

Learning to Insure Your Dairy Margins

Regional Workshops

December 2-6, 2013



This material is based upon work supported by the
USDA/NIFA under Award Number 2012-49200-20032.

Learning to Insure Your Dairy Margins

Regional Workshops - December 2-6, 2013

9:30 – 10:00 **Learning to Insure Your Dairy Margins – Overview, Tools, Techniques**
Joe Horner, MU Extension Economist

10:00 – 10:45 **Mechanics of the USDA Margin Insurance Proposed in Farm Bill**
Scott Brown, MU Research Assistant Professor

10:45 – 11:00 **Your Dairy Farm Using USDA’s Margin Insurance Program**
Joe Horner, MU Extension Economist

11:00 – 11:15 Break

11:15 – 12:00 **Risk Management Tools offered by Milk Marketing Cooperatives**
Earl Biggers, Manager DFA Risk Management

12:00 – 1:00 Lunch sponsored by:



1:00 – 1:45 **Livestock Gross Margin Insurance**
Greg Sowders, Great American Insurance

1:45 – 2:00 **Your Dairy Farm Using Livestock Gross Margin Insurance**
Joe Horner, MU Extension Economist

2:00 – 2:15 Break

2:15 – 3:00 **Hedging Milk Prices and Feed Costs via Brokers & Futures or Options**
Joe Horner, MU Extension Economist

3:00 – 3:30 **Insuring Your Dairy Margins – Putting the Pieces Together**
Questions & Answers Panel Discussion

Joe Horner,
MU Extension Economist
www.dairy.missouri.edu

Learning to Insure Your Dairy Margins

Overview, Tools, Techniques

Why are we having this workshop?

- MILC expired September 30, 2013.
- Margin Insurance will arrive with the Farm Bill.
 - It isn't simple.
 - It is important.
 - You will need to make decisions.
- Methods to insure margins already exist but are being used on less than 1/3 of US milk production. (MILC, LGM-Dairy, Hedging)

Why are we having this workshop?

In November 2012 MU Extension sent an online survey to 474 Missouri dairy producers to determine how prepared they are to use dairy margin insurance to manage income risk. Survey results from the 36 (7.6% returned) surveys were:

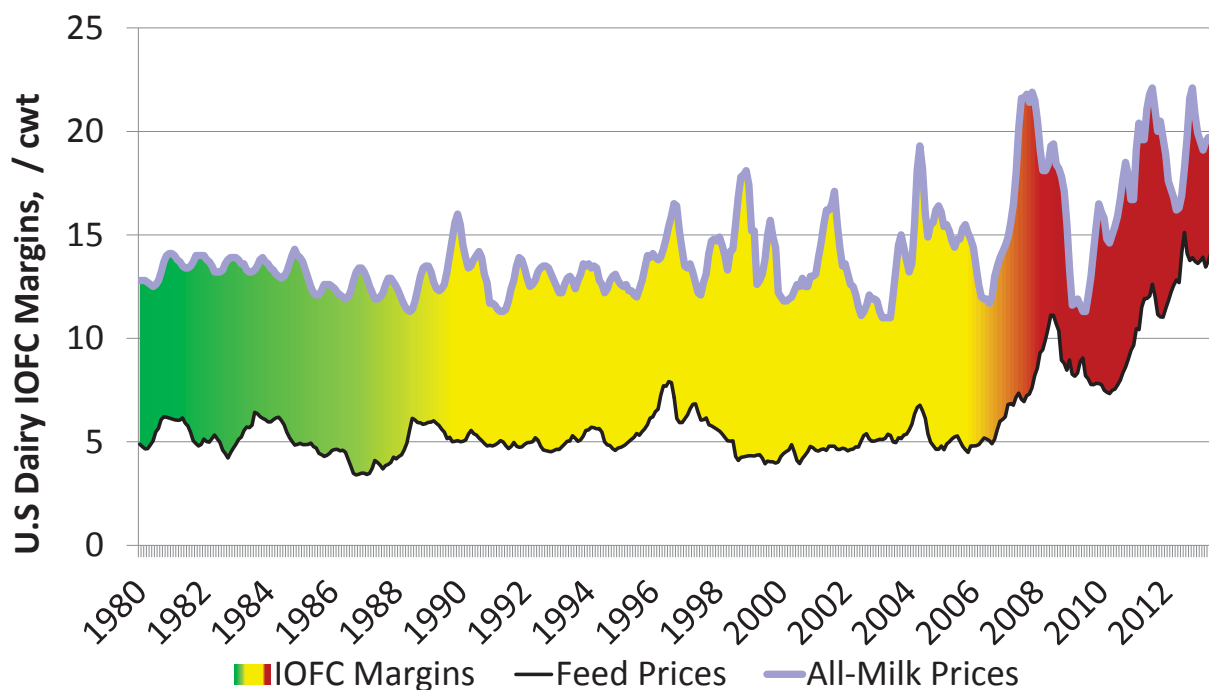
1.) Based upon what you already know about the dairy margin insurance program proposed for the new farm bill, are you planning to participate? Yes-22.2%, No-11.1%, **Unsure-52.8%**, Don't understand the question 13.9%.

2.) Now that the USDA's MILC program expired, how do you plan to protect your dairy against income losses in a low profit year? ~~Tough it out 8.3%~~, ~~Hedging 2.8%~~, ~~LGM-Dairy 5.6%~~, ~~Participation in margin insurance program 19.4%~~, **We haven't figured it out yet 63.9%**

2.) How do you prefer to learn to use the new dairy margin insurance program? ~~Published brochure 16.7%~~, ~~Internet Guide 11.1%~~, ~~Internet Video, 11.1%~~, **Attending a meeting with an instructor 61.1%**

3.) Would you attend a free one day training on dairy margin insurance? **Yes-58.3%**, No-11.1%, Only if it occurs between milkings 30.6%

A real problem...

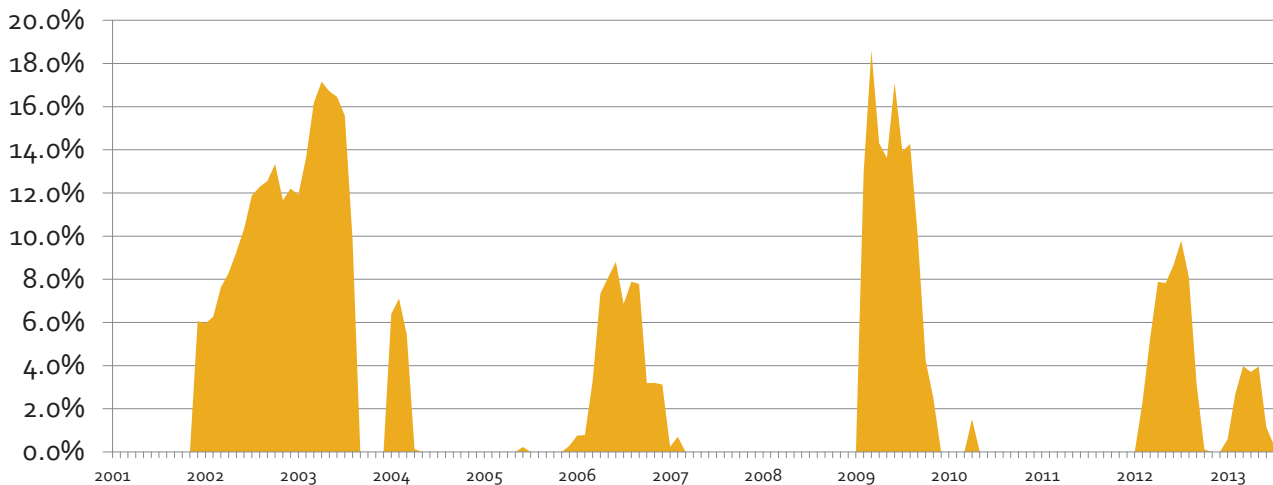


Source: Dr. Marin Bozic, University of Minnesota. Taken from USDA, various reports and his own calculations

“Avoid the un-manageable
and manage the unavoidable”

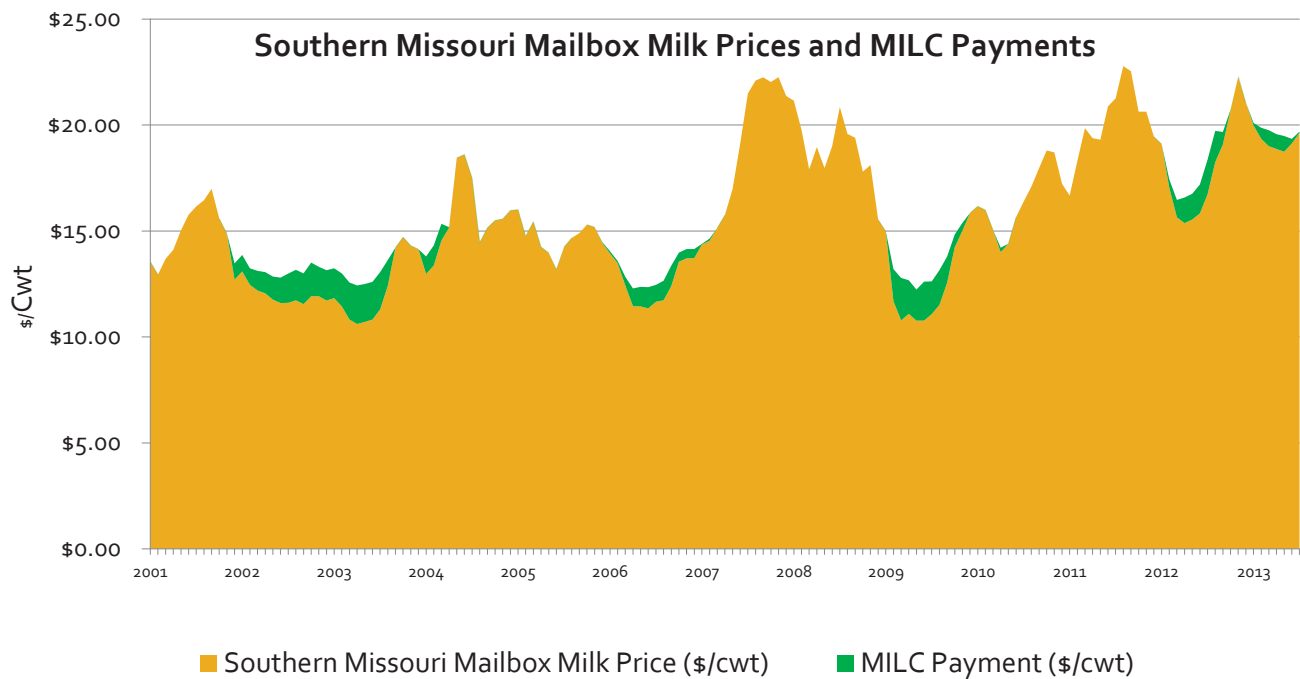
Milk Income Loss Contract (MILC)

MILC Payments as a Percentage of
Southern Missouri Mailbox Milk Price



- Farms with <100 cows got 42% of US payments yet produced only 18% of the milk

Now decisions shift to the producer

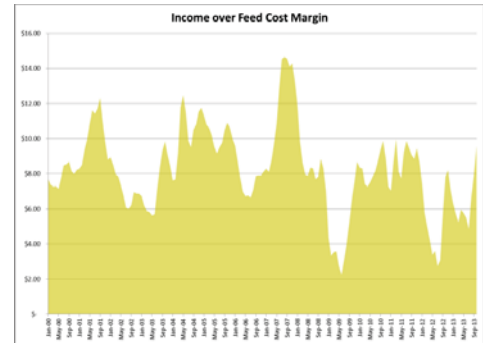


Four Tools to Insure Margins

- Margin Insurance proposed in Farm Bill.
- Risk Management Services offered by DFA.
- Livestock Gross Margin – Dairy Insurance.
- Hedging through brokers.

1.) Margin Insurance in Farm Bill

- USDA – FSA.
- Choose to participate.
- “Margin” based upon price of:
 - Corn
 - Soybean meal
 - Alfalfa hay
 - All milk price
- You decide how much “margin” you are willing to pay to insure.



2.) DFA Risk Management Services

Minimum/Maximum Contracts											
<i>(monthly per cwt. cost to establish a floor, give up some upside opportunity to reduce cost)</i>											
January - March 2014 Class III Min/Max Table						January - June 2014 Class III Min/Max Table					
Maximum	Minimum					Maximum	Minimum				
	\$16.00	\$16.25	\$16.50	\$16.75	\$17.00	\$16.00	\$16.25	\$16.50	\$16.75	\$17.00	
\$18.00	(0.08)	(0.14)	(0.22)	(0.31)	(0.43)	\$17.75	(0.09)	(0.17)	(0.26)	(0.36)	
\$18.25	(0.13)	(0.19)	(0.27)	(0.37)	(0.48)	\$18.00	(0.16)	(0.23)	(0.33)	(0.43)	
\$18.50	(0.17)	(0.23)	(0.31)	(0.40)	(0.52)	\$18.25	(0.21)	(0.28)	(0.38)	(0.48)	
\$18.75	(0.20)	(0.27)	(0.35)	(0.44)	(0.55)	\$18.50	(0.25)	(0.32)	(0.42)	(0.52)	
\$19.00	(0.23)	(0.29)	(0.37)	(0.46)	(0.58)	\$18.75	(0.28)	(0.36)	(0.45)	(0.56)	

Fixed Price Contracts						Minimum Price Contracts				
Months	Class III (\$ per cwt.)	Weekly Change	Class IV (\$ per cwt.)	Weekly Change	Class III Milk-Feed Index	Weekly Change	Months	Class III \$15.00	Class III \$15.50	Class III \$16.00
Jan14-Mar14	16.93	↑ 0.04	19.64	↑ 0.49	7.74	↑ 0.19	Jan14-Mar14	(0.11)	(0.17)	(0.26)
Jan14-Jun14	16.79	↑ 0.03	19.02	↑ 0.31	7.56	↑ 0.17	Jan14-Jun14	(0.17)	(0.25)	(0.37)
Jan14-Dec14	16.87	↑ 0.02	18.45	↑ 0.16	7.70	↑ 0.15	Jan14-Dec14	(0.22)	(0.31)	(0.44)

Feed Contracts						
Months	Corn Rider (\$ per bu.)	Weekly Change	Soymeal (\$ per ton)	Weekly Change	Feed Rider (\$ per cwt.)	Weekly Change
Jan14-Mar14	4.44	↓ (0.08)	401.63	↓ (5.67)	9.36	↓ (0.15)
Jan14-Jun14	4.49	↓ (0.08)	397.47	↓ (4.97)	9.38	↓ (0.15)
Jan14-Dec14	4.60	↓ (0.08)	380.63	↓ (3.92)	9.32	↓ (0.14)

Class III Milk-Feed Index						
Months	\$6.75 Min	\$7.00 Min	\$7.25 Min			
Jan14-Mar14	(0.70)	(0.79)	(0.90)			
Jan14-Jun14	(0.89)	(0.99)	(1.12)			
Jan14-Dec14	(1.09)	(1.20)	(1.32)			

Target Blend						
Months	Central Area	Mid-east Area	Northeast Area	Southeast Area	Southwest Area	Colorado State
Jan14-Jun14	18.95	19.19	19.96	21.23	17.95	18.95
Jan14-Sept14	18.74	18.96	19.71	20.92	17.80	18.74
Jan14-Dec14	18.62	18.85	19.56	20.74	17.71	18.62

Upside Riders						
Months	Class III \$19.50	Class III \$19.00	Class III \$18.75			
Jan14-Mar14	(0.11)	(0.13)	(0.15)			
Jan14-Jun14	(0.12)	(0.16)	(0.18)			
Jan14-Dec14	(0.22)	(0.28)	(0.32)			

Target PPD / Blend Basis					
Months	Central Area	Mid-east Area	Northeast Area	Southeast Area	Colorado State
Jan14-Jun14	2.09	2.33	3.10	4.37	2.09
Jan14-Sept14	1.82	2.03	2.78	3.99	1.82
Jan14-Dec14	1.67	1.88	2.61	3.79	1.67

Program Updates	
DFA Risk Management is now offering the Target PPD contract to help members manage the PPD or blend basis risk in their milk price. For more information, call 1-877-424-3343 to find out more.	

3.) Livestock Gross Margin – Dairy

- A subsidized insurance program.
- Sold thru crop insurance agents.
- Sold only last Friday of each month.
- Hedges your expected feed usage using market prices available for feed and milk at the time of booking the insurance.

USDA United States Department of Agriculture
RMA Risk Management Agency
Program Act Number 2007

Livestock Gross Margin
Dairy Cattle
July 2011

Livestock Gross Margin (LGM)
LGM Dairy Cattle (LGM Dairy) provides protection against loss of gross margin (market value of milk minus feed costs) on milk produced from dairy cows. LGM Dairy uses the Chicago Mercantile Exchange Group futures price for corn, soybean meal, and skim 35 milk to determine the expected gross margin and the actual gross margin.

Producer premium subsidy is available for the LGM Dairy plan of insurance and is determined by the deductible amount chosen by the producer. All administrative and operating activities are paid by the Federal Crop Insurance Corporation.

The indemnity at the end of the 11-month insurance period is the difference, if positive, between the gross margin guarantee and the actual gross margin. The price the producer receives at the local market is not used in these calculations.

Availability
LGM is available to any producer who owns dairy cattle in the 48 contiguous states.

Milk Coverage Availability
Only milk sold for commercial or private sale (not used for feed) is eligible for LGM Dairy coverage. There is an maximum number of head/weight of a producer can insure. However, the maximum amount of milk that can be insured is 24 million pounds per crop year.

Coverage Levels/Deductibles
Producers can select deductible levels between \$0 and \$1,000 per head/weight of milk at \$0.10 increments.

Sales Closing
To enroll, producers must sign up on the last business Friday of the month, submitting an application with a target marketing report for the milk and corn and soybean meal quantities to be insured.

Prices
Prices for LGM Dairy are based on simple averages of futures contract dairy settlement prices, and are not based on the prices the producer receives at the market.

Insurance Months
The insurance period contains the 11 months following sales closing. For example, the insurance period for the January 29 sales closing date contains the months of February through December. However, coverage begins in the second month of the insurance period, so the coverage period for this example is the months of March through December.

LGM Selling Period
LGM Dairy is sold on the last business Friday of each month. The sales period begins in case an RMA returns the data submitted by the coverer and develops a LGM Dairy after the close of markets on the last day of the prior insurance period. The sales period ends at 4:00 p.m. CST the following evening. If expected milk and feed prices are not available on the RMA Web site, LGM Dairy will not be offered for sale for that insurance period.

Annual Premium
LGM premiums depend on producers' marketing plan, deductible level, sales and price volatility. Premium billing dates are determined by the target marketing report each will be the first business day of the month following the last month that a producer reports their second marketing in the target marketing report.

Cause of Loss
LGM Dairy covers the difference between the gross margin guarantee and the actual gross margin. LGM Dairy does not insure against dairy cattle death loss, unexpected decreases in milk production, or unexpected increases in feed use. Submissions to be paid will equal the difference between the gross margin guarantee and the actual total gross margin for the insurance period.

4.) Hedging through brokers



COMMODITY PRODUCTS

An Introduction to Trading Dairy Futures and Options



Essential knowledge for navigating a DYNAMIC commodities marketplace.

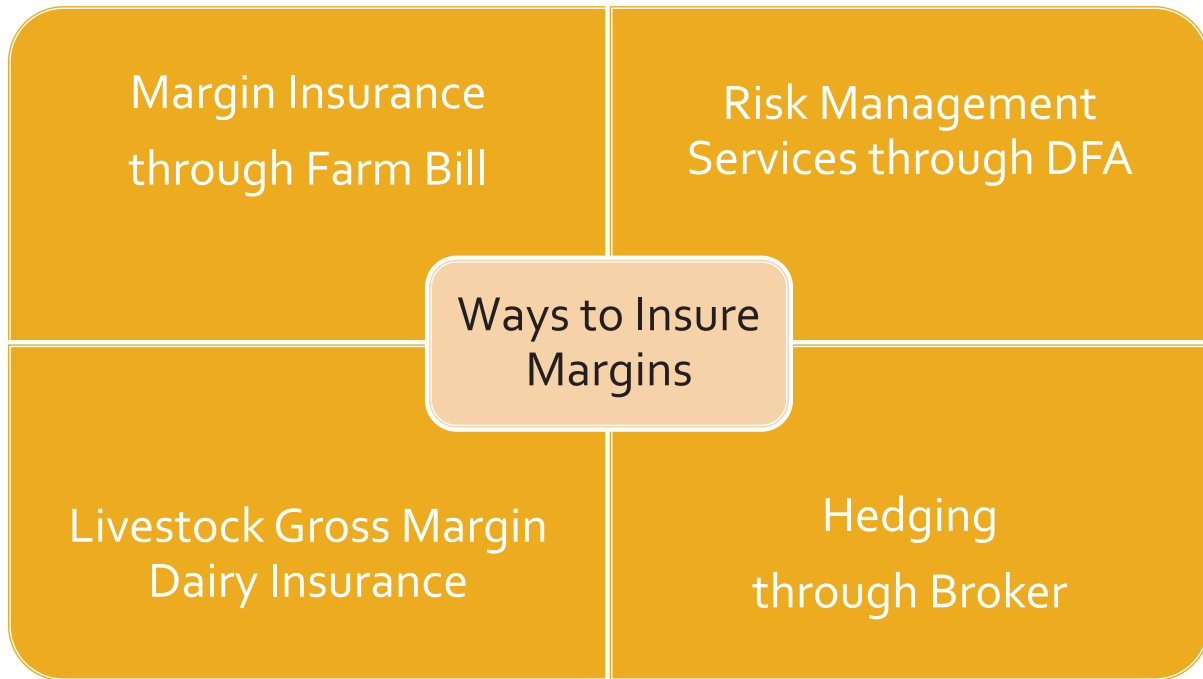
KDM TRADING

Click here for the KDM Dairy Report registration request

commodity network

Specializing in payments in the developing world.

Four Tools to Insure Margins



Today's Workshop

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Workshop Manual

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United States
Department of
Agriculture

National Institute
of Food and
Agriculture

After each presentation we will review the mechanics of methods

Method of insuring a margin	Where do I do this?	When do I do this?	How do I pay for it	How do I get paid?	Cash flow impacts?
<i>Farm Bill Margin Insurance</i>					
<i>DFA Risk Management Services</i>					
<i>LGM- Dairy Insurance</i>					
<i>Hedging via Brokers</i>					

Mechanics of the USDA Margin Insurance Proposed in the Farm Bill

Dr. Scott Brown

Agricultural Markets and Policy

Division of Applied Social Sciences



College of Agriculture,
Food and Natural Resources

<http://web.missouri.edu/~browndo>

A Different Form of Risk Protection Coming?

