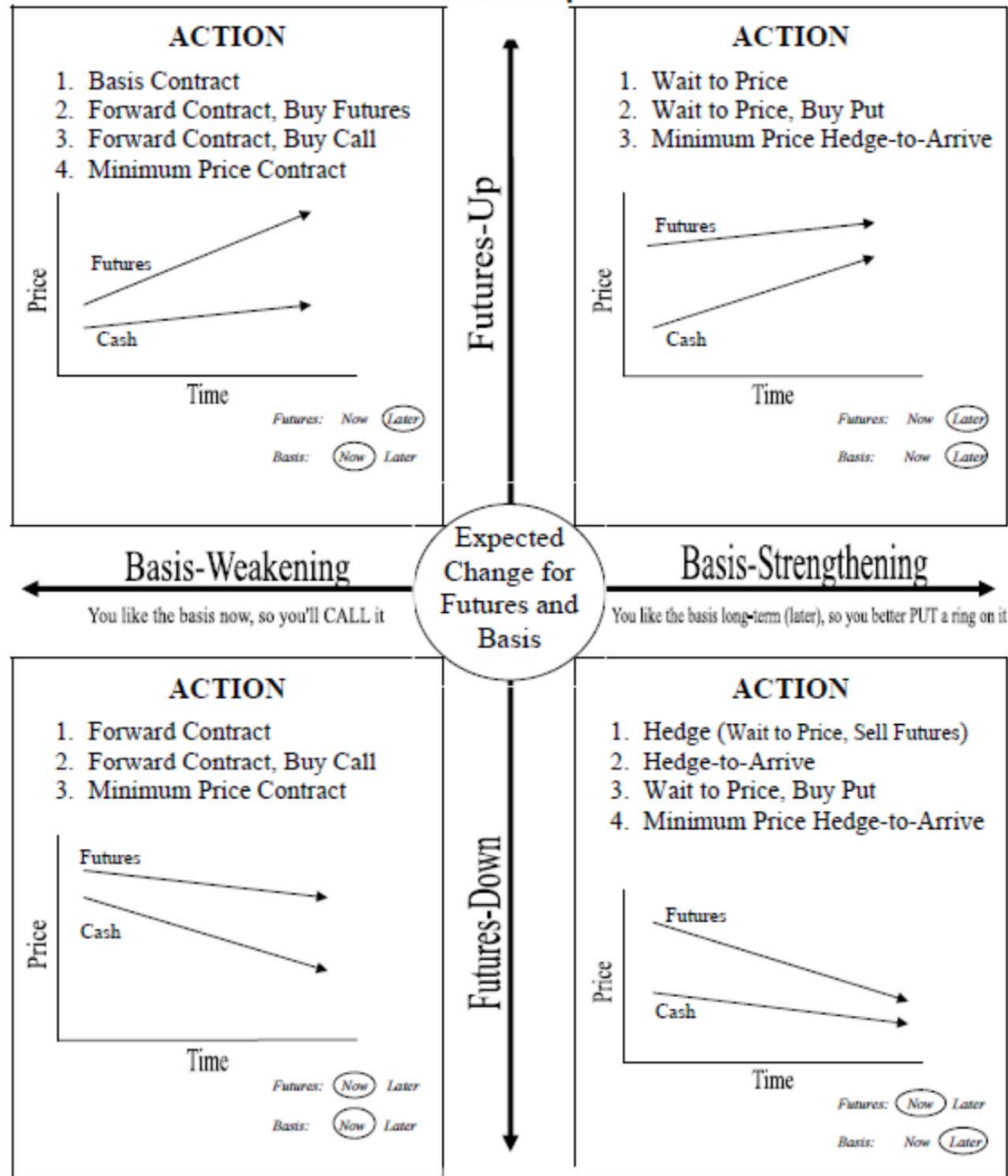
Nov 2014 Soybean Futures

**Table 1. Probability Futures Price @
Maturity Will Be Less Than Stated Value**

<u>Probability</u>	<u>Price</u>
10%	\$9.67
20%	\$10.25
25%	\$10.48
30%	\$10.69
40%	\$11.08
50%	\$11.45
60%	\$11.84
70%	\$12.26
75%	\$12.52
80%	\$12.79
90%	\$13.55

Pricing Decision Chart for Cash Product Sellers

"New Crop"



		Forward Pricing Alternatives for New Crop				Soybeans				
Date	Cash Market	Hedge/Hedge To Arrive		Put Options (Minimum Price HTA)			Call Options (Minimum Price)			
	Production Costs	<u>10.50</u>	November	<u>11.80</u>	November	<u>11.60</u>	<u>11.80</u>	November	<u>11.80</u>	<u>12.00</u>
3/5/2013	Forward Contract		Futures Month	Sell	Futures Month	Strike Price	Strike Price	Futures Month	Strike Price	Strike Price
	Price for:		Less:							
	October 15, 2014	<u>11.30</u>	Expected Basis	<u>-0.45</u>	Expected Basis	<u>-0.45</u>	<u>-0.45</u>	Forward Contract	<u>11.30</u>	<u>11.30</u>
	Basis Contract		Brokerage Costs	<u>-0.01</u>	Brokerage Costs	<u>-0.01</u>	<u>-0.01</u>	Brokerage Costs	<u>-0.01</u>	<u>-0.01</u>
	Relative to:									
	November	<u>-0.50</u>			Options Premium	<u>-0.53</u>	<u>-0.64</u>	Options Premium	<u>-0.63</u>	<u>-0.55</u>
			Equals Net Price		Equals Minimum					
			Expected From		Selling Price			Equals Minimum		
			Hedge	<u>11.34</u>	Expected	<u>10.61</u>	<u>10.70</u>	Selling Price	<u>10.66</u>	<u>10.74</u>