- Farm bill alternatives still being debated
- Dairy margin protection has been front and center
- Much discussion around the market stabilization component
- Margin protection is VERY different than other market-based risk management tools
- It is time for producers to think about their use of the program
 - ▣ How good of a risk reduction tool is it on your operation?
 - ▣ Can it be used with other market risk reduction tools?



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Margin Protection (Milk Price Less Feed Costs) Has Been The Focus

- The combination of high feed costs and price volatility has led the discussion of margin protection
- Protecting margins instead of just milk prices helps on government outlays because milk prices and feed costs are correlated
- This margin is what producers have available to pay for all other costs besides feed costs
- There has been inflation in these other costs over time
- Producer response to margin risk reduction



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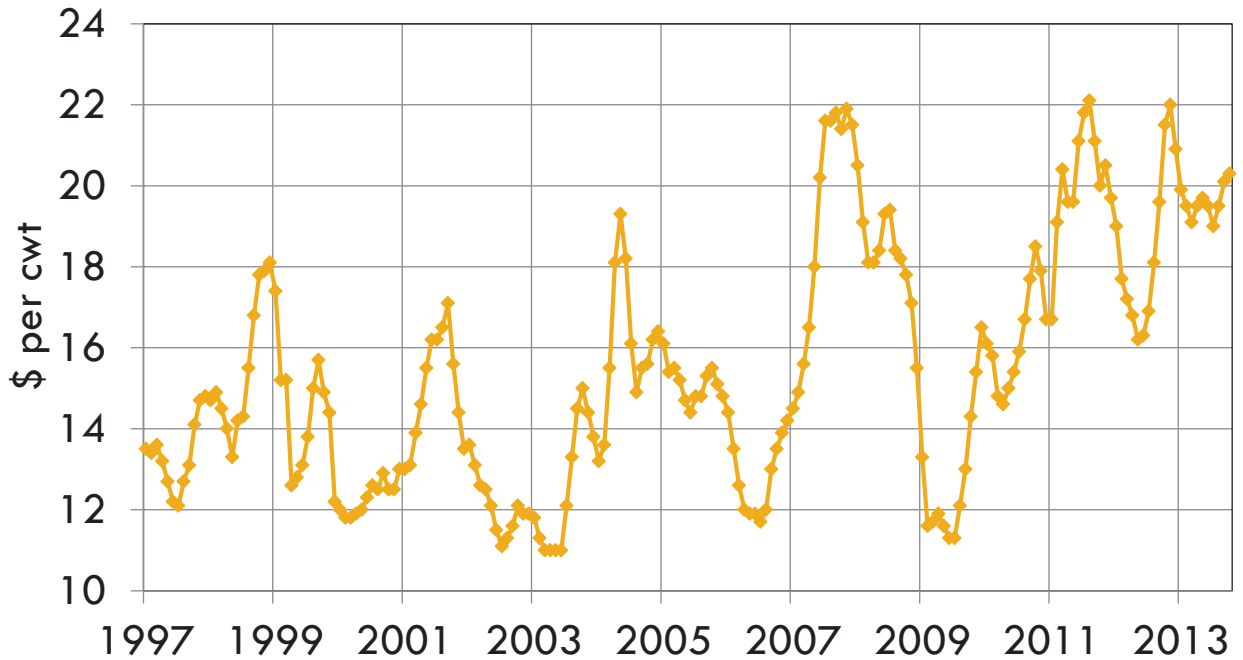
National Program Margin Calculation


- **All Milk Price less Feed Cost**
 - The average cost of feed for a dairy operation required to produce a Cwt. Of milk, determined in accordance with the following formula: $[1.0728 \times \text{price of corn/bu.}] + [0.00735 \times \text{price of soybean meal/ton}] + [0.0137 \times \text{price of alfalfa hay/ton}]$.



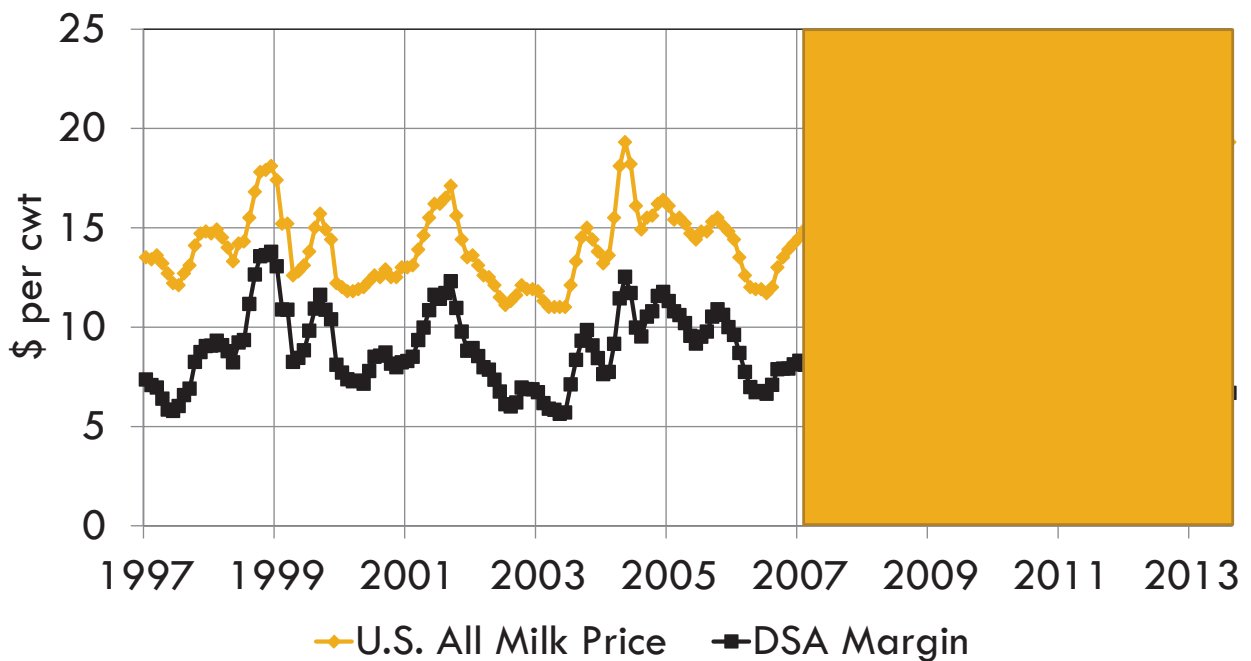
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Monthly U.S. All Milk Prices



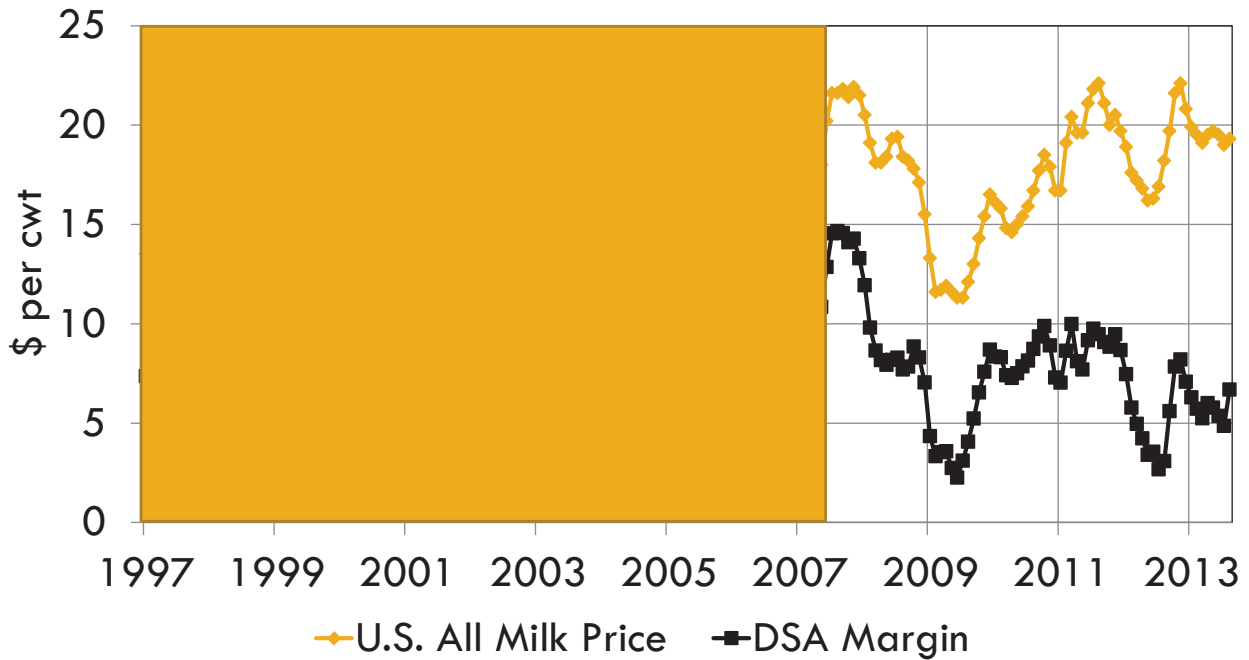
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Dairy Industry Facing Milk Price and Margin Volatility



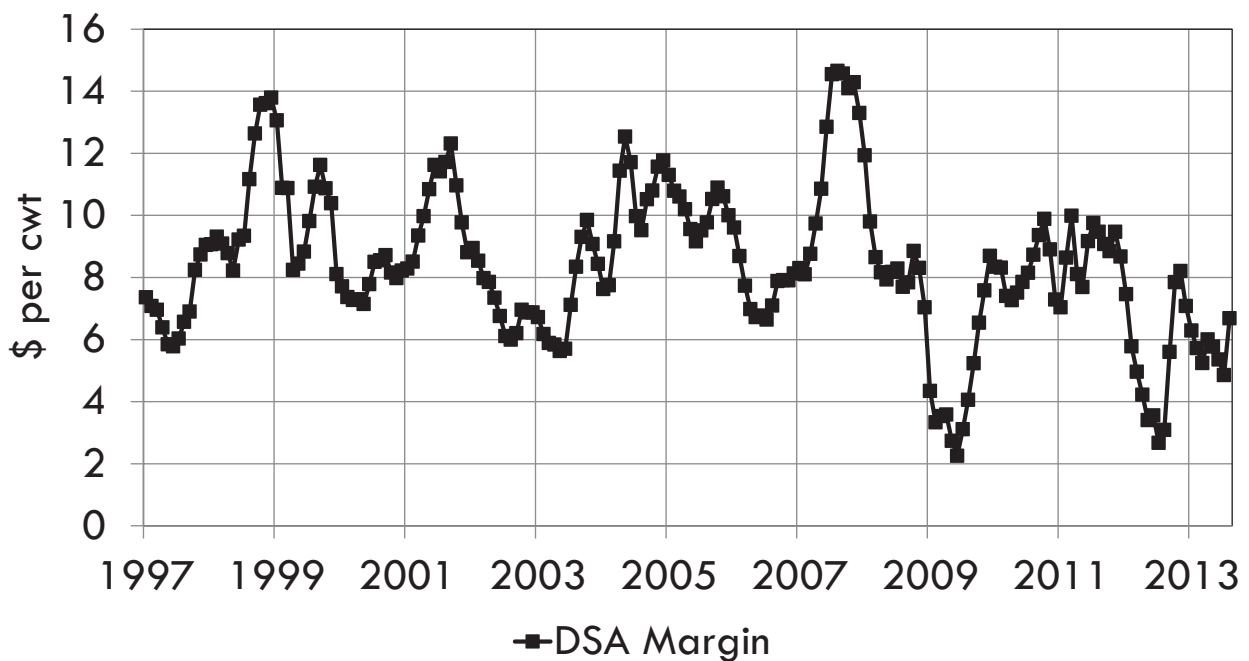
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Dairy Industry Facing Milk Price and Margin Volatility



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How Does Your Operation's Margin Compare to the U.S. Margin?



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Senate Dairy Provisions

- Producer participation is voluntary
- Dairy Producer Margin Protection Program (DPMPP)
 - ▣ **Base Program** – 80% historical base, margin < \$4 triggers payments
 - ▣ **Supplemental Program** – Producer can buy-up margin coverage, up to \$8 coverage, lower premiums for the first 4 million pounds, **supplemental base adjusts**, 25 to 90% annual coverage choice
- Dairy Market Stabilization Program (DMSP)
 - ▣ Producer milk marketings capped when margins < \$6
 - ▣ U.S. to world price triggers kick out the program
- Annual registration fee

How does the Dairy Market Stabilization Program work?

- \$6 for 2 consecutive months
 - ▣ Producers paid for 98% of their base milk marketings
 - ▣ Maximum reduction is 6% of current milk marketings
- \$5 for 2 consecutive months
 - ▣ Producers paid for 97% of their base milk marketings
 - ▣ Maximum reduction is 7% of current milk marketings
- \$4 for 1 month
 - ▣ Producers paid for 96% of their base milk marketings
 - ▣ Maximum reduction is 8% of current milk marketings

House Dairy Provisions

- Producer participation is voluntary
- Dairy Producer Margin Protection Program (DPMPP)
 - ▣ Producer can buy-up margin coverage, up to \$8 coverage, lower premiums for the first 4 million pounds, **base adjusts**, 25 to 80% annual coverage choice

There Are Different Premiums For Each Coverage Level

Coverage Level	Senate Bill		House Bill	
	First 4 million lbs	Above 4 million lbs	First 4 million lbs	Above 4 million lbs
\$4.00	\$0.000	\$0.000	\$0.000	\$0.030
\$4.50	\$0.010	\$0.020	\$0.010	\$0.045
\$5.00	\$0.020	\$0.040	\$0.020	\$0.066
\$5.50	\$0.035	\$0.100	\$0.035	\$0.110
\$6.00	\$0.045	\$0.150	\$0.045	\$0.185
\$6.50	\$0.090	\$0.290	\$0.090	\$0.290
\$7.00	\$0.400	\$0.620	\$0.180	\$0.380
\$7.50	\$0.600	\$0.830	\$0.600	\$0.830
\$8.00	\$0.950	\$1.060	\$0.950	\$1.060

Farm Example – Senate Margin Insurance



First decision: Does the producer participate?

If yes, then this farm has two choices regarding supplemental coverage:

- 1) Level of coverage 0%, 25% to 90%
- 2) Allow for growth in marketings

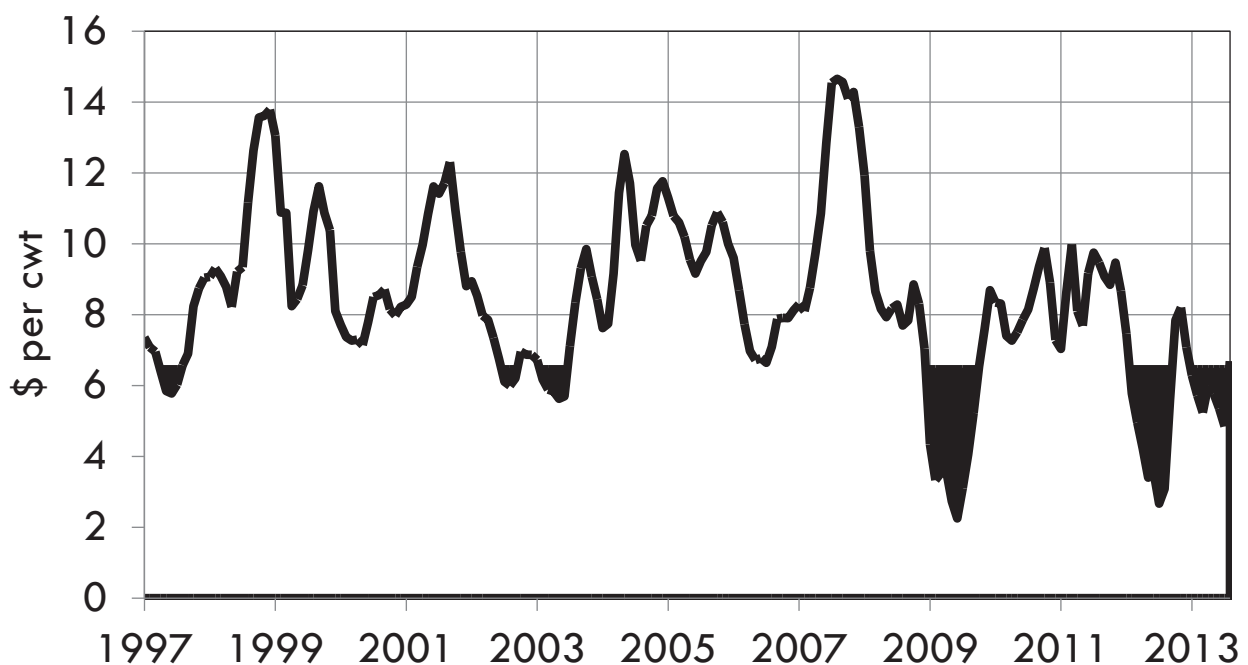
Farm Example – Senate Margin Insurance



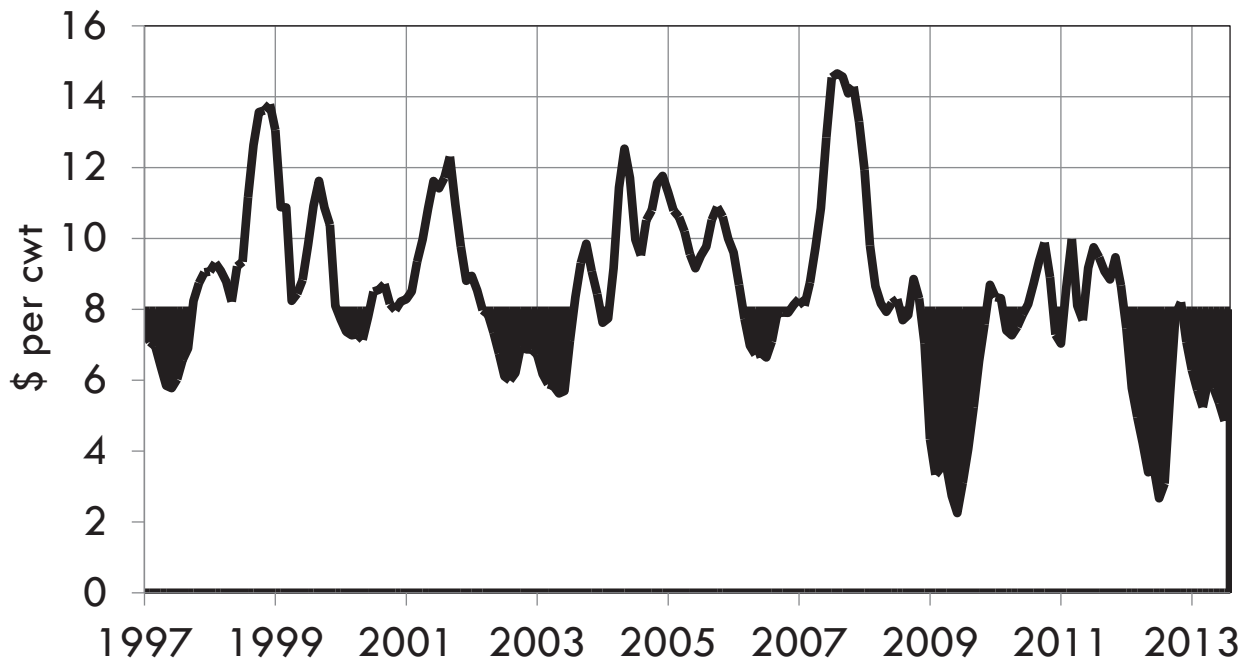
Other Details


- You need to sign up for the life of the farm bill
- You need to pick a coverage level at the beginning of each year
- Remember, you can use other risk management tools with this type of program
 - ▣ Futures market
 - ▣ Forward contract

You Could Pick \$6.50 Coverage

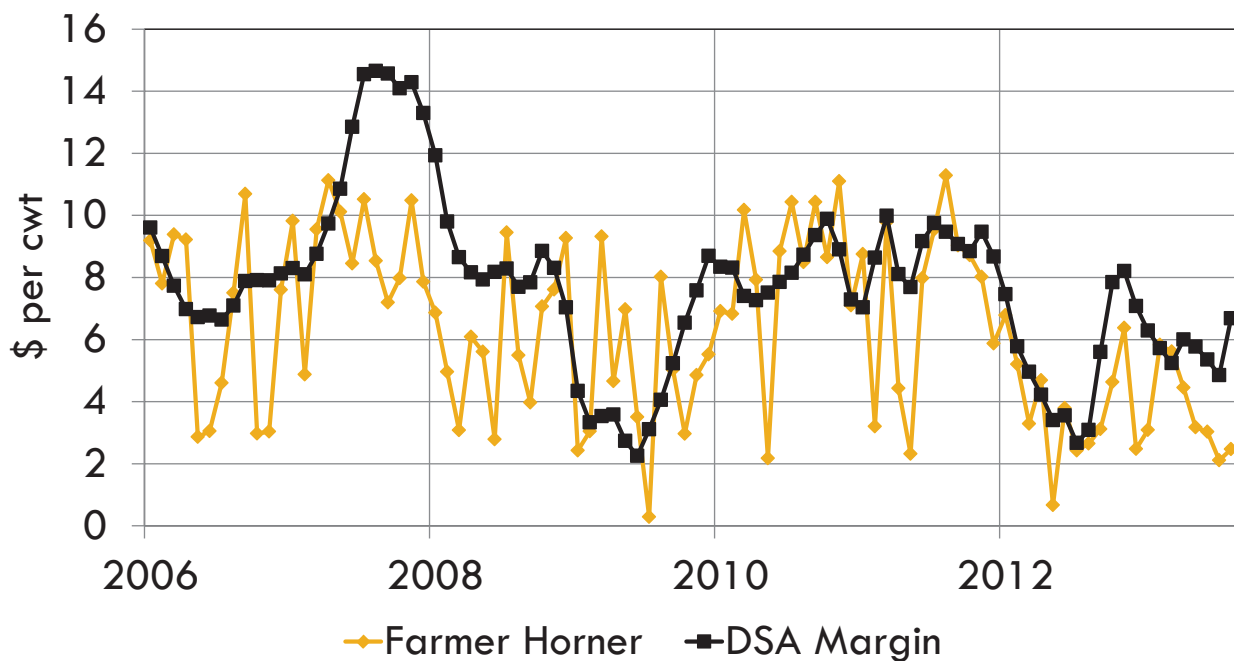


You Could Pick \$8.00 Coverage



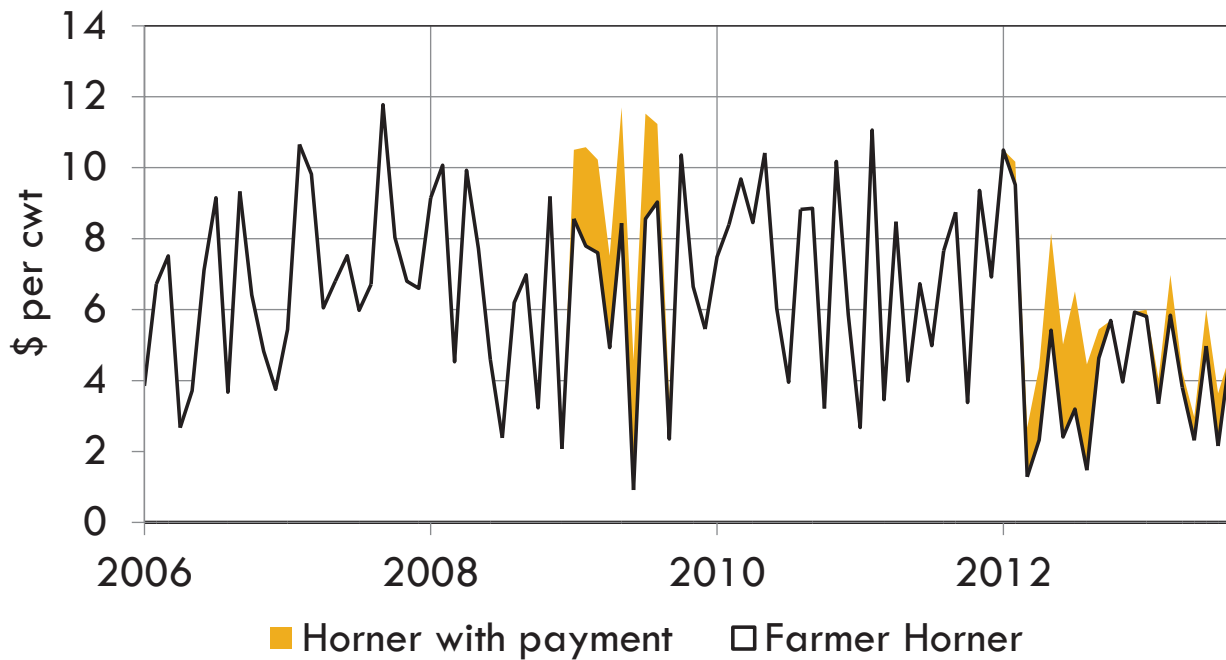
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Should This Producer Sign Up? Horner Example



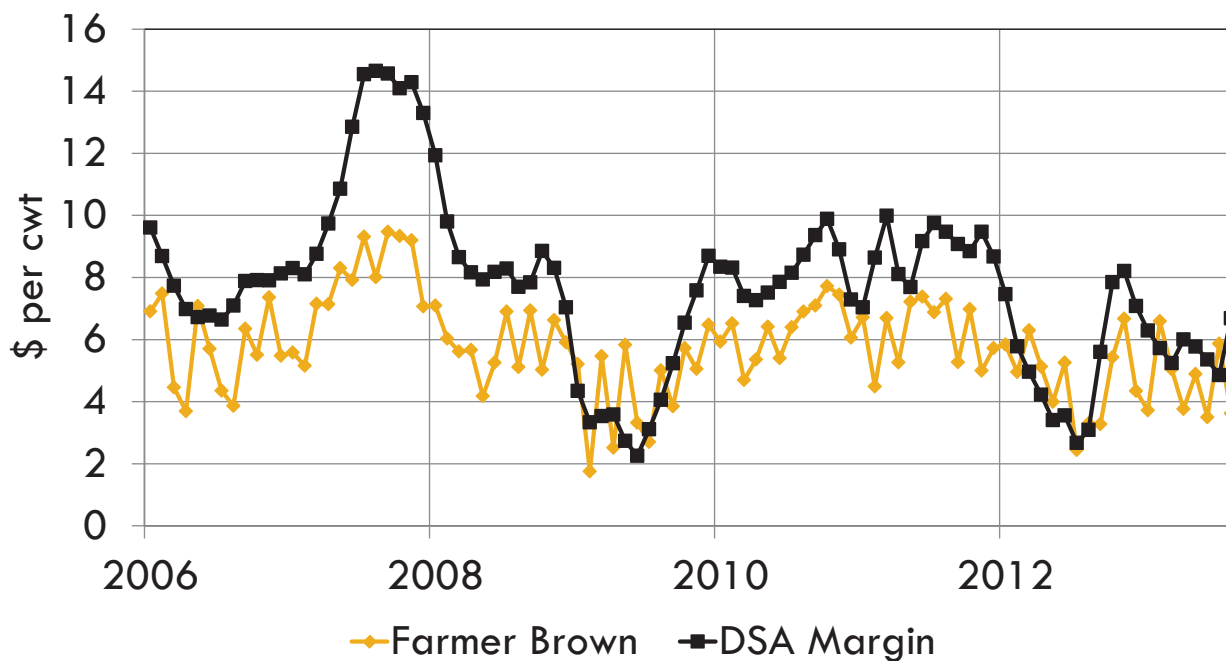
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Should This Producer Sign Up? Horner Example



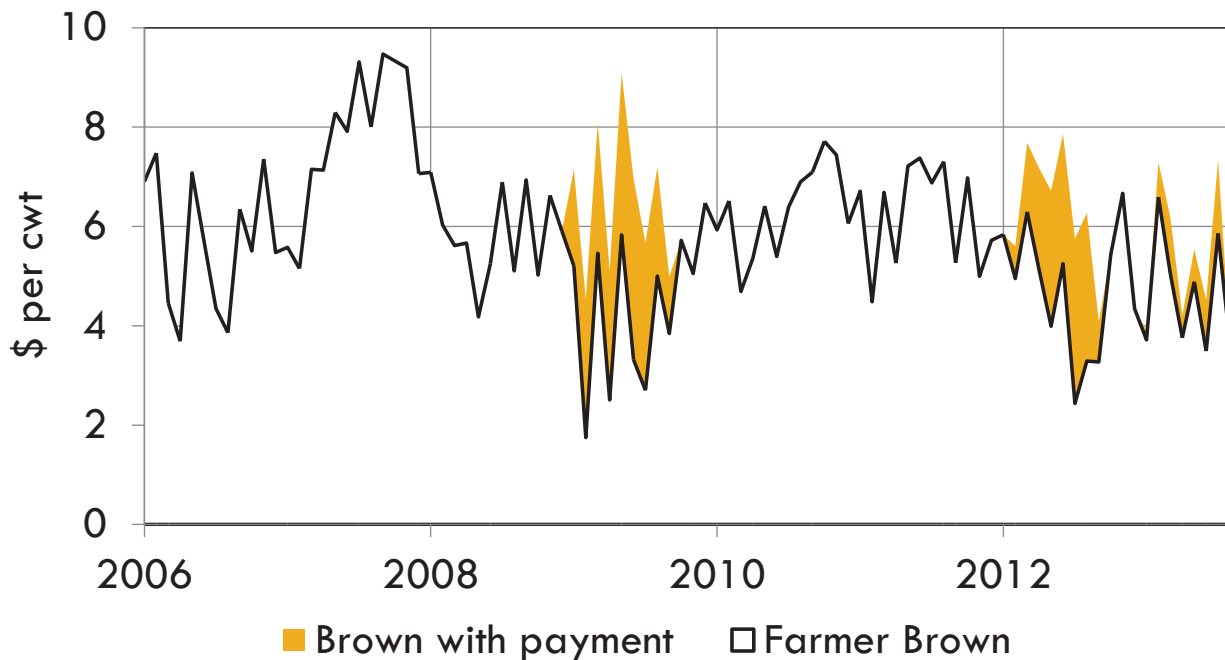
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Should This Producer Sign Up? Brown Example



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Should This Producer Sign Up? Brown Example



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You Must Factor In Other Producers' Response

- Senate version
 - If sign up is large, market stabilization could play a big role and could make it more attractive to stay out
 - If sign up is small, market stabilization could play a smaller role making sign up for margin insurance important
- House version
 - If sign up is large then sign up is more important because margin insurance payments prolongs low market prices
 - If sign up is small then opting out carries less risk of long low market outcomes
- Signup for the life of the farm bill

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Summary

- Still early in the process in determining exactly how these programs would be passed and implemented
- USDA would have to issue rules once the farm bill is passed
- Expect calculators from academics to be available for you to help with the choice
- Do not expect the next five years to be like the 2009 to 2013 period



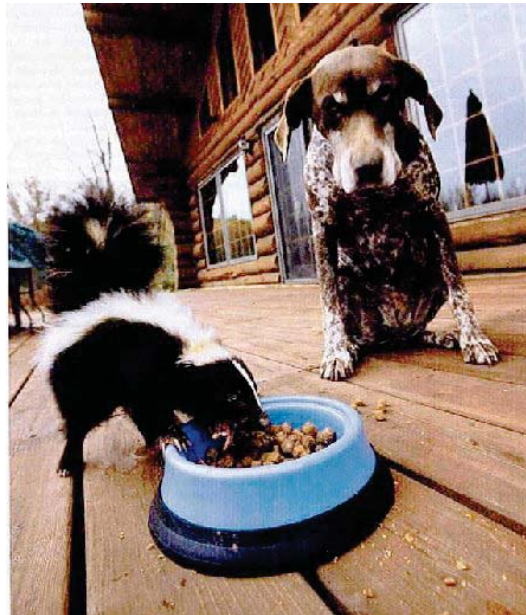
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Risk Management Tools

Earl D. Biggers
Manager, DFA Risk Management

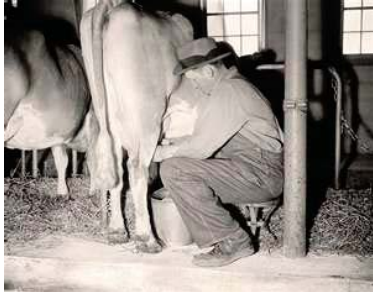


One way to handle risk – just sit it out!



Why is milk marketing so complicated?

- In times past, the dairyman received whatever the local creamery was paying



- Virtually every aspect of farming has changed



DFA Risk Management

Sample milk check from a Skim/Fat Federal Order, "southern" Missouri

Pay Period Totals:	WEIGHT	GROSS	\$ 38,474.90	DEDUCTION \$	2,500.00	NET	\$ 35,974.90
TANK WEIGHTS		COMPONENTS		QUALITY TEST RESULTS			
01 thru 30		B.F.		SOMATIC CEL	BACTERIA	FRZPT	INHIBITOR SED TEMP
TOTAL	200,000 AVG	3.50	3.12	200,000			
PRICING INFORMATION							
PAYMENT		WEIGHT	PRICE		AMOUNT		
SKIM PAYMENT		193,000.00	0 / CWT		31.20		
BUTTERFAT PAYMENT	3.50	7,000.00	0 / LB		53.70		
RBST FREE PREMIUM		200,000	0 / CWT		20.00		
PI QUALITY		200,000	0 / CWT		30.00		
VOLUME		200,000	0 / CWT		30.00		
					38,474.90		
GRADE A	PAY PRICE					\$ 19,23745	
FORWARD CONTRACTING PRICING INFORMATION							
MIN/MAX CLASS III	WEIGHT	MIN/STRIKE	MAX/STRIKE	PREMIUM	CONTRACT PRICE	ANNOUNCED PRICE	ADJ AMOUNT
	100,000	\$ 14.00	\$ 17.00	\$ 0.10	\$ 16.40	\$ 16.50	\$ (0.10) \$ (100.00)
	FORWARD CONTRACT SUBTOTAL						\$ (100.00)
PAY PRICE ADJUSTED BY FORWARD CONTRACT PRICING						\$ 19,18745	



DFA Risk Management

Sample milk check from a multiple component Federal Order, "northern" Missouri

Pay Period Totals:	WEIGHT	1,603,200	GROSS	265,794.04	DEDUCTIONS
TANK WEIGHTS			COMPONENTS		QUALITY TEST RESULTS
01 thru 30			B.F. PROT OTS SOMATIC CELL	BACTERIA	FRZPT INHIBITOR SED TEMP
TOTAL	1,603,200	AVG	3.68 3.07 5.76 322,000		

*****PRICING INFORMATION*****

BUTTERFAT PAYMENT	3.00	DF AVG	59,001.12	1.0394	100,030.52
PROTEIN PAYMENT	3.07	PROT AVG	49,183.22	2.7055	133,065.20
OTHER SOLIDS PAYMENT	5.76	OS AVG	92,283.17	0.1020	9,412.88
PROD PRICE DIFF			1,603,200	0.0400	641.28
SOMCELL ADJ	322,000	SCC RATE .00280	1,603,200	0.0800	1,282.56
QUALITY			1,603,200	0.1000	1,603.20
VOLUME			1,603,200	1.2000	19,238.40

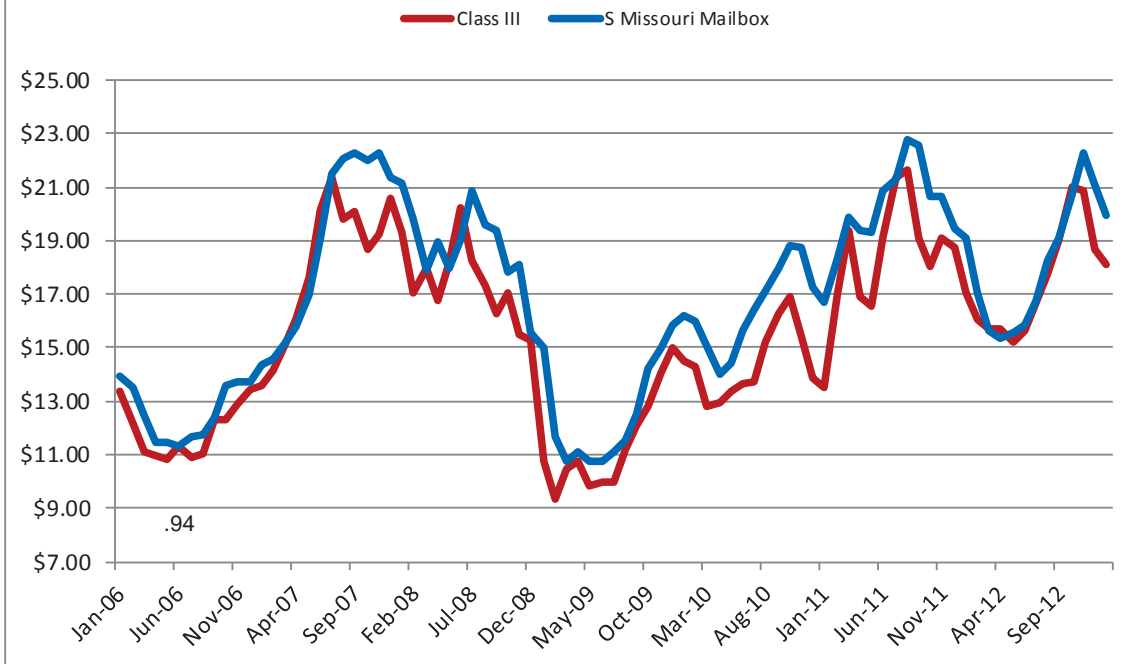
GRADE A PAY PRICE ***** \$ 16.55028

-----FORWARD CONTRACTING PRICING INFORMATION-----							
	WEIGHT	MIN PRICE	PREMIUM	CONTRACT PRICE	ANNOUNCED PRICE	ADJ	AMOUNT
FIXED CLASS III	200,000			\$ 12.50	\$ 12.29	\$ 0.21	\$ 420.00
FIXED CLASS III	200,000			\$ 12.00	\$ 12.29	\$ (0.29)	\$ (580.00)
MINIMUM CLASS III	200,000	\$ 13.00	\$ 0.40	\$ 12.60	\$ 12.29	\$ 0.31	\$ 620.00
FORWARD CONTRACT SUBTOTAL							\$ 460.00
PAY PRICE ADJUSTED BY FORWARD CONTRACT PRICING *****							\$ 16.57897



DFA Risk Management

S Missouri Mailbox Price Compared to Class III



DFA Risk Management

Volatility!

A 30 Year Class III History

\$20.00

Why volatility may be here to stay

BY Jurrien Timmer, Director of Global Macro and Co-Manager of Fidelity® Global Strategies Fund, Fidelity Viewpoints — 10/24/11

\$16.00

\$14.00

\$12.00

\$10.00

\$8.00

Dollars per cwt.

Mar-82

Jan-83

Nov-83

Sep-84

Jul-85

May-86

Mar-87

Jan-88

Nov-88

Sep-89

Jul-90

May-91

Mar-92

Jan-93

Nov-93

Sep-94

Jul-95

May-96

Mar-97

Jan-98

Nov-98

Sep-99

Jul-00

May-01

Mar-02

Jan-03

Nov-03

Sep-04

Jul-05

May-06

Mar-07

Jan-08

Nov-08

Sep-09

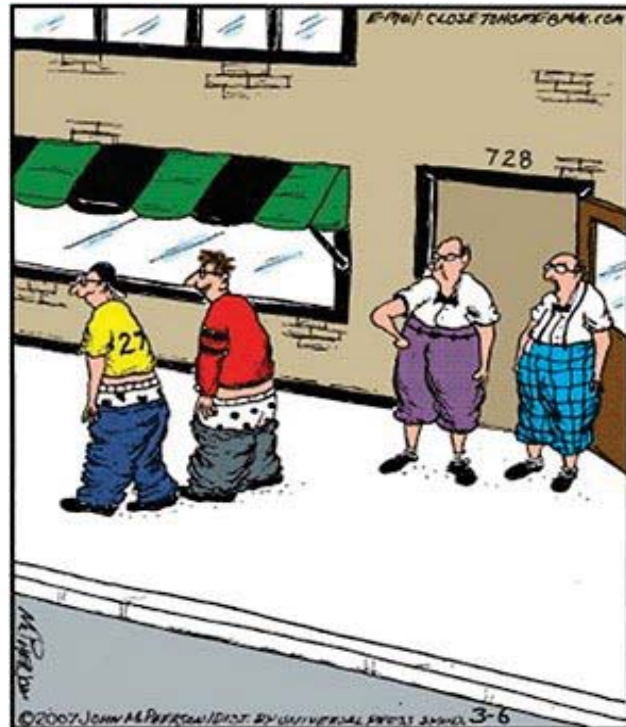
Jul-10

May-11



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Volatility of a Different Sort!



"Look at those dang fool teenagers, wearin' their pants hangin' down low like a coupla idiots!"



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. . . So Why Forward Contract?

1. To decrease price volatility
2. To aid in cash flow, to make your debt obligations
3. To create a price floor (Min Price Contract)
4. To shift price risk to somebody else

IT'S NOT TO BEAT THE MARKET!



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What is “Beating the Market”?

KEY POINT!



- Forward contracting is **NOT** being “smart enough” to consistently out guess the market and thereby get a higher price –
- It’s about transferring risk and/or decreasing volatility of prices.



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This is NOT forward contracting!