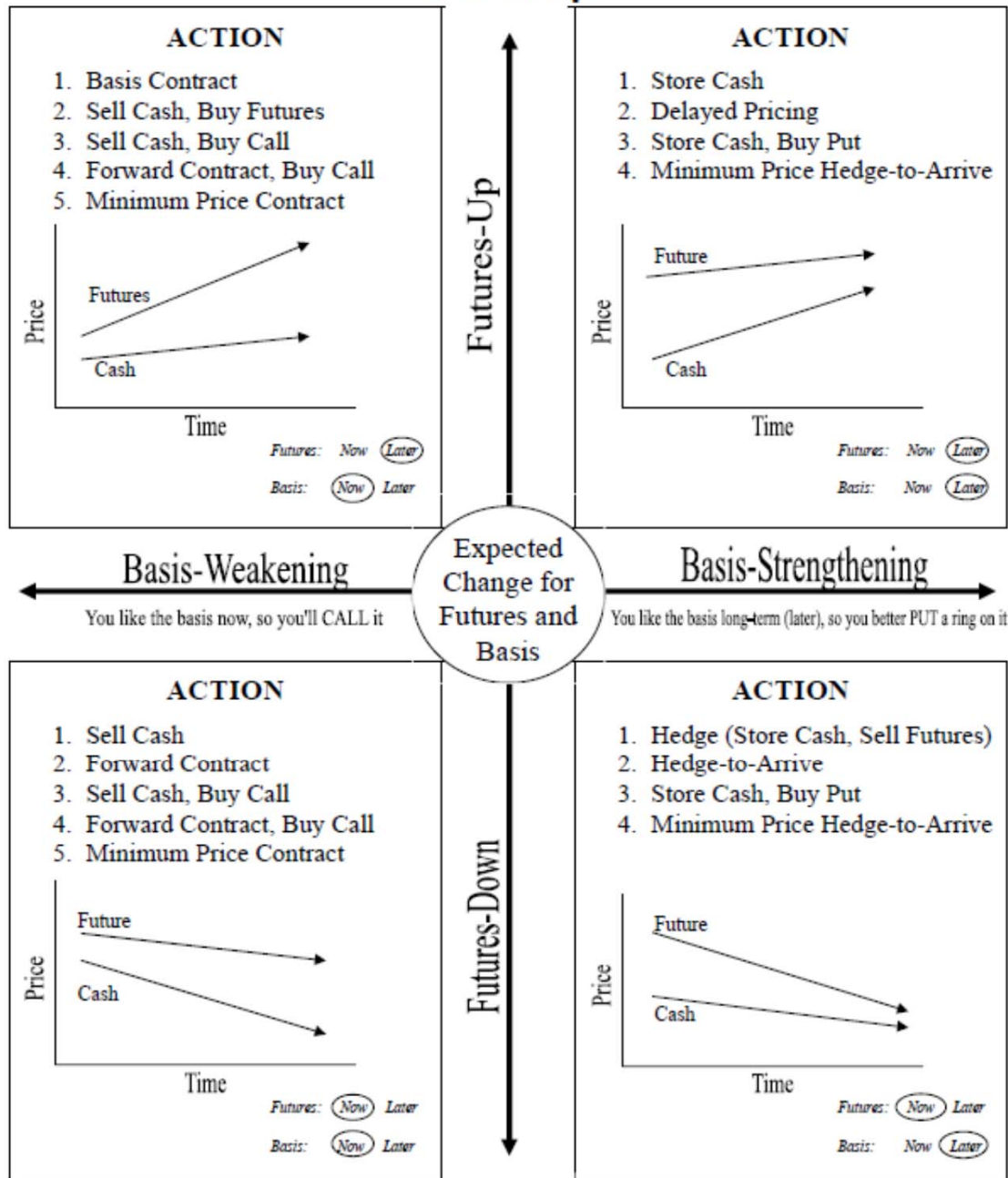
Cost of Production

Roger Betz

	<u>CornGrain</u>	<u>SoyBean</u>
35. Total Economic Cost / Bu/Ton	\$5.11	\$11.99
51. Maintain Net Worth per Bu/Ton	\$4.58	\$10.17
61. Meet Cash Flow Demands per Bu/Ton	\$4.42	\$9.62

Pricing Decision Chart for Cash Product Sellers

Old Crop



Use of Tools

- **Buy a put or sell futures(hedge), can come after initial store or wait to price decision**
- **Buy a call or buy futures, can come after initial sale or forward contract decision**
- **More Advanced**
 - **Roll Hedges**
 - **FENCE, (Min-Max), Basis Open, store cash or wait to price, buy a put just out of the money and sell a call out of the money**
 - **MIN-MAX, (Fence), Basis Set, sell cash or forward contract, buy a call just in of the money and sell a call out of the money**

THE END

Introductory Pricing/Marketing Workshop for Grains
On-Line

Sponsored by MSUE and Michigan CORN

- Please send to Jim Hilker: hilker@msu.edu
- Questions
- Feedback
- Improvements
- Next step?
- Every thing will be left on the Website, see next page

Thanks

Questions/Discussion

Jim Hilker's Web Page

<http://www.msu.edu/user/hilker/>

hilker@msu.edu

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