Wise Guy



Placing Order With
Earl in KC



Hit the Jackpot



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“Basis”
an important
concept even if you
never contract



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Your Farm Gross Milk Price =

Announced Class III

**Class III
BASIS**



- +/- your actual test %
- +/- bacteria quality (SPC, PI, LPC, etc)
- +/- your SCC
- +/- any other premium (rBST, vol, etc)
- +/- the value brought by CI I, CI II, & CI IV sales

= Your farm's specific, gross pay price



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Sample Basis Report

Basis Report for Forward Contracting

Prices are based on per cwt
As of April 18, 2011

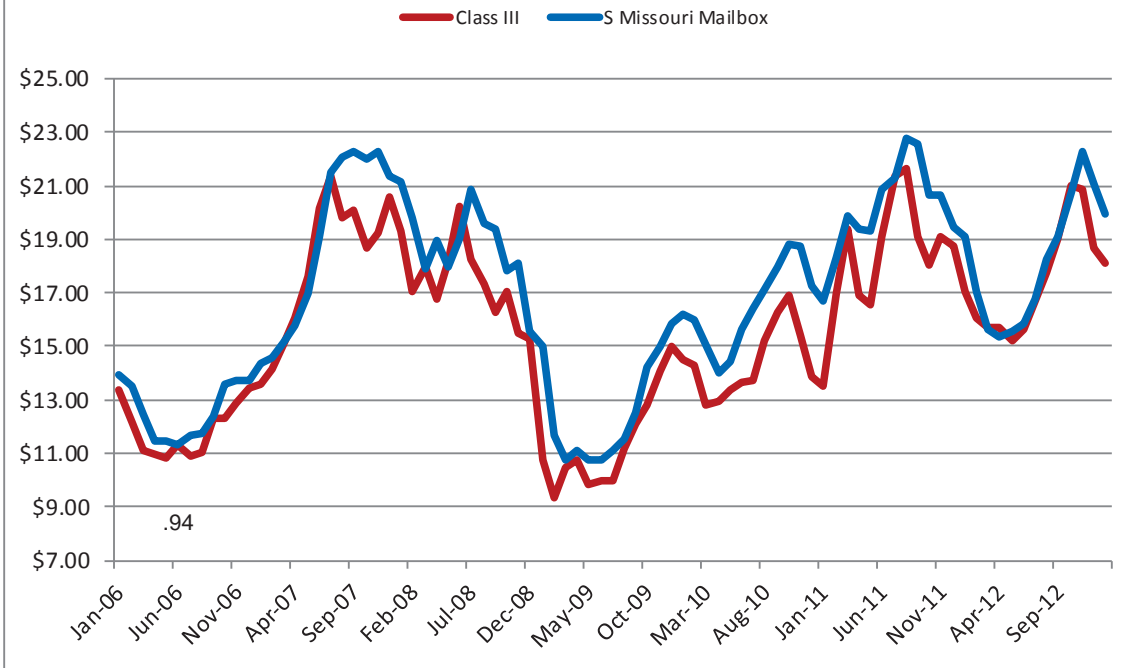
Page 2 of 3

Division	Member	Name				
	0000					
Month	Pay Price	Announced Price Class III	Class IV	Class III Basis (Pay Price - Class III)	Class IV Basis (Pay Price - Class IV)	Total Weight
JUN-2007	20.60	20.17	20.76	0.43	-0.16	856,102
JUL-2007	22.26	21.38	21.64	0.88	0.62	840,784
AUG-2007	22.25	19.83	21.87	2.42	0.38	857,742
SEP-2007	22.58	20.07	21.61	2.51	0.97	878,488
OCT-2007	22.27	18.70	21.31	3.57	0.96	877,915
NOV-2007	22.49	19.22	20.40	3.27	2.09	815,942
DEC-2007	22.27	20.60	19.18	1.67	3.09	865,400
2007	*average 19.69	18.04	18.36	1.65	1.33	883,656
*average is based on 12 months						75% = 662,742
JAN-2008	21.35	19.32	16.29	2.03	5.06	971,893
FEB-2008	20.03	17.03	14.67	3.00	5.36	853,924
MAR-2008	18.21	18.00	14.17	0.21	4.04	967,881
APR-2008	19.24	16.76	14.56	2.48	4.68	879,656
MAY-2008	18.80	18.18	15.26	0.62	3.54	895,868
JUN-2008	20.11	20.25	15.92	(0.14)	4.19	901,253
JUL-2008	20.45	18.24	16.60	2.21	3.85	929,157
AUG-2008	19.39	17.32	16.64	2.07	2.75	881,299
SEP-2008	19.24	16.28	15.45	2.96	3.79	903,266
OCT-2008	18.80	17.06	13.62	1.74	5.18	971,640
NOV-2008	18.21	15.51	12.25	2.70	5.96	886,147
DEC-2008	16.66	15.28	10.35	1.38	6.31	907,371
2008	*average 19.21	17.44	14.65	1.77	4.56	912,413
*average is based on 12 months						75% = 684,310
JAN-2009	15.04	10.78	9.59	4.26	5.45	881,343
FEB-2009	12.69	9.31	9.45	3.38	3.24	834,881
MAR-2009	12.63	10.44	9.64	2.19	2.99	898,609
APR-2009	12.86	10.78	9.82	2.08	3.04	902,169
MAY-2009	12.37	9.84	10.14	2.53	2.23	982,994
JUN-2009	12.01	9.97	10.22	2.04	1.79	916,355
JUL-2009	11.80	9.97	10.15	1.83	1.65	887,100
AUG-2009	12.64	11.20	10.38	1.44	2.26	886,320
SEP-2009	13.73	12.11	11.15	1.62	2.58	824,291
OCT-2009	14.83	12.82	11.86	2.01	2.97	766,623
NOV-2009	16.44	14.08	13.25	2.36	3.19	752,995
DEC-2009	17.48	14.98	15.01	2.50	2.47	833,988
2009	*average 13.71	11.36	10.89	2.35	2.82	863,981
*average is based on 12 months						75% = 647,986



Your Basis Report is available on your home page on the MyDFA Website and at dfariskmanagement.com

S Missouri Mailbox Price Compared to Class III



DFA Risk Management

Contracting Tools



DFA Risk Management

Two Main Distinctions:

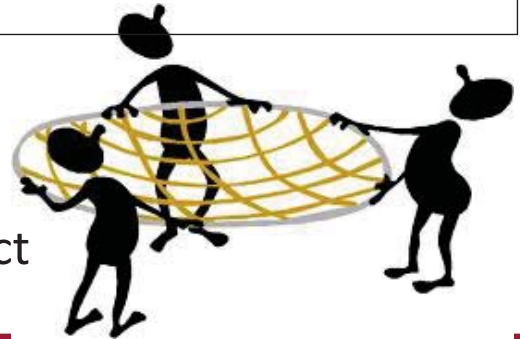


There are forward contracts that are **fixed**:

- Fixed Class III
- Fixed Class IV
- Target Blend

Other forward contracts act like a **safety net**:

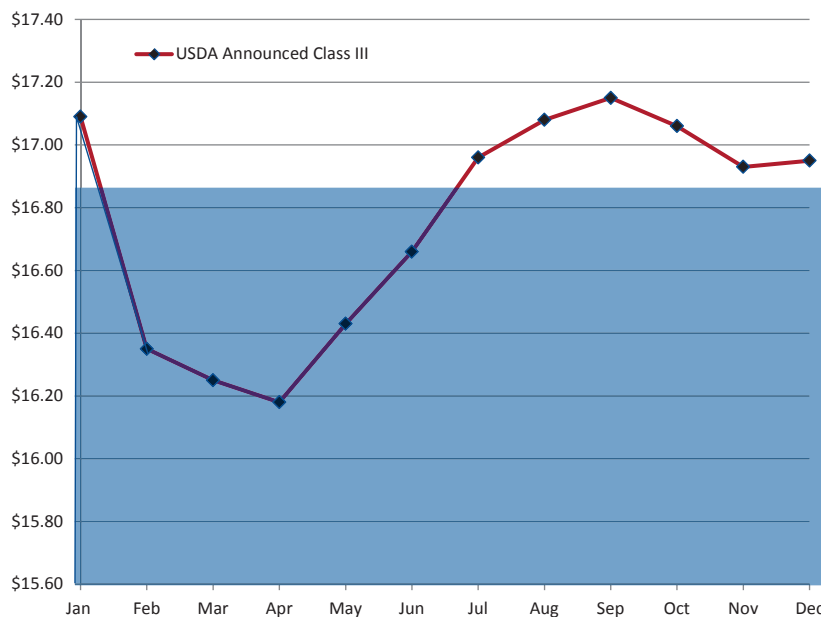
- Min Price (buying a “put”)
- Min/Max Price forward contract
- Upside Rider (buying a “call”)



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Fixed Price, Class III* Example

12 Month, Average Price, Fixed Forward Contract



Example IF
Class III then
Averaged
\$16.76

\$16.85 Contracted
For 2014 on
11/21/2013

* Class IV works
the same way



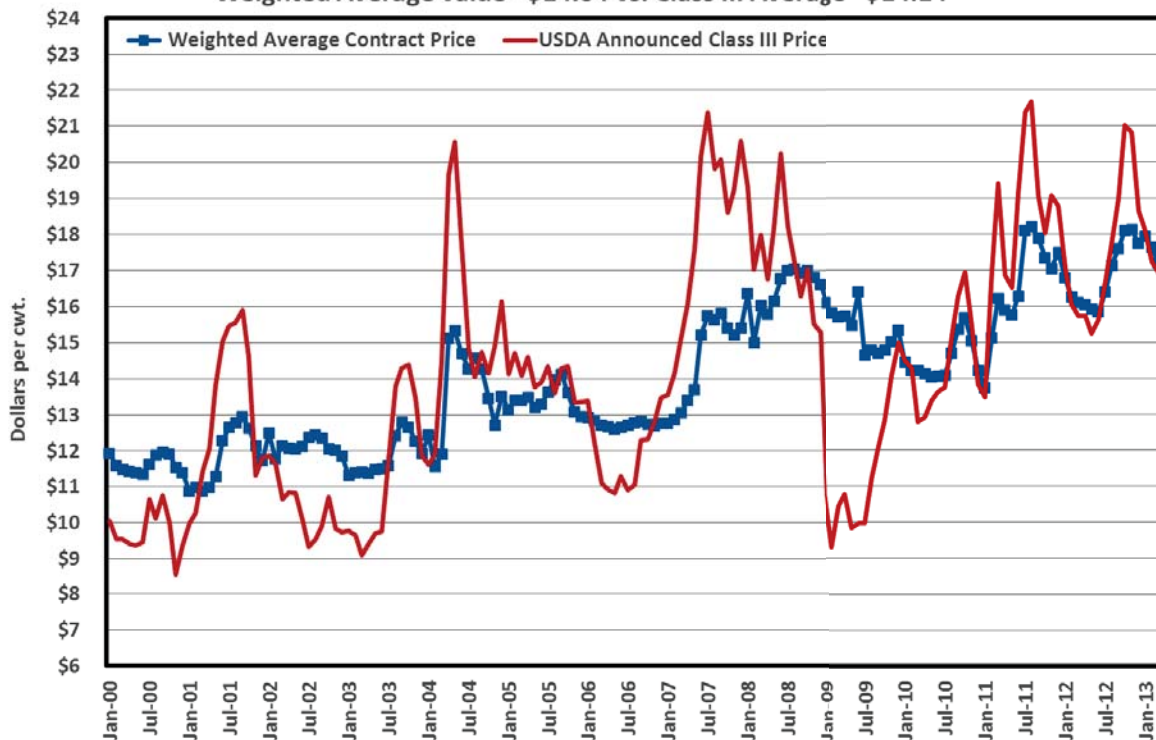
DFA Risk Management

How fixed contracts work over time



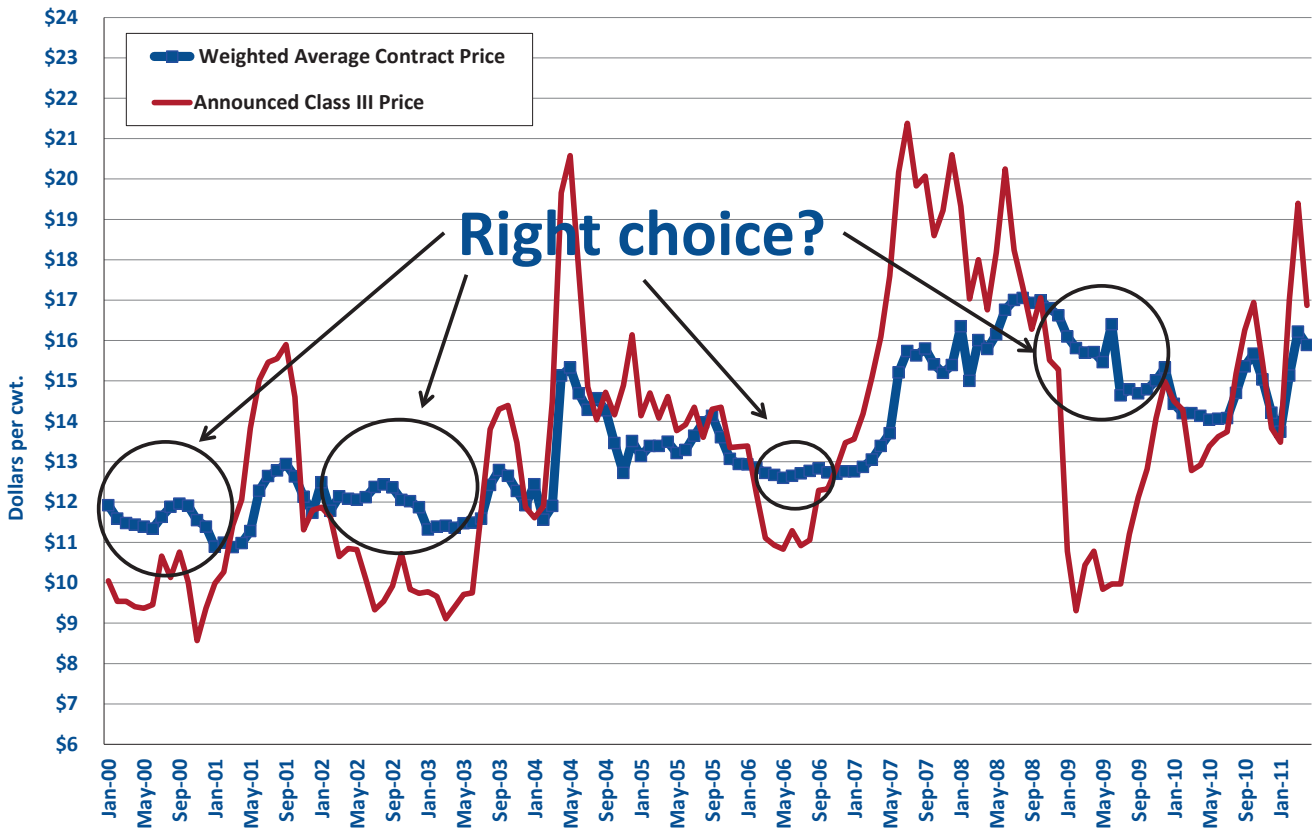
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DFA Risk Management Weighted Average Contract Prices
vs. USDA Announced Class III Prices thru Feb 2013
Weighted Average Value - \$14.04 vs. Class III Average - \$14.14

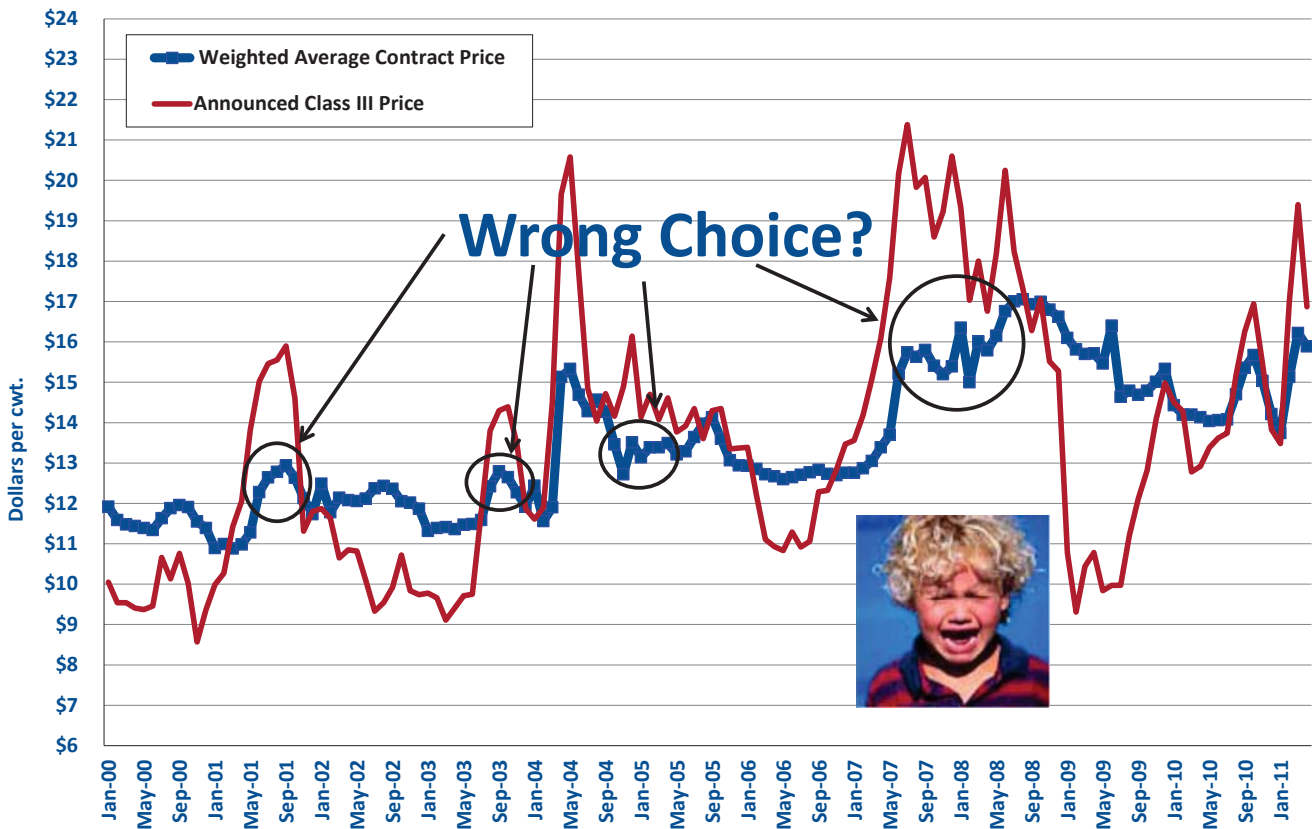


DFA Risk Management

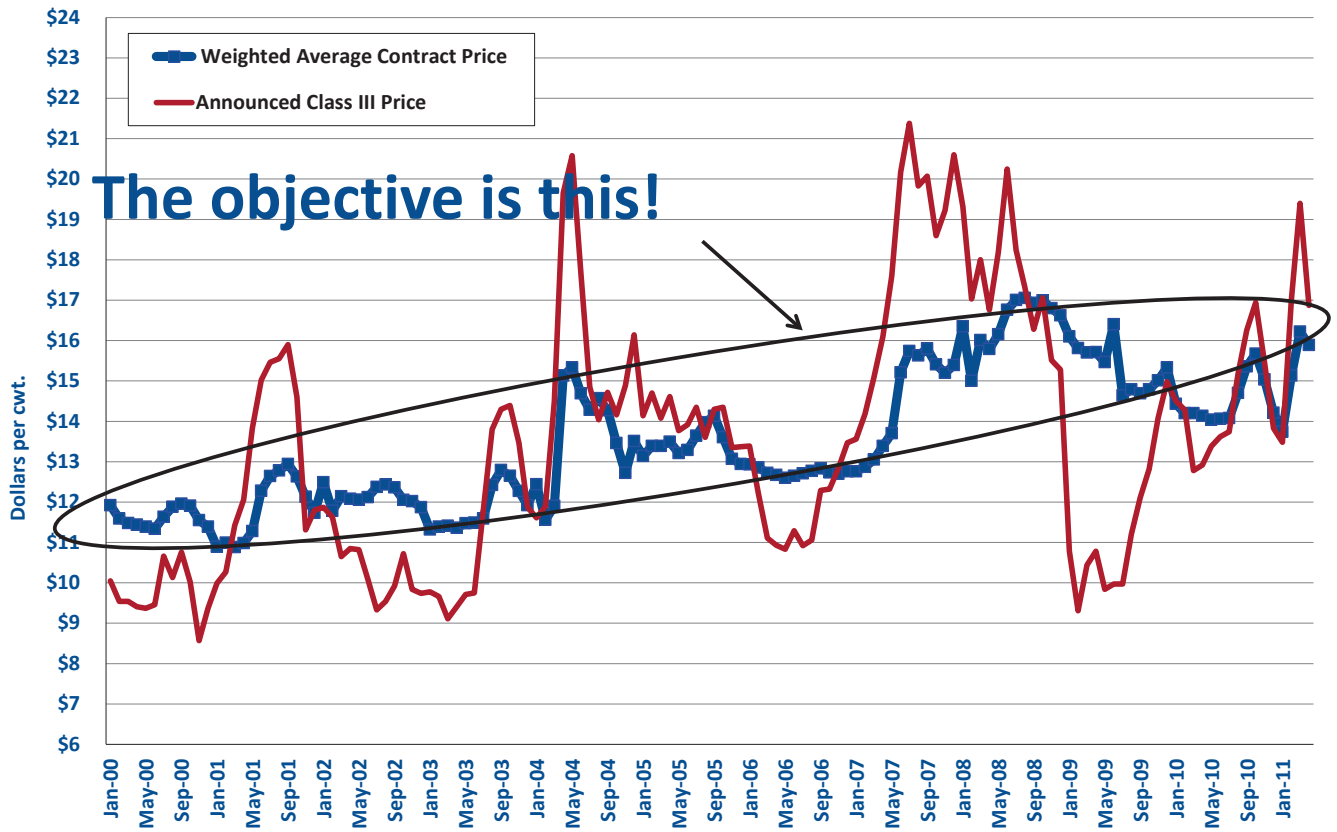
How do you measure success?



How do you measure success?



How do you measure success?



16 Month Price History for July 2012



Target Blend, Another Fixed Price Example

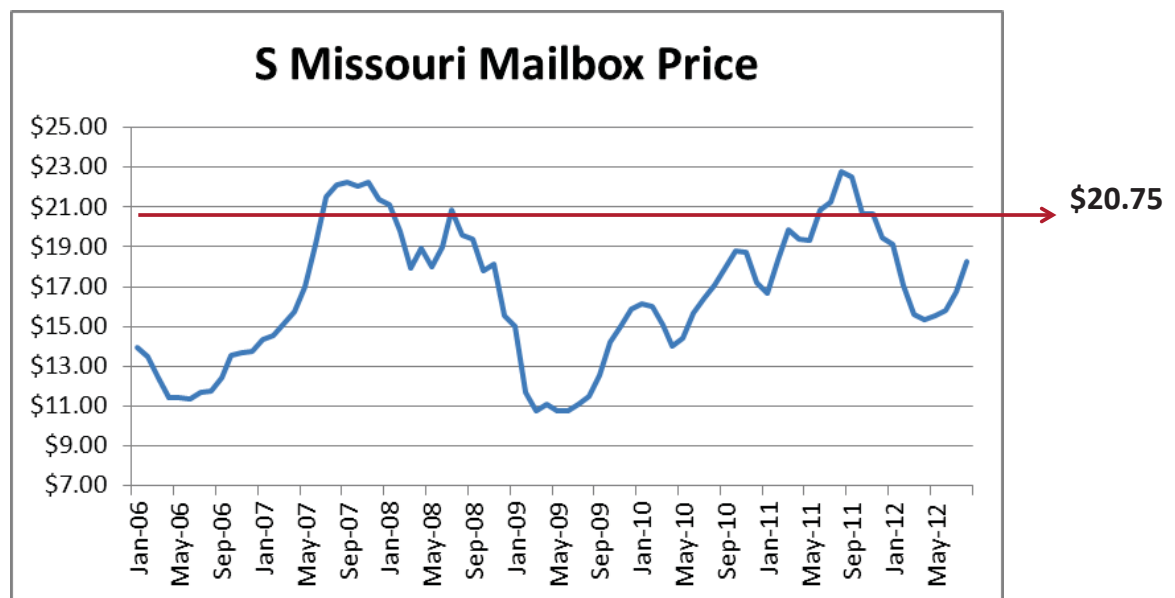
- Uses a combination of Class III and Class IV
- Creates opportunities to contract prices that are closer to actual farm price than Class III alone
- Reduces price swings traditionally associated with major changes in “Blend Basis”
- Protects from significant declines in both Class III and Class IV
- **6 month minimum**



DFA Risk Management

Fixed Target Blend Price

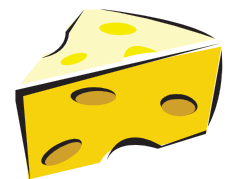
Target Blend for All 2014 (as of 11/21/2013): \$20.75 compared to the historic S Missouri mailbox price



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Target Blend Contract Availability

- Class IV futures volume is limited
- May be opportunities to contract Class IV with processor customers
 - processor offers now include calculation for Target Blends
- **Ability to write Blend Contract will depend on availability of Class IV contract interest**
- DFA Risk Management can also do just a mix of Class III & IV too



DFA Risk Management

Two Main Distinctions:



There are forward contracts that are **fixed**:

- Fixed Class III
- Fixed Class IV
- Target Blend

Other forward contracts act like a

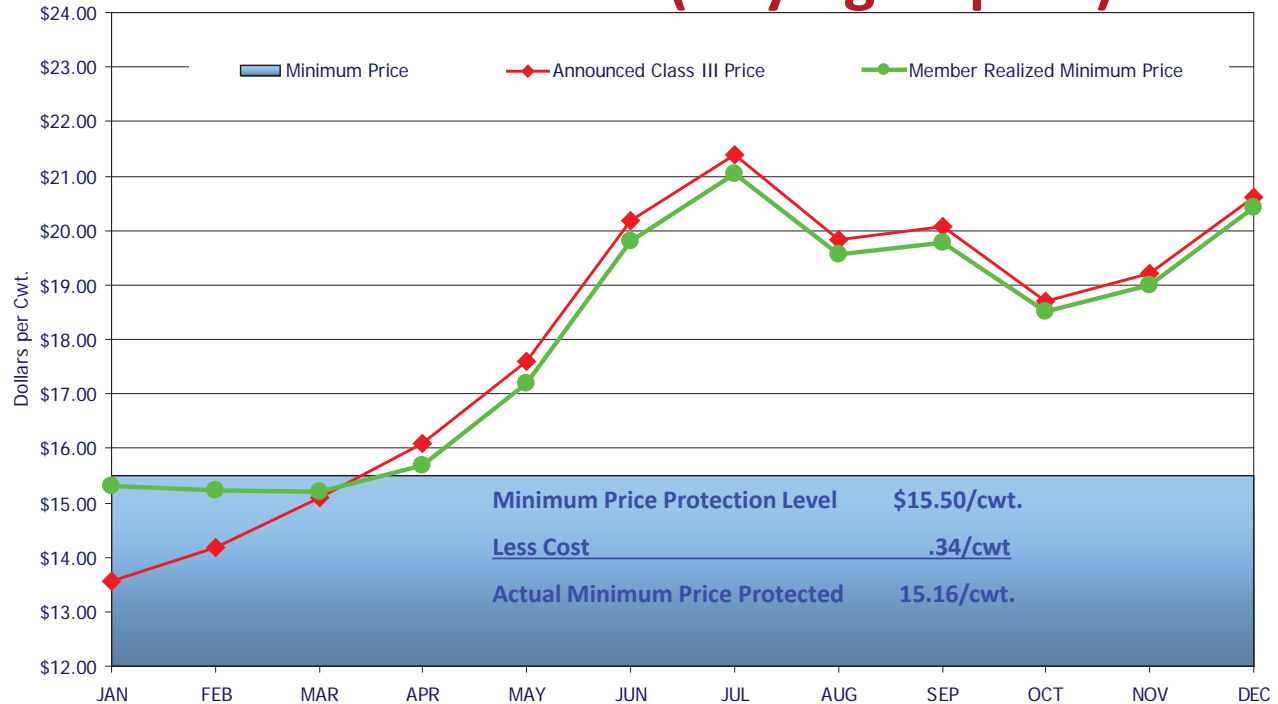
safety net:

- Min Price (buying a “put”)
- Min/Max Price forward contract
- Upside Rider (buying a “call”)



DFA Risk Management

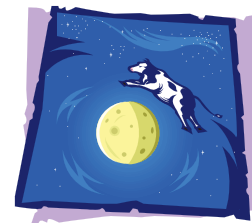
Safety Net Example; Minimum Price Forward Contract (buying a “put”)



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Minimum Price Contract (buying a put)



- Protects against a declining market
- Sets a floor for Class III (or IV) price
 - You set the floor price (.25 increments)
- Market prices higher than floor are paid
- Monthly premium per cwt contracted
 - Premium cost fluctuates daily on the CME
 - **Through the co-op, no “up front” charges**



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Min/Max Forward Contract

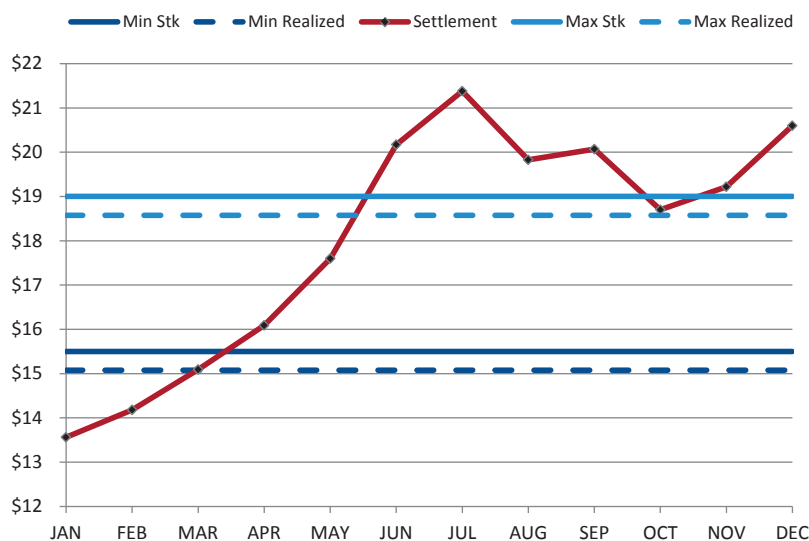


- **Set a floor and ceiling for Class III price**
 - The “ceiling” helps lower the cost
- **Creates a price window (collar, fence)**
- **Can be a lower cost alternative to Minimum Contract**
- **You “give up” any prices above the Maximum**
- **Can consider using an Upside Rider with this program**



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Safety Net Example: Min/Max Forward Contract

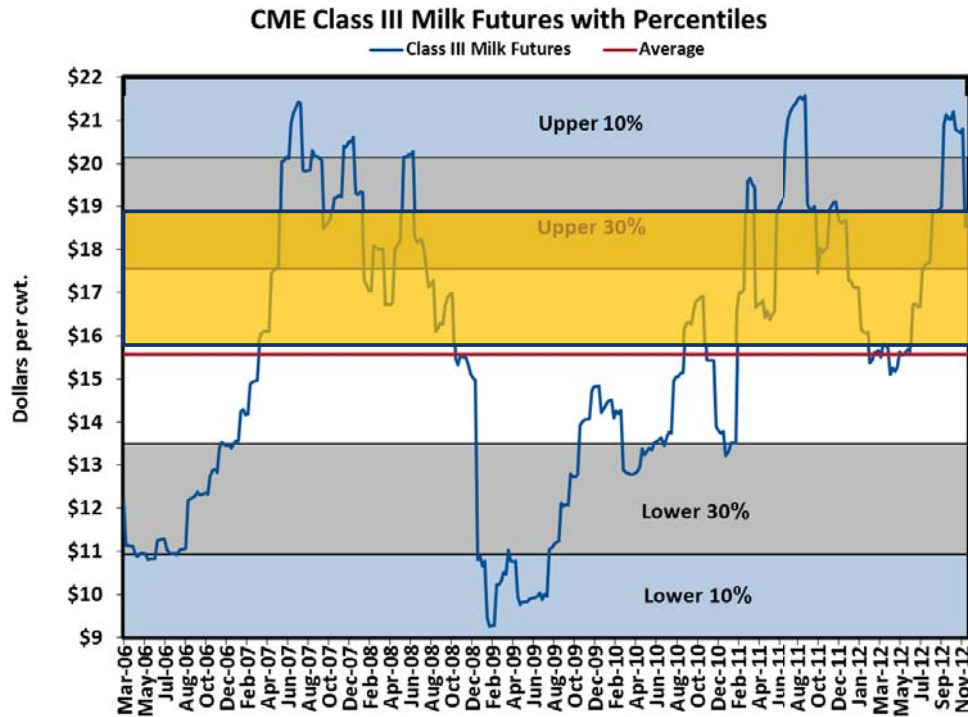


Example:
\$15.50/\$19 Min/Max
Costing \$.15 for CY 2014



DFA Risk Management

Safety Net Example: Min/Max Forward Contract



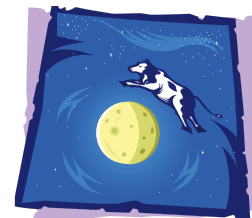
Example:
\$15.50/\$19 Min/Max
Costing \$.15 for
Jan 14 – Dec 14



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“Safety valve”: Upside Rider (buying a call)

- Generally used as an amendment to an existing contract
 - For example, you have a \$17 Fixed Contract for 2014 and then you could have bought a \$19 Upside Rider (call) for an additional \$.31 (as of 11/21/2013)
 - Can also be used with Min/Max
 - Rising prices increases cost



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Other Risk Management Tools . . .



DFA Risk Management

DFA Risk Management Feed Riders

Your Feed Source will Impact your Milk Hedging Strategy

GROWN

- Crop Insurance
- Pre-purchase inputs



or

PURCHASED

- Contract with suppliers
- Hedge with DFA/RM



Milk-Feed Margin Program

- Secure the margin between a Class III milk price and primary feed costs
- Done as single months only
- Shown daily in DFA Today and on the MyDFA website
- It's like selling your milk today and buying the feed today



DFA Risk Management

Your Source for Watching Margins

DFA Today

January 10, 2013



Daily Market Update

Dairy

- The CME cash cheese market experienced activity in the barrels with six lots traded with the price moving 1/2 cent lower. This is the sixth consecutive day that the barrel price has been unchanged or lower.
- CME Group Class III milk futures closed mixed with little fresh news in the market. The volume of barrel cheese brought to the market by sellers added a weaker tone to the Class III milk futures market.
- The lack of direction from the CME cash cheese market has resulted in the 2013 average Class III milk futures settling 10 cents lower since the beginning of the year.
- CME whey futures provided further downward pressure to Class III milk futures, with the majority of months settling lower on the day.

Grains

- USDA officials will release the January Crop Production report at 11 a.m. CST tomorrow versus the previous release time of 7:30 a.m. CST.
- The focal point for today's grain and oilseed complex activity was the adjustment of positions prior to tomorrow's USDA report. The complex closed mixed on the day with little movement in either direction.
- CME corn futures settled slightly higher as the market probed in an expectation of slightly lower revisions to the final 2012 U.S. corn production in tomorrow's report.
- CME soybean and soybean meal futures closed mixed within a relatively narrow range. The market weighed expectations of higher 2012 soybean production estimates with continuously strong international export demand.

MILC program update

The recent extension of the Farm Bill, signed by President Barack Obama last week, reinstated the Milk Income Loss Contract (MILC) program through August 31, 2013, at a payment rate of 45 percent, covering 2.985 million pounds of milk per year with a feed adjuster of \$7.95 per hundredweight. The extension provides for retroactive MILC payments for the September 2012–December 2012 timeframe at the above stated rate. While details and sign-up timelines have not been finalized, an announcement regarding the 2012–2013 MILC sign-up period is expected soon. USDA officials have stated they are committed to making the process farmer friendly. To view projections for possible MILC payments, visit www.nmfl.org/milk_pricing/milc_payments.

Dairy cow slaughter declines

Today, U.S. Department of Agriculture (USDA) officials released *Cow Slaughter Under Federal Inspection By Region and U.S. Total* report. For the week ending December 29, there were 43,100 dairy cows culled. This is 8,400 head (16.3 percent) less compared to the previous year, marking the first time in 34 weeks that cow slaughter has declined from last year. Year to date, 3.1 million dairy cows have been culled, up 17,500 head (0.1 percent) from the same period last year.

For states east of the Mississippi River, culling totaled 21,800 head, down 6,100 (22.3 percent) from the previous year. The states west of the Mississippi River culled 21,800 head for the week ending December 29. This is 2,200 head (9.5 percent) less compared to the same period last year.

Dairy		Dairy		Grains		Other Markets	
Cash	Change	Monthly	Change	Monthly	Change	Monthly	Change
Blocks	\$1,720.00	Jan-13	\$1,767.00	Jan-13	\$6,975.00	Jan-13	\$93.82
Earned	\$1,895.00	Jan-13	\$1,825.00	Jan-13	\$6,750.00	Jan-13	\$105.43
Butter	\$1,445.00	Jan-13	\$1,445.00	Jan-13	\$6,950.00	Jan-13	\$1,150.00
Class III Futures	\$18.07	Jan-13	\$18.07	Jan-13	\$1.75	Jan-13	\$1.75
Class III Milk-Feed Margin	\$11.29	Jan-13	\$11.29	Jan-13	\$1.75	Jan-13	\$1.75
Commodity	\$1.22	Jan-13	\$1.22	Jan-13	\$1.22	Jan-13	\$1.22
Butter	\$1.50	Jan-13	\$1.50	Jan-13	\$1.50	Jan-13	\$1.50
Dry whey	\$0.27	Jan-13	\$0.27	Jan-13	\$0.27	Jan-13	\$0.27
Whey	\$0.27	Jan-13	\$0.27	Jan-13	\$0.27	Jan-13	\$0.27
Energy	\$1.22	Jan-13	\$1.22	Jan-13	\$1.22	Jan-13	\$1.22
Crude Oil	\$93.82	Jan-13	\$93.82	Jan-13	\$93.82	Jan-13	\$93.82
Heating Oil	\$105.43	Jan-13	\$105.43	Jan-13	\$105.43	Jan-13	\$105.43
Natural Gas	\$1,150.00	Jan-13	\$1,150.00	Jan-13	\$1,150.00	Jan-13	\$1,150.00
Dollar Index	79.877	Jan-13	79.877	Jan-13	79.877	Jan-13	79.877
DJA	13,471	Jan-13	13,471	Jan-13	13,471	Jan-13	13,471
S&P 500	1,072.00	Jan-13	1,072.00	Jan-13	1,072.00	Jan-13	1,072.00
Live & Feeder Cattle	\$1.22	Jan-13	\$1.22	Jan-13	\$1.22	Jan-13	\$1.22

To contact DFA Risk Management, call 1-877-424-3343 or visit www.dfa.com/riskmanagement. If you would like to receive DFA Today, change how you receive DFA Today or stop receiving DFA Today, send your name, membership number and fax number or email address to marketingteam@dfamilk.com or fax to 816-601-6453.



DFA Risk Management

MILK / FEED MARGIN SETTLEMENTS

CME Group Settlements as of Thursday, January 10, 2013

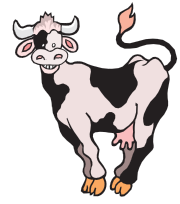
Class III Contract Month	Class III Price (\$ per cwt.)	Corn Month	Corn (\$ per bu.)	Soybean Meal Month	Soybean Meal Price (\$ per ton)	Primary Feed Value (\$ per cwt.)	Non-Primary Feed Margin (\$ per cwt.)
Dec-12	\$17.97	Mar-13	\$7.5275	Jan-13	\$434.9000	\$13.29	\$4.55
Jan-13	\$18.04	Mar-13	\$6.9850	Mar-13	\$419.4000	\$12.50	\$5.41
Feb-13	\$18.35	Mar-13	\$6.8900	Mar-13	\$409.2000	\$12.28	\$5.94
Mar-13	\$18.31	May-13	\$6.8750	May-13	\$401.6000	\$12.18	\$6.00
Apr-13	\$18.39	May-13	\$6.8750	May-13	\$401.6000	\$12.18	\$6.04
May-13	\$18.56	Jul-13	\$6.7850	Jul-13	\$397.3000	\$12.03	\$6.36
Jun-13	\$18.07	Jul-13	\$6.7850	Jul-13	\$397.3000	\$12.03	\$6.47
Jul-13	\$18.65	Sep-13	\$5.9675	Aug-13	\$389.6000	\$11.00	\$7.45
Aug-13	\$18.53	Sep-13	\$5.9675	Sep-13	\$377.8000	\$10.88	\$7.45
Sep-13	\$18.20	Dec-13	\$5.7450	Oct-13	\$363.7000	\$10.47	\$7.63
Oct-13	\$18.21	Dec-13	\$5.7450	Dec-13	\$362.5000	\$10.46	\$7.55
Nov-13	\$18.10	Dec-13	\$5.7450	Dec-13	\$362.5000	\$10.46	\$7.39
Dec-13	\$18.04	Mar-14	\$5.8450	Jan-14	\$363.1000	\$10.58	\$7.21
Jan-14	\$17.90	Mar-14	\$5.8450	Mar-14	\$366.3000	\$10.62	\$7.03
Feb-14	\$17.30	Mar-14	\$5.8450	Mar-14	\$366.3000	\$10.62	\$6.43
Mar-14	\$17.13	May-14	\$5.9175	May-14	\$367.7000	\$10.72	\$6.11
Apr-14	\$16.16	May-14	\$5.9175	May-14	\$367.7000	\$10.72	\$5.14
May-14	\$16.07	Jul-14	\$5.9550	Jul-14	\$371.0000	\$10.79	\$4.98
Jun-14	\$16.00	Jul-14	\$5.9550	Jul-14	\$371.0000	\$10.79	\$4.91
Jul-14	\$15.77	Sep-14	\$5.7400	Aug-14	\$370.4000	\$10.54	\$4.93
Aug-14	\$15.77	Sep-14	\$5.7400	Sep-14	\$370.4000	\$10.54	\$4.93
Sep-14	\$15.42	Dec-14	\$5.6200	Oct-14	\$370.4000	\$10.40	\$4.72
Oct-14	\$15.26	Dec-14	\$5.6200	Dec-14	\$353.6000	\$10.22	\$4.74
Nov-14	\$15.18	Dec-14	\$5.6200	Dec-14	\$353.6000	\$10.22	\$4.66

Primary Feed Value = (corn price per bu. X 35.71 X .03244) + (soy price X .03105)

Non-Primary Feed Margin = Class III - Primary Feed Value

Prices listed above are based on published CME prices for the date listed and are not actual contract offers. DFA does not make, and expressly disclaims, any express or implied guaranty, representation, or warranty regarding any opinions or statements set forth herein. DFA is not acting as your consultant or advisor, or in a fiduciary capacity, for any purpose, and is not providing advice regarding the value or advisability of trading in commodity interests, including swaps, futures contracts and commodity options or any other activity which would cause DFA or any of its affiliates to be considered a commodity trading advisor under the Commodity Exchange Act. None of the information contained herein should be construed as trading or risk management advice. Before undertaking any trading strategy, you (and your customers or members) should consult your own independent advisors. If you are interested in forward contracting with DFA RM, please call 1-877-424-3343 to discuss current offerings.





How do I get started?

- DFA members can call DFA/RM and we will send you a *Master Agreement* (or you can establish a relationship with a broker)
- Return signed *Master Agreement* to DFA/RM
- Once you're in the system, just call DFA/RM to place and order
- Orders can be revised/cancelled as long as they have not been "filled"



DFA Risk Management

Milk Contracting Details

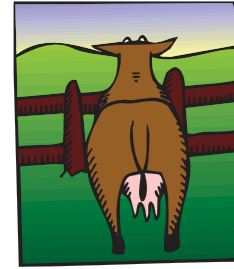
- Forward contracts can be for Class III, Class IV, options, and a variety of combinations
- Can be for one month or up to 24 months*
- Can place multiple, single month orders – or - groups of months, done as an average
- Some producers have several contracts in any given month, resulting is several different prices
 - A CME contract is 200,000 pounds
 - DFA/RM Minimum = 20,000 pounds and in 5,000 pound increments

* More distant months may have limited activity



DFA Risk Management

Your Obligation



- Your forward contract is an agreement to deliver a stated volume of milk for the agreed upon month(s) at the agreed upon price plus applicable basis and agreement by your coop to market your milk, provided it meets the required quality and delivery requirements.



DFA Risk Management

Information Sources:

DFA Today
Wednesday, May 25, 2011
Fuel Prices Decrease
According to U.S. Energy Information Administration officials, the average gasoline price...

DFA Dairy Farmers of America
Dairy Commodity Markets & Industry News
CME Daily Cash Prices
Today Previous Change Trades
Blocks \$1.7800 \$1.7400 4.00 ¢ 1
Bareils \$1.7550 \$1.7400 1.50 ¢ 0

WEEKLY Pricing Update
Friday, April 27, 2012
Market Headlines
• Spot blocks ended the week 1 cent higher while the cash barrel market declined 3.5 cents.
• Cattle futures recovered late in the week as concerns over the recent case of BSE begin to subside.
• Grains rallied this week supported by the surge in cash prices, coupled with news of strong Chinese export demand.

DFA Risk Management
Weekly Chart Spotlight
Weekly Chart of Class III Milk Price (¢/cwt) from 2007 to 2012. The chart shows a significant peak in early 2008 followed by a sharp decline and subsequent recovery.

Minimum/Maximum Contracts											
May - December 2012 Class III Min/Max Table					July - December 2012 Class III Min/Max Table						
Maximum	\$14.00	\$14.25	\$14.50	\$14.75	\$15.00	Maximum	\$14.00	\$14.25	\$14.50	\$14.75	\$15.00
\$17.00		(0.18)	(0.26)	(0.39)		\$17.50		(0.18)	(0.25)	(0.36)	
\$17.25	(0.12)	(0.21)	(0.29)	(0.42)		\$17.75	(0.13)	(0.22)	(0.30)	(0.41)	
\$17.50	(0.10)	(0.25)	(0.33)	(0.48)		\$18.00	(0.11)	(0.18)	(0.27)	(0.34)	(0.45)
\$17.75	(0.14)	(0.19)	(0.28)	(0.37)	(0.50)	\$18.25	(0.14)	(0.21)	(0.30)	(0.38)	(0.49)
\$18.00	(0.17)	(0.23)	(0.32)	(0.40)	(0.53)	\$18.50	(0.18)	(0.25)	(0.34)	(0.41)	(0.53)

Fixed Price Contracts										Minimum Price Contracts		
Months	Class III	Weekly	Class IV	Weekly	Milk-Feed	Weekly	Months	Class III	Class III	Class III		
	(\$ per cwt.)	Change	(\$ per cwt.)	Change	Margin	Change		\$2.00	\$2.35	\$2.50		
May12-Jul12	14.46	¢ (0.45)	13.80	¢ (0.89)	2.97	¢ (0.77)	May12-Jul12	(0.34)	(0.51)	(0.75)		
May12-Dec12	15.21	¢ (0.26)	14.90	¢ (0.31)	4.45	¢ (0.71)	May12-Dec12	(0.34)	(0.49)	(0.70)		
Jul12-Dec12	15.50	¢ (0.34)	14.75	¢ (0.75)	5.07	¢ (0.73)	Jul12-Dec12	(0.35)	(0.52)	(0.70)		

Upside Riders									
Months	Class III	Class III	Class III						
May12-Jul12	(0.14)	(0.10)	(0.14)						
May12-Dec12	(0.40)	(0.54)	(0.44)						
Jul12-Dec12	(0.68)	(0.54)	(0.44)						

Want more information on how DFA Risk Management can help you? Call 1-877-424-3343

Prices shown are based on OMB futures and option activity for the date listed and are not actual contract offers. DFA does not make, and does not provide, any express or implied guarantee, representation, or warranty regarding any options or statements set forth herein. DFA is not acting as your consultant or advisor for any purchase and/or marketing activity. *Representative value or disclaimer of trading in commodity markets. Includes futures contracts and commodity options or any other activity which would cause DFA or any of its affiliates to be considered a commodity trading advisor under the Commodity Exchange Act. Some of the information contained herein should be obtained by trading in risk management advice.

DFA Risk Management

- www.dfariskmanagement.com, your basis report, links to the CME, cool tools, and more!
- DFA Today: free, daily e-mail or fax
- DFA/RM Pricing Update: free, weekly summary e-mail or fax
- Twitter feed for daily cheese market results to your cell.
- Mobile website too
- CME has an extensive website

Additional thoughts:

- Don't need to do all at once, you can have multiple contracts for any given month; "The only way any of us will ever be 100% right or wrong is to sell everything in one day. Don't do it!" The Brock Report, 1/6/2012



- In my opinion, forward contracting should be an on-going activity; stay informed on current market conditions

Questions?

- **Why don't my *target orders* fill?**
 - Offering above current levels?
- **What is a *margin account*?**
- **Why can't I get *high of the day*?**
- **What's the difference between doing months *individually* or as an *average*?**





Any Questions?

ebiggers@dfamilk.com

DFA Risk Management 877-424-3343

www.dfariskmanagement.com



DFA Risk Management

- **Following slides are just additional material**



DFA Risk Management

Feed Rider Forward Contracts

- Done as single months only
- Members can select corn and/or soybean meal quantities to hedge
 - There are quantity limits though (1,100 bu corn or 10 tons soybean meal per 100,000# milk)
- DFA/RM now offers price protection on corn and soybean meal
 - Fixed Price
 - Maximum Price



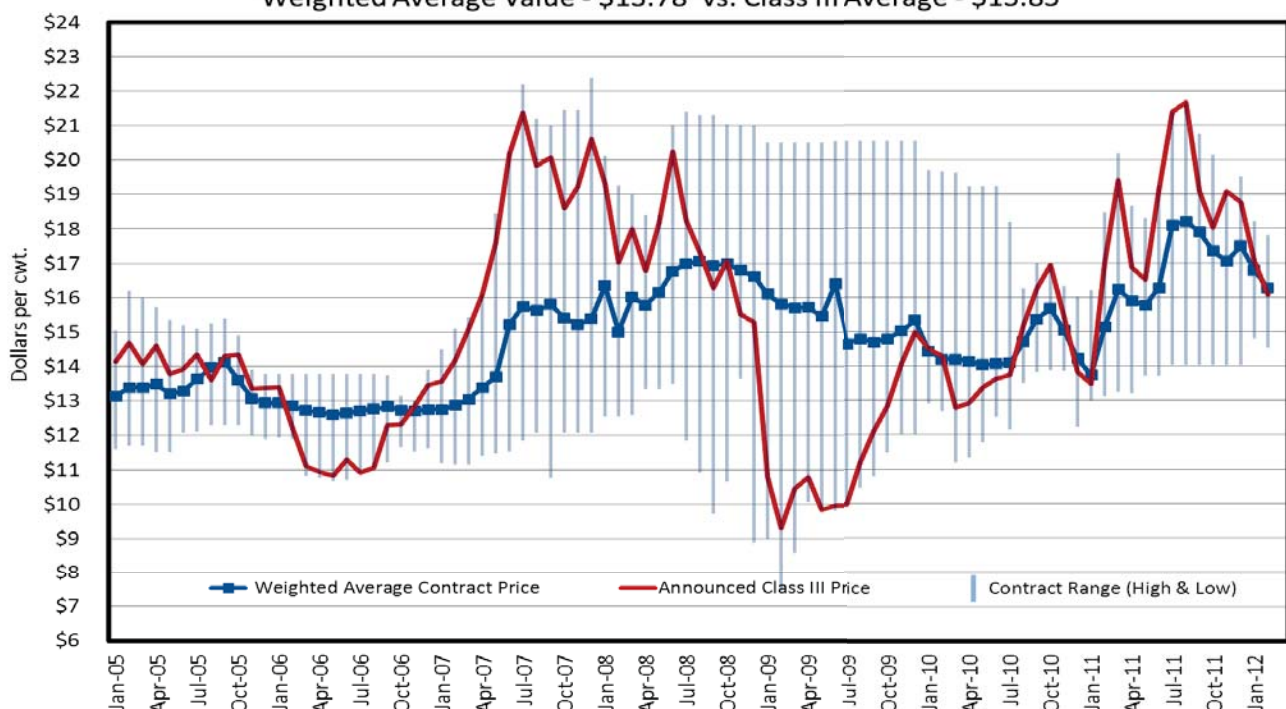
DFA Risk Management



DFA's Risk Management Weighted Average Contract Prices vs. USDA Announced Class III Prices



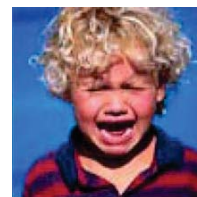
January 2005 through February 2012 - Contract Ranges Reflected
 Weighted Average Value - \$13.78 vs. Class III Average - \$13.85



DFA Risk Management

Understanding Basis Variability

- It's not Basis Variation that will hurt you but it's the lack of understanding and an unrealistic expectation of what your basis will be:
- \$19 contracted + \$4 expected basis = \$23
... however ...
- \$19 contracted + \$2 actual basis = \$21!





Livestock Gross Margin

Dairy Cattle
July 2011

Livestock Gross Margin (LGM)

LGM-Dairy Cattle (LGM Dairy) provides protection against loss of gross margin (market value of milk minus feed costs) on milk produced from dairy cows. LGM-Dairy uses the Chicago Mercantile Exchange Group futures prices for corn, soybean meal, and class III milk to determine the expected gross margin and the actual gross margin.

Producer **premium subsidy** is available for the LGM-Dairy plan of insurance and is determined by the deductible amount chosen by the producer. All administrative and operating subsidies are paid by the Federal Crop Insurance Corporation.

The **indemnity** at the end of the 11-month insurance period is the difference, if positive, between the gross margin guarantee and the actual gross margin. The price the producer receives at the local market is not used in these calculations.

Availability

LGM is available to any producer who owns dairy cattle in the 48 contiguous states.

Milk Coverage Availability

Only milk sold for commercial or private sale primarily intended for final human consumption from dairy cattle fed in any of the eligible states is eligible for LGM Dairy coverage. There is no minimum number of hundredweights a producer can insure. However, the maximum amount of milk that can be insured is 24 million pounds per crop year.

Coverage Levels/Deductibles

Producers can select deductible levels between \$0 and \$2.00 per hundredweight of milk in \$0.10 increments.

Sales Closing

To enroll, producers must sign-up on the last business Friday of the month, submitting an application with a target marketing report for the milk and corn and soybean meal equivalents to be insured.

Prices

Prices for LGM Dairy are based on simple averages of futures contract daily settlement prices, and are **not** based on the prices the producer receives at the market.

Insurance Months

The insurance period contains the 11 months following sales closing. For example, the insurance period for the January 29 sales closing date contains the months of February through December. However, coverage begins in the second month of the insurance period, so the coverage period for this example is the months of March through December.

LGM Selling Period

LGM Dairy is sold on the **last business Friday** of each month. The sales period begins as soon as RMA reviews the data submitted by the owner and developer of LGM-Dairy after the close of markets on the last day of the price discovery period. The sales period ends at 8:00 p.m. CST the following evening. If expected milk and feed prices are not available on the RMA Web site, LGM Dairy will not be offered for sale for that insurance period.

Annual Premium

LGM premiums depend on producers' marketing plan, deductible level, futures and price volatility. Premium billing dates are determined by the target marketing report and will be the first business day of the month following the last month that a producer reports their insured marketings in the target marketings report.

Cause of Loss

LGM Dairy covers the difference between the gross margin guarantee and the actual gross margin. LGM Dairy does **not** insure against dairy cattle death loss, unexpected decreases in milk production, or unexpected increases in feed use. Indemnities to be paid will equal the difference between the gross margin guarantee and the actual total gross margin for the insurance period.

LGM Dairy Advantages

Convenience: Producers can sign up for LGM Dairy 12 times per year and insure all their milk production they expect to market over a rolling 11-month insurance period.

Customization: Can be tailored to any size farm.

Bundled Option Insurance: LGM Dairy is similar to buying both a call option to limit higher feed costs and a put option to set a floor on milk prices.

What LGM Dairy Does Not Insure

- Risk of dairy cattle death
- Unexpected production (milk) losses
- Unexpected increase in feed use
- Anticipated or multiple-year declines in milk prices
- Anticipated or multiple year increases in feed costs

Definitions

Actual Marketings The total amount of milk sold by you in each month of the insurance period and for which you have proof of sale. Actual marketings are used to verify ownership of milk and determine approved target marketings.

Deductible The portion of the expected gross margin that you elect not to insure. Per cwt deductible amounts range from zero to \$2.00 per cwt in 10 cent increments. The deductible equals the selected per cwt deductible times the sum of target marketings across all months of the insurance period.

Gross Margin Guarantee The gross margin guarantee for an insurance period is the expected total gross margin for an insurance period minus the deductible.

Marketing Report A report submitted by you on our form showing for each month your actual marketings for that month of milk insured under the policy. The marketing report must be accompanied by copies of sales receipts that provide records of the actual marketings shown on the marketing report.

Target Marketings Your determination as to the number of cwt of milk you elect to insure in each month during the insurance period.

Target Marketings Report A report submitted by you on our form showing for each month your target marketings for that month.

For More Information

LGM Coverage Prices, Rates and Actual Ending Values:

http://www3.rma.usda.gov/apps/livestock_reports/

Cost Estimator (Premium Calculator):

<http://ewebapp.rma.usda.gov/apps/costestimator/>

Where to Purchase

All multi-peril crop insurance policies are available from private insurance agents. A list of livestock insurance agents is on the RMA Web site at:

<http://www3.rma.usda.gov/tools/agents/>

Download Copies from the Web

Visit our online publications/fact sheets page at:


<http://www.rma.usda.gov/pubs/rme/fctsht.html>

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NASS:Missouri Field Office x Understanding Dairy Markets x
 future.aae.wisc.edu/lgm_dairy.html

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Your Source for Market Information and Price Risk Management Principles

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Livestock Gross Margin Insurance for Dairy Cattle

This section of our website provides information concerning the *Livestock Gross Margin for Dairy (LGM-Dairy)* program made available by the [Risk Management Agency](#) of USDA. The site will be under construction over the next few months as new information becomes available and related new materials are added. Please come back often to see what's new.

As with other sections of this website by clicking on an active link, you may generate an expanded menu. To make this menu disappear, click on the link again. If you have material that you think you would find useful please contact [Prof. Brian W. Gould](#) with your suggestions.

The material contained within this site is for informational and research purposes only. The official website concerning material related to the *Livestock for Gross Margin for Dairy* program is the USDA Risk Management Agency website (<http://www.rma.usda.gov>).

- [Sign-up for the LGM-Dairy Mailing List](#)
- [List of LGM-Dairy Providers](#)
- [Background Material Made Available by the RMA](#)
This is a collection of information provided by USDA as to introduce the LGM-Dairy program
- [Supporting Software](#)
This is a collection of spreadsheet and other software used to exemplify the use of LGM-Dairy
- [Underlying Data](#)
This is a collection of data used in the implementation of LGM-Dairy
- [Additional Material Explaining LGM-Dairy](#)
This section contains background material related to LGM-Dairy

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http://future.aae.wisc.edu/lgm_dairy.html

NASS:Missouri Field Office x Understanding Dairy Markets x
 future.aae.wisc.edu/tutor/

Apps For quick access, place your bookmarks here on the bookmarks bar. [Import bookmarks now...](#)

Dairy Futures and Options Tutorial


- Tutorial Overview
- Definitions
- Classified Pricing of Milk [+]
- An Overview of Dairy
- Futures [-]
- Understanding Hedging [-]
- More Information about Basis
- Understanding Options [-]
 - Dairy Based Options
 - Types of Options
 - Sellers and Buyers
 - Option Owner Rights
 - Options as Price Insurance
 - Examples of the Use of Options
 - Strike Price
 - Option Premiums
 - Option Intrinsic Value
 - Strike Price and Contract Price Relationship
 - Factors Affecting Premiums
 - Establishing a Floor Price
 - Establishing a Cost Ceiling
 - Put Option vs Short Hedge
 - Call Option vs Long Hedge
 - Option Advantages
- Advanced Hedging and Options Strategies [+]
- Price Determination
- Benchmarks
- Price History
- Additional Readings
- Study Questions
- Spreadsheet Files

Managing Price Risk

A Tutorial in Dairy Futures and Options

The material contained in these pages provide an introduction in the use of dairy-based futures and options for managing price risk. This material will be useful for dairy farm operators, dairy processors and users of dairy-based ingredients who want to reduce their price risk.

Throughout this workbook, you can choose from a number of interactive tutorials to hopefully provide a better understanding of the concepts. If after working through these exercises, you continue to have questions, feel free to contact Prof. Brian W. Gould of the Department of Agricultural and Applied Economics for further information.

Throughout the tutorial there are graphical representations of important concepts. You will need an Adobe Acrobat Reader to view these images. If you do not have a PDF reader, you can download a free reader from Adobe by clicking on the following: 

In several sections of this tutorial you have the opportunity to work through examples illustrating the principles behind the use of futures and options. There are several rules which must be followed when inputting values:

- Cells with downward pointing arrows require you to select from pre-defined choices if you wish to override the default values.
- A cell where the number 0 is displayed identifies a calculated cell and does not require user input. These values will change automatically as you through the worksheet.
- Cells that are blank require you to input values.
- Within a worksheet you must enter values in the user-supplied cells in the order they appear in the worksheet. You are not allowed to skip around. If you do, you may obtain incorrect answers.

<http://future.aae.wisc.edu/tutor/>

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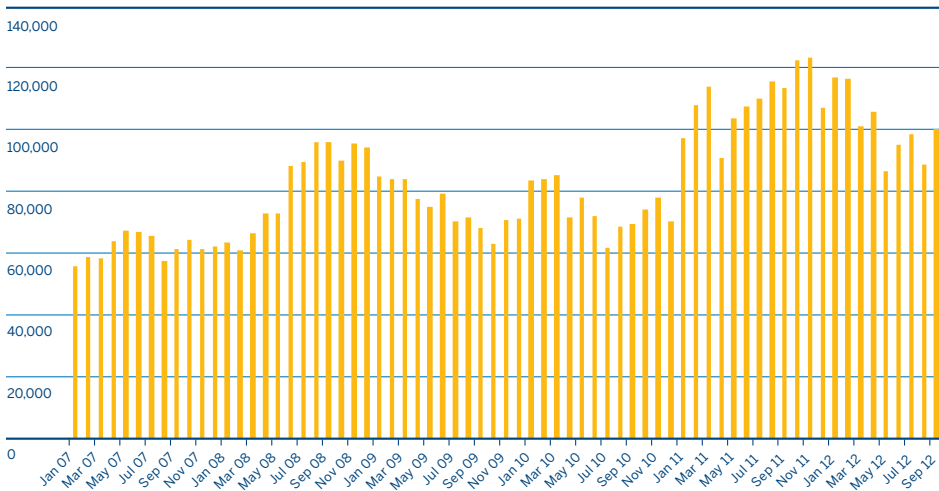
Dairy Futures and Options

Offering participants in the U.S. dairy business a useful tool in managing the price risks inherent to this industry.

Contracts

Class III Milk, Class IV Milk, Dry Whey, Cash-settled Nonfat Dry Milk, Cheese and Cash-settled Butter futures and options trade virtually 24 hours a day on the CME Globex electronic trading platform. In addition, Class III Milk, Class IV Milk and Cash-settled Nonfat Dry Milk futures and options also trade on the CME Group trading floor during regular trading hours. CME Group Dairy contracts are cash-settled.

Class III Milk Total Open Interest Futures and Options



BENEFITS

- » Management of price risk and engagement in price discovery related to dairy products
- » Around-the-clock access to electronic contracts
- » CME Globex pack functionality allows the execution of multiple consecutive contract months in a single transaction



Access to Dairy Quotes

- » Sign up for real time quotes at cme-equotes.com.

Contract Name	Class III Milk Futures	Class III Milk Options
Trading Unit	200,000 lbs. of Class III Milk (≈ 90 metric tons)	One Class III Milk futures contract
Product Description	Class III Milk	N/A
Pricing Unit	Cents per hundredweight (cwt)	Cents per cwt
Minimum Fluctuation	\$0.01 per cwt (= \$20.00 per contract)	Full Tick: \$0.01 per cwt (= \$20.00 per contract) Half Tick: \$0.005 per cwt (= \$10.00 per contract)
Daily Price Limits	\$0.75 per cwt above or below the previous day's settlement price	None
Trading Venue	CME Globex (electronic platform) Open Outcry (trading floor)	CME Globex (electronic platform) Open Outcry (trading floor)
Trading Hours (CT)	CME Globex: Sunday at 5:00 p.m. through Friday at 1:55 p.m. with daily trading halts from 4:00 p.m. – 5:00 p.m. Open Outcry: Monday through Friday from 9:05 a.m. – 1:10 p.m. (LTD 12:10 p.m.)	CME Globex: Sunday at 5:00 p.m. through Friday at 1:55 p.m. with daily trading halts from 4:00 p.m. – 5:00 p.m. Open Outcry: Monday through Friday from 9:05 a.m. – 1:12 p.m. (LTD 12:10 p.m.)
Last Trade Date/Time (CT)	Trading shall terminate on the business day immediately preceding the day on which the USDA announces the Class III price for that contract month (LTD 12:10 p.m.).	Trading shall terminate on the business day immediately preceding the day on which the USDA announces the Class III price for that contract month (LTD 12:10 p.m.).
Contract Listing	24 calendar months	24 calendar months
Settlement Procedure	Cash-settlement See CME Rule 5203.A	N/A
Strike Price Intervals	N/A	All contract months: \$0.25 intervals See CME Rule 52A01.E
Exercise Procedure	N/A	American-style See CME Rule 52A02
Position Limits	Non-spot: 1,500 contracts in any contract month Spot: N/A All months combined: N/A See CME Rule 5202.E	Non-spot: 1,500 futures-equivalent contracts in any contract month Spot: N/A All months combined: N/A See CME Rule 52A01
Ticker Symbol	CME Globex = DC Open Outcry = DA Clearing = DA	CME Globex = DC Open Outcry = DA Clearing = DA
CME Rulebook Chapter	52	52A

Contract Name	Class IV Milk Futures	Class IV Milk Options
Trading Unit	200,000 lbs. of Class IV Milk (≈ 90 metric tons)	One Class IV Milk futures contract
Product Description	Class IV Milk	N/A
Pricing Unit	Cents per cwt	Cents per cwt
Minimum Fluctuation	\$0.01 per cwt (= \$20.00 per contract)	Full Tick: \$0.01 per cwt (= \$20.00 per contract) Half Tick: \$0.005 per cwt (= \$10.00 per contract)
Daily Price Limits	\$0.75 per cwt above or below the previous day's settlement price	None
Trading Venue	CME Globex (electronic platform) Open Outcry (trading floor)	CME Globex (electronic platform) Open Outcry (trading floor)
Trading Hours (CT)	CME Globex: Sunday at 5:00 p.m. through Friday at 1:55 p.m. with daily trading halts from 4:00 p.m. – 5:00 p.m. Open Outcry: Monday through Friday from 9:05 a.m. – 1:10 p.m. (LTD 12:10 p.m.)	CME Globex: Sunday at 5:00 p.m. through Friday at 1:55 p.m. with daily trading halts from 4:00 p.m. – 5:00 p.m. Open Outcry: Monday through Friday from 9:05 a.m. – 1:12 p.m. (LTD 12:10 p.m.)
Last Trade Date/Time (CT)	Trading shall terminate on the business day immediately preceding the day on which the USDA announces the Class III price for that contract month (LTD 12:10 p.m.).	Trading shall terminate on the business day immediately preceding the day on which the USDA announces the Class III price for that contract month (LTD 12:10 p.m.).
Contract Listing	24 calendar months	24 calendar months
Settlement Procedure	Cash-settlement See CME Rule 5503.A	N/A
Strike Price Intervals	N/A	All contract months: \$0.25 intervals See CME Rule 55A01.E
Exercise Procedure	N/A	American-style See CME Rule 55A02
Position Limits	Non-spot: 1,500 contracts in any contract month Spot: 250 contracts All months combined: N/A See CME Rule 5502.E	Non-spot: 1,500 futures-equivalent contracts in any contract month Spot: 250 futures-equivalent contracts All months combined: N/A See CME Rule 55A01.F
Ticker Symbol	CME Globex = GDK Open Outcry = DK Clearing = DK	CME Globex = GDK Open Outcry = DK Clearing = DK
CME Rulebook Chapter	55	55A

2001	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$9.99	\$12.13	\$11.85	\$1.86	\$12.25	\$13.83	\$3.84	\$13.56	\$0.00
Feb	\$10.27	\$12.70	\$11.82	\$1.55	\$12.15	\$13.25	\$2.98	\$12.94	\$0.00
Mar	\$11.42	\$13.46	\$12.74	\$1.32	\$12.99	\$14.02	\$2.60	\$13.69	\$0.00
Apr	\$12.06	\$14.41	\$13.42	\$1.36	\$13.48	\$14.67	\$2.61	\$14.11	\$0.00
May	\$13.83	\$15.04	\$14.80	\$0.97	\$14.61	\$15.64	\$1.81	\$15.03	\$0.00
Jun	\$15.02	\$15.33	\$15.79	\$0.77	\$15.65	\$16.38	\$1.36	\$15.77	\$0.00
Jul	\$15.46	\$14.81	\$16.14	\$0.68	\$15.83	\$16.64	\$1.18	\$16.16	\$0.00
Aug	\$15.55	\$15.06	\$16.29	\$0.74	\$16.17	\$16.97	\$1.42	\$16.45	\$0.00
Sep	\$15.90	\$15.59	\$16.56	\$0.66	\$17.03	\$17.19	\$1.29	\$16.99	\$0.00
Oct	\$14.60	\$12.77	\$14.92	\$0.32	\$15.76	\$15.80	\$1.20	\$15.59	\$0.00
Nov	\$11.31	\$11.97	\$13.17	\$1.86	\$13.90	\$15.30	\$3.99	\$14.87	\$0.00
Dec	\$11.80	\$11.79	\$12.46	\$0.66	\$13.21	\$13.05	\$1.25	\$12.70	\$0.77
Avg.	\$13.10	\$13.76	\$14.16	\$1.06	\$14.42	\$15.23	\$2.13	\$14.82	\$0.06
Min.	\$9.99	\$11.79	\$11.82	\$0.32	\$12.15	\$13.05	\$1.18	\$12.70	\$0.00
Max.	\$15.90	\$15.59	\$16.56	\$1.86	\$17.03	\$17.19	\$3.99	\$16.99	\$0.77

2002	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$11.87	\$11.93	\$12.61	\$0.74	\$13.45	\$13.23	\$1.36	\$13.09	\$0.78
Feb	\$11.63	\$11.54	\$12.32	\$0.69	\$12.94	\$12.85	\$1.22	\$12.46	\$0.78
Mar	\$10.65	\$11.42	\$11.66	\$1.01	\$12.91	\$12.44	\$1.79	\$12.19	\$0.93
Apr	\$10.85	\$11.09	\$11.68	\$0.83	\$12.67	\$12.33	\$1.48	\$12.06	\$1.00
May	\$10.82	\$10.57	\$11.47	\$0.65	\$12.56	\$11.99	\$1.17	\$11.76	\$1.09
Jun	\$10.09	\$10.52	\$11.00	\$0.91	\$12.21	\$11.79	\$1.70	\$11.60	\$1.20
Jul	\$9.33	\$10.45	\$10.44	\$1.11	\$11.42	\$11.65	\$2.32	\$11.61	\$1.38
Aug	\$9.54	\$10.41	\$10.58	\$1.04	\$11.64	\$11.73	\$2.19	\$11.73	\$1.44
Sep	\$9.92	\$10.22	\$10.74	\$0.82	\$12.03	\$11.66	\$1.74	\$11.55	\$1.45
Oct	\$9.88	\$10.15	\$11.18	\$1.30	\$12.69	\$11.91	\$2.03	\$11.92	\$1.59
Nov	\$9.84	\$10.58	\$10.74	\$0.90	\$12.46	\$11.94	\$2.10	\$11.92	\$1.39
Dec	\$9.74	\$10.49	\$10.67	\$0.93	\$12.25	\$11.86	\$2.12	\$11.72	\$1.43
Avg.	\$10.35	\$10.78	\$11.26	\$0.91	\$12.44	\$12.12	\$1.77	\$11.97	\$1.21
Min.	\$9.33	\$10.15	\$10.44	\$0.65	\$11.42	\$11.65	\$1.17	\$11.55	\$0.78
Max.	\$11.87	\$11.93	\$12.61	\$1.30	\$13.45	\$13.23	\$2.32	\$13.09	\$1.59

2003	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$9.78	\$10.07	\$10.67	\$0.89	\$11.46	\$11.78	\$2.00	\$11.83	\$1.41
Feb	\$9.66	\$9.81	\$10.41	\$0.75	\$11.11	\$11.42	\$1.76	\$11.44	\$1.56
Mar	\$9.11	\$9.79	\$10.08	\$0.97	\$10.40	\$11.01	\$1.90	\$10.82	\$1.75
Apr	\$9.41	\$9.73	\$10.22	\$0.81	\$10.68	\$10.91	\$1.50	\$10.61	\$1.82
May	\$9.71	\$9.74	\$10.41	\$0.70	\$10.66	\$11.09	\$1.38	\$10.71	\$1.79
Jun	\$9.75	\$9.76	\$10.44	\$0.69	\$10.53	\$11.08	\$1.33	\$10.82	\$1.78
Jul	\$11.78	\$9.95	\$11.49	-\$0.29	\$11.22	\$11.57	-\$0.21	\$11.30	\$1.76
Aug	\$13.80	\$10.14	\$12.52	-\$1.28	\$11.90	\$12.64	-\$1.16	\$12.41	\$1.22
Sep	\$14.30	\$10.05	\$13.92	-\$0.38	\$13.45	\$14.75	\$0.45	\$14.22	\$0.00
Oct	\$14.39	\$10.16	\$14.23	-\$0.16	\$13.75	\$15.17	\$0.78	\$14.71	\$0.00
Nov	\$13.47	\$10.30	\$13.67	\$0.20	\$13.58	\$14.82	\$1.35	\$14.31	\$0.00
Dec	\$11.87	\$10.52	\$12.91	\$1.04	\$13.20	\$14.43	\$2.56	\$14.14	\$0.00
Avg.	\$11.42	\$10.00	\$11.75	\$0.33	\$11.83	\$12.56	\$1.14	\$12.28	\$1.09
Min.	\$9.11	\$9.73	\$10.08	-\$1.28	\$10.40	\$10.91	-\$1.16	\$10.61	\$0.00
Max.	\$14.39	\$10.52	\$14.23	\$1.04	\$13.75	\$15.17	\$2.56	\$14.71	\$1.82

Note: On January 2003, Northern Missouri's mailbox price changed into the Cornbelt mailbox milk price

2004	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$11.61	\$10.97	\$12.30	\$0.69	\$12.46	\$13.12	\$1.51	\$12.97	\$0.83
Feb	\$11.89	\$12.21	\$12.66	\$0.77	\$12.77	\$13.33	\$1.44	\$13.37	\$0.95
Mar	\$14.49	\$14.10	\$14.63	\$0.14	\$14.31	\$14.71	\$0.22	\$14.55	\$0.79
Apr	\$19.66	\$14.57	\$15.64	-\$4.02	\$16.07	\$15.82	-\$3.84	\$15.16	\$0.02
May	\$20.58	\$14.50	\$18.40	-\$2.18	\$17.40	\$19.37	-\$1.21	\$18.45	\$0.00
Jun	\$17.68	\$13.72	\$18.23	\$0.55	\$16.81	\$19.21	\$1.53	\$18.61	\$0.00
Jul	\$14.85	\$13.31	\$16.03	\$1.18	\$15.02	\$18.20	\$3.35	\$17.51	\$0.00
Aug	\$14.04	\$12.46	\$14.46	\$0.42	\$13.76	\$15.27	\$1.23	\$14.46	\$0.00
Sep	\$14.72	\$13.00	\$14.93	\$0.21	\$14.36	\$15.53	\$0.81	\$15.15	\$0.00
Oct	\$14.16	\$12.81	\$14.70	\$0.54	\$14.42	\$15.88	\$1.72	\$15.50	\$0.00
Nov	\$14.89	\$13.34	\$15.10	\$0.21	\$14.93	\$15.93	\$1.04	\$15.57	\$0.00
Dec	\$16.14	\$13.42	\$15.26	-\$0.88	\$15.30	\$16.13	-\$0.01	\$15.97	\$0.00
Avg.	\$15.39	\$13.20	\$15.20	-\$0.20	\$14.80	\$16.04	\$0.65	\$15.61	\$0.22
Min.	\$11.61	\$10.97	\$12.30	-\$4.02	\$12.46	\$13.12	-\$3.84	\$12.97	\$0.00
Max.	\$20.58	\$14.57	\$18.40	\$1.18	\$17.40	\$19.37	\$3.35	\$18.61	\$0.95

2005	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$14.14	\$12.52	\$14.95	\$0.81	\$14.98	\$16.26	\$2.12	\$16.01	\$0.00
Feb	\$14.70	\$12.74	\$14.50	-\$0.20	\$14.37	\$14.90	\$0.20	\$14.75	\$0.00
Mar	\$14.08	\$12.66	\$14.73	\$0.65	\$14.42	\$15.73	\$1.65	\$15.44	\$0.00
Apr	\$14.61	\$12.61	\$14.59	-\$0.02	\$14.16	\$14.95	\$0.34	\$14.25	\$0.00
May	\$13.77	\$12.20	\$14.21	\$0.44	\$13.61	\$14.83	\$1.06	\$13.97	\$0.00
Jun	\$13.92	\$12.33	\$14.18	\$0.26	\$13.27	\$14.57	\$0.65	\$13.18	\$0.03
Jul	\$14.35	\$13.17	\$14.76	\$0.41	\$13.62	\$15.28	\$0.93	\$14.24	\$0.00
Aug	\$13.60	\$13.44	\$14.49	\$0.89	\$13.58	\$15.54	\$1.94	\$14.67	\$0.00
Sep	\$14.30	\$13.75	\$14.75	\$0.45	\$14.11	\$15.42	\$1.12	\$14.90	\$0.00
Oct	\$14.35	\$13.61	\$14.70	\$0.35	\$14.49	\$15.59	\$1.24	\$15.30	\$0.00
Nov	\$13.35	\$12.90	\$14.06	\$0.71	\$13.98	\$15.32	\$1.97	\$15.18	\$0.00
Dec	\$13.37	\$12.57	\$13.69	\$0.32	\$13.82	\$14.54	\$1.17	\$14.43	\$0.04
Avg.	\$14.05	\$12.88	\$14.47	\$0.42	\$14.03	\$15.24	\$1.20	\$14.69	\$0.01
Min.	\$13.35	\$12.20	\$13.69	-\$0.20	\$13.27	\$14.54	\$0.20	\$13.18	\$0.00
Max.	\$14.70	\$13.75	\$14.95	\$0.89	\$14.98	\$16.26	\$2.12	\$16.01	\$0.04

2006	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$13.39	\$12.20	\$13.75	\$0.36	\$13.65	\$14.24	\$0.85	\$13.94	\$0.11
Feb	\$12.20	\$11.10	\$12.91	\$0.71	\$12.65	\$13.81	\$1.61	\$13.48	\$0.11
Mar	\$11.11	\$10.68	\$12.00	\$0.89	\$11.82	\$12.87	\$1.76	\$12.43	\$0.41
Apr	\$10.93	\$10.36	\$11.49	\$0.56	\$11.41	\$12.04	\$1.11	\$11.45	\$0.84
May	\$10.83	\$10.33	\$11.42	\$0.59	\$11.23	\$12.00	\$1.17	\$11.44	\$0.92
Jun	\$11.29	\$10.22	\$11.62	\$0.33	\$11.13	\$12.00	\$0.71	\$11.35	\$1.00
Jul	\$10.92	\$10.21	\$11.53	\$0.61	\$11.03	\$12.38	\$1.46	\$11.66	\$0.80
Aug	\$11.06	\$10.64	\$11.74	\$0.68	\$11.39	\$12.49	\$1.43	\$11.73	\$0.92
Sep	\$12.29	\$11.10	\$12.23	-\$0.06	\$12.36	\$12.78	\$0.49	\$12.40	\$0.97
Oct	\$12.32	\$11.51	\$12.73	\$0.41	\$13.08	\$13.70	\$1.38	\$13.55	\$0.43
Nov	\$12.84	\$12.11	\$12.96	\$0.12	\$13.31	\$13.78	\$0.94	\$13.71	\$0.44
Dec	\$13.47	\$12.30	\$13.32	-\$0.15	\$13.54	\$13.91	\$0.44	\$13.72	\$0.43
Avg.	\$11.89	\$11.06	\$12.31	\$0.42	\$12.22	\$13.00	\$1.11	\$12.57	\$0.61
Min.	\$10.83	\$10.21	\$11.42	-\$0.15	\$11.03	\$12.00	\$0.44	\$11.35	\$0.11
Max.	\$13.47	\$12.30	\$13.75	\$0.89	\$13.65	\$14.24	\$1.76	\$13.94	\$1.00

2007	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$13.56	\$12.53	\$13.92	\$0.36	\$13.96	\$14.59	\$1.03	\$14.36	\$0.03
Feb	\$14.18	\$12.71	\$14.06	-\$0.12	\$14.19	\$14.78	\$0.60	\$14.54	\$0.10
Mar	\$15.09	\$13.71	\$14.94	-\$0.15	\$14.69	\$15.64	\$0.55	\$15.14	\$0.00
Apr	\$16.09	\$16.12	\$15.98	-\$0.11	\$15.54	\$16.46	\$0.37	\$15.75	\$0.00
May	\$17.60	\$18.48	\$17.50	-\$0.10	\$16.66	\$17.83	\$0.23	\$16.98	\$0.00
Jun	\$20.17	\$20.76	\$19.80	-\$0.37	\$18.66	\$19.86	-\$0.31	\$19.13	\$0.00
Jul	\$21.38	\$21.64	\$21.90	\$0.52	\$20.72	\$22.39	\$1.01	\$21.49	\$0.00
Aug	\$19.83	\$21.87	\$21.93	\$2.10	\$20.73	\$22.97	\$3.14	\$22.10	\$0.00
Sep	\$20.07	\$21.61	\$21.66	\$1.59	\$21.15	\$22.87	\$2.80	\$22.25	\$0.00
Oct	\$18.70	\$21.31	\$20.82	\$2.12	\$20.96	\$22.46	\$3.76	\$22.03	\$0.00
Nov	\$19.22	\$20.40	\$20.79	\$1.57	\$21.25	\$22.56	\$3.34	\$22.26	\$0.00
Dec	\$20.60	\$19.18	\$20.36	-\$0.24	\$20.86	\$21.54	\$0.94	\$21.37	\$0.00
Avg.	\$18.04	\$18.36	\$18.64	\$0.60	\$18.28	\$19.50	\$1.46	\$18.95	\$0.01
Min.	\$13.56	\$12.53	\$13.92	-\$0.37	\$13.96	\$14.59	-\$0.31	\$14.36	\$0.00
Max.	\$21.38	\$21.87	\$21.93	\$2.12	\$21.25	\$22.97	\$3.76	\$22.26	\$0.10

2008	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$19.32	\$16.29	\$19.71	\$0.39	\$19.97	\$21.56	\$2.24	\$21.15	\$0.00
Feb	\$17.03	\$14.67	\$18.11	\$1.08	\$18.45	\$20.00	\$2.97	\$19.77	\$0.00
Mar	\$18.00	\$14.17	\$16.85	-\$1.15	\$17.35	\$17.89	-\$0.11	\$17.91	\$0.00
Apr	\$16.76	\$14.56	\$17.48	\$0.72	\$17.80	\$18.77	\$2.01	\$18.96	\$0.00
May	\$18.18	\$15.26	\$17.08	-\$1.10	\$17.56	\$18.20	\$0.02	\$17.97	\$0.00
Jun	\$20.25	\$15.92	\$18.50	-\$1.75	\$18.42	\$19.40	-\$0.85	\$19.00	\$0.00
Jul	\$18.24	\$16.60	\$19.38	\$1.14	\$18.66	\$21.28	\$3.04	\$20.85	\$0.00
Aug	\$17.32	\$16.64	\$18.32	\$1.00	\$18.05	\$19.85	\$2.53	\$19.58	\$0.00
Sep	\$16.28	\$15.45	\$17.44	\$1.16	\$17.72	\$19.23	\$2.95	\$19.40	\$0.00
Oct	\$17.06	\$13.62	\$16.30	-\$0.76	\$17.37	\$17.55	\$0.49	\$17.80	\$0.00
Nov	\$15.51	\$12.25	\$15.61	\$0.10	\$16.85	\$17.81	\$2.30	\$18.11	\$0.00
Dec	\$15.28	\$10.35	\$13.63	-\$1.65	\$15.20	\$15.45	\$0.17	\$15.54	\$0.00
Avg.	\$17.44	\$14.65	\$17.37	-\$0.07	\$17.78	\$18.92	\$1.48	\$18.84	\$0.00
Min.	\$15.28	\$10.35	\$13.63	-\$1.75	\$15.20	\$15.45	-\$0.85	\$15.54	\$0.00
Max.	\$20.25	\$16.64	\$19.71	\$1.16	\$19.97	\$21.56	\$3.04	\$21.15	\$0.00

2009	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$10.78	\$9.59	\$12.49	\$1.71	\$13.61	\$15.22	\$4.44	\$14.98	\$0.00
Feb	\$9.31	\$9.45	\$10.38	\$1.07	\$11.33	\$11.82	\$2.51	\$11.69	\$1.51
Mar	\$10.44	\$9.64	\$10.44	\$0.00	\$11.43	\$11.07	\$0.63	\$10.78	\$2.01
Apr	\$10.78	\$9.82	\$10.91	\$0.13	\$11.62	\$11.74	\$0.96	\$11.09	\$1.59
May	\$9.84	\$10.14	\$10.82	\$0.98	\$11.33	\$11.81	\$1.97	\$10.77	\$1.47
Jun	\$9.97	\$10.22	\$10.70	\$0.73	\$10.96	\$11.43	\$1.46	\$10.77	\$1.84
Jul	\$9.97	\$10.15	\$10.76	\$0.79	\$10.82	\$11.67	\$1.70	\$11.08	\$1.54
Aug	\$11.20	\$10.38	\$11.24	\$0.04	\$11.69	\$11.90	\$0.70	\$11.51	\$1.64
Sep	\$12.11	\$11.15	\$11.90	-\$0.21	\$12.82	\$12.72	\$0.61	\$12.55	\$1.24
Oct	\$12.82	\$11.86	\$12.79	-\$0.03	\$14.12	\$14.15	\$1.33	\$14.23	\$0.60
Nov	\$14.08	\$13.25	\$13.86	-\$0.22	\$14.99	\$14.88	\$0.80	\$15.01	\$0.37
Dec	\$14.98	\$15.01	\$14.96	-\$0.02	\$16.01	\$15.83	\$0.85	\$15.85	\$0.00
Avg.	\$11.36	\$10.89	\$11.77	\$0.41	\$12.56	\$12.85	\$1.50	\$12.53	\$1.15
Min.	\$9.31	\$9.45	\$10.38	-\$0.22	\$10.82	\$11.07	\$0.61	\$10.77	\$0.00
Max.	\$14.98	\$15.01	\$14.96	\$1.71	\$16.01	\$15.83	\$4.44	\$15.85	\$2.01

2010	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$14.50	\$13.85	\$14.88	\$0.38	\$15.76	\$16.20	\$1.70	\$16.17	\$0.00
Feb	\$14.28	\$12.90	\$14.79	\$0.51	\$15.63	\$16.19	\$1.91	\$15.99	\$0.00
Mar	\$12.78	\$12.92	\$14.03	\$1.25	\$14.66	\$15.40	\$2.62	\$15.05	\$0.00
Apr	\$12.92	\$13.73	\$13.80	\$0.88	\$14.13	\$14.63	\$1.71	\$14.00	\$0.21
May	\$13.38	\$15.29	\$14.46	\$1.08	\$14.61	\$15.19	\$1.81	\$14.40	\$0.00
Jun	\$13.62	\$15.45	\$15.18	\$1.56	\$16.06	\$16.24	\$2.62	\$15.65	\$0.00
Jul	\$13.74	\$15.75	\$15.63	\$1.89	\$15.55	\$16.97	\$3.23	\$16.39	\$0.00
Aug	\$15.18	\$15.61	\$16.40	\$1.22	\$16.21	\$17.62	\$2.44	\$17.09	\$0.00
Sep	\$16.26	\$16.76	\$17.01	\$0.75	\$17.42	\$17.98	\$1.72	\$17.96	\$0.00
Oct	\$16.94	\$17.15	\$17.35	\$0.41	\$18.45	\$18.44	\$1.50	\$18.80	\$0.00
Nov	\$15.44	\$16.68	\$16.67	\$1.23	\$18.27	\$18.22	\$2.78	\$18.71	\$0.00
Dec	\$13.83	\$15.03	\$15.29	\$1.46	\$16.47	\$16.93	\$3.10	\$17.23	\$0.00
Avg.	\$14.41	\$15.09	\$15.46	\$1.05	\$16.10	\$16.67	\$2.26	\$16.45	\$0.02
Min.	\$12.78	\$12.90	\$13.80	\$0.38	\$14.13	\$14.63	\$1.50	\$14.00	\$0.00
Max.	\$16.94	\$17.15	\$17.35	\$1.89	\$18.45	\$18.44	\$3.23	\$18.80	\$0.21

2011	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$13.48	\$16.42	\$15.31	\$1.83	\$16.58	\$16.61	\$3.13	\$16.67	\$0.00
Feb	\$17.00	\$18.40	\$17.50	\$0.50	\$18.89	\$18.20	\$1.20	\$18.30	\$0.00
Mar	\$19.40	\$19.41	\$19.21	-\$0.19	\$20.47	\$19.87	\$0.47	\$19.85	\$0.00
Apr	\$16.87	\$19.78	\$18.71	\$1.84	\$19.46	\$19.95	\$3.08	\$19.38	\$0.00
May	\$16.52	\$20.29	\$18.66	\$2.14	\$19.23	\$20.25	\$3.73	\$19.31	\$0.00
Jun	\$19.11	\$21.05	\$20.36	\$1.25	\$20.50	\$21.53	\$2.42	\$20.88	\$0.00
Jul	\$21.39	\$20.33	\$21.60	\$0.21	\$21.23	\$22.29	\$0.90	\$21.26	\$0.00
Aug	\$21.67	\$20.14	\$21.97	\$0.30	\$21.61	\$23.12	\$1.45	\$22.78	\$0.00
Sep	\$19.07	\$19.53	\$20.43	\$1.36	\$20.89	\$22.66	\$3.59	\$22.54	\$0.00
Oct	\$18.03	\$18.41	\$18.82	\$0.79	\$19.82	\$20.39	\$2.36	\$20.63	\$0.00
Nov	\$19.07	\$17.87	\$18.82	-\$0.25	\$20.07	\$20.23	\$1.16	\$20.63	\$0.00
Dec	\$18.77	\$16.87	\$18.25	-\$0.52	\$19.25	\$19.52	\$0.75	\$19.45	\$0.00
Avg.	\$18.37	\$19.04	\$19.14	\$0.77	\$19.83	\$20.39	\$2.02	\$20.14	\$0.00
Min.	\$13.48	\$16.42	\$15.31	-\$0.52	\$16.58	\$16.61	\$0.47	\$16.67	\$0.00
Max.	\$21.67	\$21.05	\$21.97	\$2.14	\$21.61	\$23.12	\$3.73	\$22.78	\$0.00

2012	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$17.05	\$16.56	\$17.93	\$0.88	\$18.80	\$19.67	\$2.62	\$19.10	\$0.00
Feb	\$16.06	\$15.92	\$16.63	\$0.57	\$17.49	\$17.98	\$1.92	\$17.05	\$0.39
Mar	\$15.72	\$15.35	\$16.22	\$0.50	\$16.65	\$17.22	\$1.50	\$15.64	\$0.83
Apr	\$15.72	\$14.80	\$16.03	\$0.31	\$16.22	\$16.84	\$1.12	\$15.37	\$1.21
May	\$15.23	\$13.55	\$15.51	\$0.28	\$15.63	\$16.67	\$1.44	\$15.54	\$1.22
Jun	\$15.63	\$13.24	\$15.38	-\$0.25	\$15.68	\$16.46	\$0.83	\$15.83	\$1.37
Jul	\$16.68	\$14.45	\$16.29	-\$0.39	\$16.36	\$17.24	\$0.56	\$16.73	\$1.64
Aug	\$17.73	\$15.76	\$17.43	-\$0.30	\$17.85	\$18.55	\$0.82	\$18.25	\$1.48
Sep	\$19.00	\$17.41	\$18.37	-\$0.63	\$19.19	\$19.47	\$0.47	\$19.08	\$0.59
Oct	\$21.02	\$18.54	\$19.45	-\$1.57	\$21.24	\$20.95	-\$0.07	\$20.70	\$0.02
Nov	\$20.83	\$18.66	\$20.23	-\$0.60	\$21.89	\$22.07	\$1.24	\$22.27	\$0.00
Dec	\$18.66	\$17.83	\$19.56	\$0.90	\$20.26	\$21.32	\$2.66	\$21.06	\$0.00
Avg.	\$17.44	\$16.01	\$17.42	-\$0.03	\$18.11	\$18.70	\$1.26	\$18.05	\$0.73
Min.	\$15.23	\$13.24	\$15.38	-\$1.57	\$15.63	\$16.46	-\$0.07	\$15.37	\$0.00
Max.	\$21.02	\$18.66	\$20.23	\$0.90	\$21.89	\$22.07	\$2.66	\$22.27	\$1.64

2013	Class Prices		Northern Missouri			Southern Missouri			Gov't Payments
	Class III Price	Class IV Price	Uniform Price, 3.5% BF Milk, Jackson Co.	Basis: Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3.5% BF Milk, Springfield	Basis: Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	Milk Income Loss Contract
Jan	\$18.14	\$17.63	\$18.57	\$0.43	\$19.50	\$20.10	\$1.96	\$19.98	\$0.12
Feb	\$17.25	\$17.75	\$18.11	\$0.86	\$18.87	\$19.65	\$2.40	\$19.35	\$0.52
Mar	\$16.93	\$17.75	\$17.87	\$0.94	\$18.51	\$19.30	\$2.37	\$19.00	\$0.75
Apr	\$17.59	\$18.10	\$18.17	\$0.58	\$18.71	\$19.40	\$1.81	\$18.87	\$0.70
May	\$18.52	\$18.89	\$18.65	\$0.13	\$18.82	\$19.49	\$0.97	\$18.74	\$0.74
Jun	\$18.02	\$18.88	\$18.80	\$0.78	\$18.45	\$19.91	\$1.89	\$19.13	\$0.22
Jul	\$17.38	\$18.90	\$18.62	\$1.24	\$18.23	\$20.17	\$2.79	\$19.63	\$0.06
Aug	\$17.91	\$19.07	\$18.92	\$1.01		\$20.41	\$2.50		\$0.00
Sep	\$18.14	\$19.43	\$19.17	\$1.03		\$20.70	\$2.56		\$0.00
Oct	\$18.22	\$20.17	\$19.25	\$1.03		\$21.18	\$2.96		
Nov									
Dec									
Avg.	\$17.81	\$18.66	\$18.61	\$0.80	\$18.73	\$20.03	\$2.22	\$19.24	\$0.35
Min.	\$16.93	\$17.63	\$17.87	\$0.13	\$18.23	\$19.30	\$0.97	\$18.74	\$0.00
Max.	\$18.52	\$20.17	\$19.25	\$1.24	\$19.50	\$21.18	\$2.96	\$19.98	\$0.75

Published by the University of Missouri Commercial Agriculture Program

Find more dairy resources at:

<http://dairy.missouri.edu/>

Sources: National Federal Order Mailbox Prices
Milk Market Administrators (Central and Southeast)
USDA-FSA
University of Wisconsin



*Mail box milk prices reflect the net pay price received by dairy farmers for milk. This includes all payments received for milk sold and all costs associated with marketing the milk, including hauling. Price is a weighted average for the reporting area and is reported at the average butterfat test. Mailbox price does not include any Milk Income Loss (MILC) payments.

Milk Prices and Marketing x
dairy.missouri.edu/mkt/

UNIVERSITY OF MISSOURI EXTENSION

Missouri Dairy Resource Guide



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Categories

- Missouri Dairy Links
- Buildings and Facilities
- Business Management
- By-Products
- Dairy Grazing
- Feeds and Nutrition
- Health and Reproduction
- Heat Stress
- Heifers
- Herd Management
- Industry Resources
- Labor, Taxes, and Records
- Manure Management
- Milk Quality
- Milk Prices and Marketing
- Transition Cows
- Weather

Milk Prices and Marketing

Low milk prices can stress the best dairy business plans. Methods of managing risk through milk marketing can work to reduce volatility. These links will help you to identify current milk prices, trends, and opportunities to manage price risks.

Milk Prices

- Missouri Milk Prices and Basis: HTM or XLS
- Basic Milk Pricing Concepts (Wisconsin)
- Basis and Its Importance (Penn State)
- Class III Milk: Futures and Options (CME)
- Class IV Milk: Futures and Options (CME)
- Butter: Futures and Options (CME)
- MILC Payments (USDA)
- Global Dairy Trade
- Factors That Affect Farm-gate Milk Prices (Penn State)

Risk Management

- Dairy Futures and Options Tutorial (Wisconsin)
- Introduction to Trading Dairy Futures and Options (CME)
- Put Options as Price Insurance (Kentucky)
- Options on Dairy Futures (Kentucky)
- Dairy Futures Contracts (Kentucky)
- Forward Contracting, Hedging, and Options (Penn State)
- Using Milk Futures to Lock In Profitability (Penn State)

Commercial Brokers

- eDairy, Inc.
- KDM Trading

Milk Price Outlook

- Bob Cropp's Monthly Outlook (Wisconsin)
- Dairy Outlook (Penn State)
- Understanding Dairy Markets (Wisconsin)

USDA Reports

- Milk Production (USDA-NASS)
- Dairy Outlook (USDA-ERS)
- Dairy Outlook Data (USDA-ERS)
- Dairy Imports and Exports (USDA-FAS)
- Dairy Programs and Service (USDA-AMS)
- Dairy Market News (USDA-AMS)
- Dairy Product Production (Cheese Mkt. News)

Milk Market Administrators

- Central (Northern Missouri)
- Southeast (Southern Missouri)

Milk Marketing Topics

- Southern Dairy Conference Proceedings

Where does hedging fit?

- As farms get larger and risk management becomes more critical, hedging becomes an important skill set to develop.
- Why would a Missouri dairy farm use a broker for hedging with futures and options?
 1. Farm bill margin insurance – delayed
 2. DFA Risk Management – members only
 3. LGM-Dairy – limited funding and bad timing

Hedging using “Futures”

- A hedge is taking a position in the futures market opposite the position you expect to have in the cash market.
- Start the milk hedge by selling a Class III milk contract on the futures market anytime for the next 18 months.
- Close the hedge by buying back your contract when you start shipping milk in that future month.
- Hedging allows you to lock in a Class III price by gaining in one market what you lose in another.

Milk Futures Traded on the CME

- The CME Exchange
 - Milk 200,000 lb.
 - Class III
 - Class IV
- Features
 - Quoted in dollars/cwt.
 - Based on 3.5% butterfat
 - Settlement in every calendar month
 - Expiration one day prior to USDA announcement.
 - Cash-settled at expiration to announced price (no need to worry about physical delivery)
 - Futures converge at expiration to announced price

"Basis"

- Relationship between your actual monthly milk price and the announced Class III price
- Different federal marketing orders have different basis
- Producers may access basis from their milk check stubs, cooperative history, or estimate using Missouri basis history <http://dairy.missouri.edu/mkt/>
- Knowing the basis is important if you want to use futures and options effectively

Example

Farm price	
October 2013	21.17
LESS	
Announced Class III for October 2013	18.22
EQUALS	
Basis	2.95

"Basis"

Missouri Milk Prices and Basis

2013 2012 2011 2010 2009 2008 2007 2006 2005 2004 2003 2002 2001

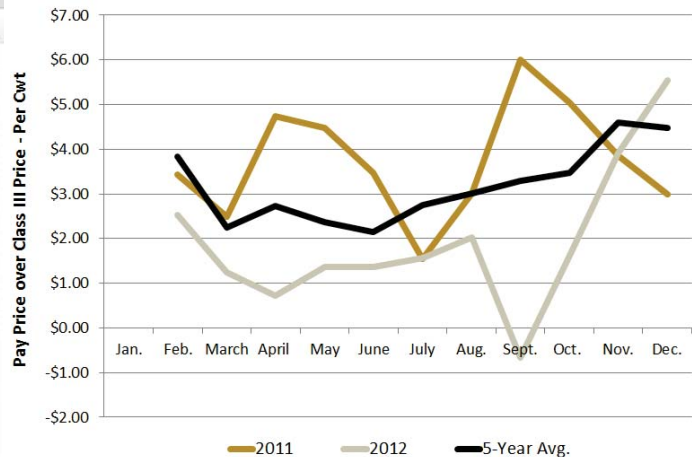
2013	Class Prices		Northern Missouri			Southern Missouri			Milk Income Less Contract
	Class II Price	Class IV Price	Uniform Price, 3 lbs. 87 Milk, Jackson Co.	Basic Class III Milk vs. N. Missouri Uniform Price	Mailbox Milk Price*	Uniform Price, 3 lbs. 87 Milk, Springfield	Basic Class III Milk vs. S. Missouri Uniform Price	Mailbox Milk Price*	
Jan	\$18.14	\$17.63	\$18.57	\$0.43	\$19.50	\$20.10	\$1.96	\$19.98	\$0.12
Feb	\$17.25	\$17.75	\$18.11	\$0.86	\$18.87	\$19.65	\$2.40	\$19.35	\$0.52
Mar	\$16.93	\$17.75	\$17.87	\$0.94	\$18.51	\$19.30	\$2.37	\$19.00	\$0.75
Apr	\$17.59	\$18.10	\$18.17	\$0.58	\$18.71	\$19.40	\$1.81	\$18.87	\$0.70
May	\$18.52	\$18.89	\$18.85	\$0.13	\$18.82	\$19.49	\$0.97	\$18.74	\$0.74
Jun	\$18.02	\$18.88	\$18.80	\$0.78	\$18.45	\$19.91	\$1.89	\$19.13	\$0.22
Jul	\$17.38	\$18.90	\$18.62	\$1.24	\$18.23	\$20.17	\$2.79	\$19.63	\$0.06
Aug	\$17.91	\$19.07	\$18.92	\$1.01	\$20.41	\$2.50	\$0.00	\$0.00	\$0.00
Sep	\$18.14	\$19.43	\$19.17	\$1.03	\$20.70	\$2.56	\$0.00	\$0.00	\$0.00
Oct	\$18.22	\$20.17	\$19.25	\$1.03		\$21.18	\$2.96		
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Avg.	\$17.81	\$18.66	\$18.61	\$0.80	\$18.73	\$20.03	\$2.22	\$19.24	\$0.35
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Max.	\$18.52	\$20.17	\$19.25	\$1.24	\$19.50	\$21.18	\$2.96	\$19.98	\$0.75

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Sources: National Federal Order Mailbox Prices
Milk Market Administrators (Central and Southeast)
USDA-FSA
University of Wisconsin

*Mail box milk prices reflect the net pay price received by dairy farmers for milk. This includes all payments received for milk sold and all costs associated with marketing the milk, including hauling. Price is a weighted average for the reporting area and is reported at the average outlet/retail. Mailbox price does not include any 558 Income Loss (MILC) payments.

MU Southwest Center Historical Basis



The weighted average historical basis for the University of Missouri Southwest Center Dairy was **\$3.06/cwt** for the last three years (2010-2012)

Milk Futures Price Example

Date: Nov 18, 2013 Contract Month	Futures Settlement \$/cwt
January 2014	17.32
February 2014	16.95
March 2014	16.77
April 2014	16.74
May 2014	16.73
June 2014	16.81
July 2014	17.08
August 2014	17.12
Sept 2014	17.20
Oct 2014	17.23
Nov 2014	17.19
Dec 2014	16.99

Note: Milk futures contracts are traded for each month in the future. The only difference between contract months is the price and the date on which the contract is settled.

Price quotations from CME

**Simplified Example: It is December 6, 2014.
April 2014 Class III futures are trading at 16.75. You think prices will drop.
You sell one April 2014 Class III futures contract.**

IN APRIL – PRICES DROP TO \$14.75

- April Class III (Actual) \$14.75
- Futures
 - Sold \$16.75
 - Bought \$14.75
 - Profit \$ 2.00
- Net Received \$16.75

IN APRIL – PRICES RISE TO \$18.75

- April Class III (Actual) \$18.75
- Futures
 - Sold \$16.75
 - Bought \$18.75
 - Loss \$ 2.00
- Net Received \$16.75

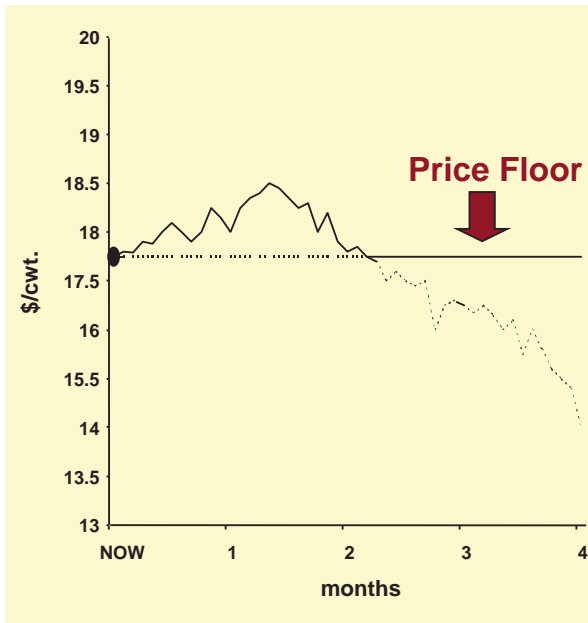
Hedging using "Futures"

- Best suited for larger dairies
 - 200,000 pounds milk per month minimum
 - Need to follow markets closely
- Must open a brokerage account with a commodity broker. (Hedging only)
 - Initial margin ~ 5% of contract value -- \$2,000
 - Maintenance margin if market moves against position
- Margin call fear factor

Hedging using "Options"

- An option is the right, but not the obligation to buy or sell a futures contract at a specified "strike" price.
- Dairy "Put" options are like buying an insurance policy against prices falling below a certain "strike price" where the premium is established minute to minute in the CME market.
- Put premiums get more expensive as:
 - The strike price gets higher
 - The underlying future month is further into the future
 - The volatility of the underlying futures contract increases

Major Advantages of Buying a Put Option:



No need to change existing marketing channels,
Easy to understand,
Can establish a floor price for milk at anytime, AND
Can retain the ability to sell at higher prices

For Producers, a Put Option is Like an Insurance Policy

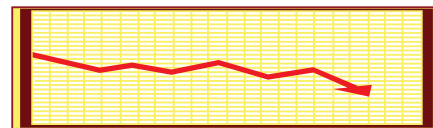


Truck Insurance

You consider buying truck insurance to protect against the RISK that the truck will have an accident.

You decide on an appropriate DEDUCTIBLE.

You pay a PREMIUM for your insurance.



Put Options

You consider buying a put to protect against the RISK that milk prices will fall.

You decide on an appropriate FLOOR PRICE.

You pay a PREMIUM for a put.

Milk Put Options

- Many put options at different prices called **STRIKE PRICES** are associated with each delivery month.
- Strike prices are established by the exchange (CME).
- Each put option (delivery and strike price) has a unique **PREMIUM**.

Class III Put Options Example: Nov 18, 2013

	March	April	May
Futures Prices	16.77	16.74	16.73
Put Option Strike Prices	Premiums \$/cwt	Premiums \$/cwt	Premiums \$/cwt
15.75	0.26	0.31	0.35
16.00	0.33	0.39	0.44
16.25	0.41	0.47	0.53
16.50	0.51	0.58	0.63
16.75	0.62	0.69	0.75
17.00	0.76	0.83	0.90
17.25	0.91	0.98	1.05
17.50	1.07	1.15	1.22
17.75	1.25	1.33	1.39
18.00	1.44	1.51	1.57

The Premium

- The cost of an option in dollars per cwt. as determined by open outcry.
- May vary throughout the day as futures prices change.
- Put premiums generally fall as futures prices rise and rise as futures prices fall.

Class III Put Options Example: Nov 18, 2013

	March	April	May
Futures Prices	16.77	16.74	16.73
Put Option Strike Prices	Premiums \$/cwt	Premiums \$/cwt	Premiums \$/cwt
15.75	0.26	0.31	0.35
16.00	0.33	0.39	0.44
16.25	0.41	0.47	0.53
16.50	0.51	0.58	0.63
16.75	0.62	0.69	0.75
17.00	0.76	0.83	0.90
17.25	0.91	0.98	1.05
17.50	1.07	1.15	1.22
17.75	1.25	1.33	1.39
18.00	1.44	1.51	1.57

The Premium (Cont.)

- Intrinsic value is the difference between futures price and strike price for “in-the-money” puts only.
- Time value is the amount of the premium above the intrinsic value.

Class III Put Options Example: Nov 18, 2013			
March Futures Prices		= \$ 16.77	
Put Option Strike Prices	Premiums = \$/cwt	Intrinsic value	+ Time value
15.75	0.26	0.00	0.26
16.00	0.33	0.00	0.26
16.25	0.41	0.00	0.41
16.50	0.51	0.00	0.51
16.75	0.62	0.00	0.62
17.00	0.76	0.23	0.53
17.25	0.91	0.48	0.43

The Strike Price

- The price at which a put buyer has the right to sell milk futures.
- Are established by the exchanges at \$0.25/cwt. intervals.
- If below the futures price, put strike prices are:
Out-of-the-Money.
- If above the futures price, put strike prices are:
In-the-Money.
- If closest to the futures price, put strike prices are:
At-the-Money.

Class III Put Options Example: Nov 18, 2013			
	March	April	May
Futures Prices	16.77	16.74	16.73
Put Option Strike Prices	Premiums \$/cwt	Premiums \$/cwt	Premiums \$/cwt
15.75	0.26	0.31	0.35
16.00	0.33	0.39	0.44
16.25	0.41	0.47	0.53
16.50	0.51	0.58	0.63
16.75	0.62	0.69	0.75
17.00	0.76	0.83	0.90
17.25	0.91	0.98	1.05
17.50	1.07	1.15	1.22
17.75	1.25	1.33	1.39
18.00	1.44	1.51	1.57

Calculating a Floor Price Using Puts

- An estimated floor price can be determined by considering:
 - Strike Price
 - Put Premium
 - Basis

Floor Price Calculation Example: November 18, 2013

March Strike Price = \$16.75
Put Premium = \$0.62
Basis = \$1.50

Strike Price	\$16.75
+Basis	+ 1.50
-Premium	- 0.62
= FLOOR PRICE	\$17.63

Choose Your Strike Price & Floor Price

Class III April Put Options Example: Nov 18, 2013

Futures Prices	16.74
Put Option Strike Prices	Premiums \$/cwt
15.75	0.31
16.00	0.39
16.25	0.47
16.50	0.58
16.75	0.69
17.00	0.83
17.25	0.98
17.50	1.15
17.75	1.33
18.00	1.51

}	Strike Price	15.75
	Basis	+1.50
	Premium	- 0.31
	Floor Price	16.94
}	Strike Price	16.00
	Basis	+1.50
	Premium	- 0.39
	Floor Price	17.11
}	Strike Price	16.50
	Basis	+1.50
	Premium	- 0.58
	Floor Price	17.42

Compare floor prices and premiums against production costs of \$17.00
Note: Simple example ignores broker commission

Example using "Put Options"

- April strategy.
- Put Option Strike Price \$16.50
- + Typical Basis \$1.75
- – Put Option Premium (\$0.30)
- – Trading Costs (\$0.05)
- = Net Protection Level \$17.90
- – Cost of Production (\$17.60)
- = Net Minimum Profit \$0.30

Total Cost of an Option

- Total dollar cost of a buying a put option includes the premium per cwt. multiplied by the size of the contract.
- In addition, a commission is charged by brokers for filling option orders.

Example:

If the option premium is \$0.30/cwt then:

For 200,000 lb. put option contract (2,000 cwt), total premium cost is:

$$\begin{array}{r} \$0.30/\text{cwt} \\ \times \underline{2000 \text{ cwt}} \\ = \$600 \end{array}$$

Opening and Closing a Put Option Trade

- To Open
 - **Buy** Pay the put option premium and commissions to broker.
- To Close
 - **Do nothing** A put option will automatically expire on the expiration date if it has no value.
 - **Exercise** Some put options may be exercised prior to expiration. All put options with value at expiration will be automatically exercised and the amount credited to your account.
 - **Sell** A put option may be sold at any time before the expiration date if it has value. Your broker will credit your account for the value of the put after a sale.

Review the mechanics of 4 methods

Method of insuring a margin	Where do I do this?	When do I do this?	How do I pay for it	How do I get paid?	Profitability & Cash Flow Impacts?
<i>Farm Bill Margin Insurance</i>	Local FSA Office	One time per year	Check	Every 2 months	Profit ↔ Cash Flow ↑
<i>DFA Risk Management Services</i>	DFA Risk Manager	Normal office hours	Profit or loss on milk check	Profit or loss on milk check	Profit ↔ Cash Flow ↑
<i>LGM- Dairy Insurance</i>	Insurance office	Last business Friday	Check at end of contract	Final indemnity payment	Profit ↔ Cash Flow ↑
<i>Hedging via Brokers</i>	Your Broker	By phone when market open	Check to broker	Check from broker	Profit ↔ Cash Flow ↑