Introduction and Strategic Implementation of the Dairy Producer Margin Protection Program in the 2014 Farm Bill

John Newton

University of Illinois

217-333-1051

jcnewt@illinois.edu

farmdoc WEBINARS

@New10_AgEcon

Presentation Materials

Visit the ‘Downloads’ page at farmdoc.illinois.edu / webinars

PDF of slides available now

Video available tomorrow

Questions

Please submit questions during the presentation

2014 Farm Bill Program Extensions

- Dairy Forward Pricing Program (Class II through IV milk)

- Livestock Gross Margin for Dairy Cattle

- Dairy Price Support Program ("Dairy Cliff")

farmdoc WEBINARS

2014 Farm Bill Repeals

- Milk Income Loss Contract
- Dairy Export Assistance Program
- Dairy Product Price Support Program

2014 New Dairy Provisions

- **Voluntary Dairy Producer Margin Protection Program**
  - Income-over-feed-cost margin protection available from $4 to $8 in $0.50 increments
- **Dairy Product Donation Program**
  - USDA purchases dairy products when IOFC below $4 per hundredweight
- **Potential California Federal Order**
  - California producers may petition USDA for a hearing

Margin Protection Program

- **Dairy Producer Margin Protection Program**
  - Voluntary program based on income-over-feed-cost margins
  - **Designed to protect dairymen from severe downturns in the milk price, rising livestock feed prices, or a combination of both**
  - Pays indemnity when the average difference between the USDA national All-Milk price and a feed ration index falls below a user selected coverage level
  - Consecutive 2-month average margins determine indemnity: Jan/Feb, ..., Nov/Dec
  - No eligibility constraints or payment limitations

Margin Protection Elements

IOFC Margin = U.S. All-Milk Price – [NASS Corn Price x 1.0728 + AMS SBM x 0.00735 + NASS Alfalfa x 0.0137]

Feed Ration

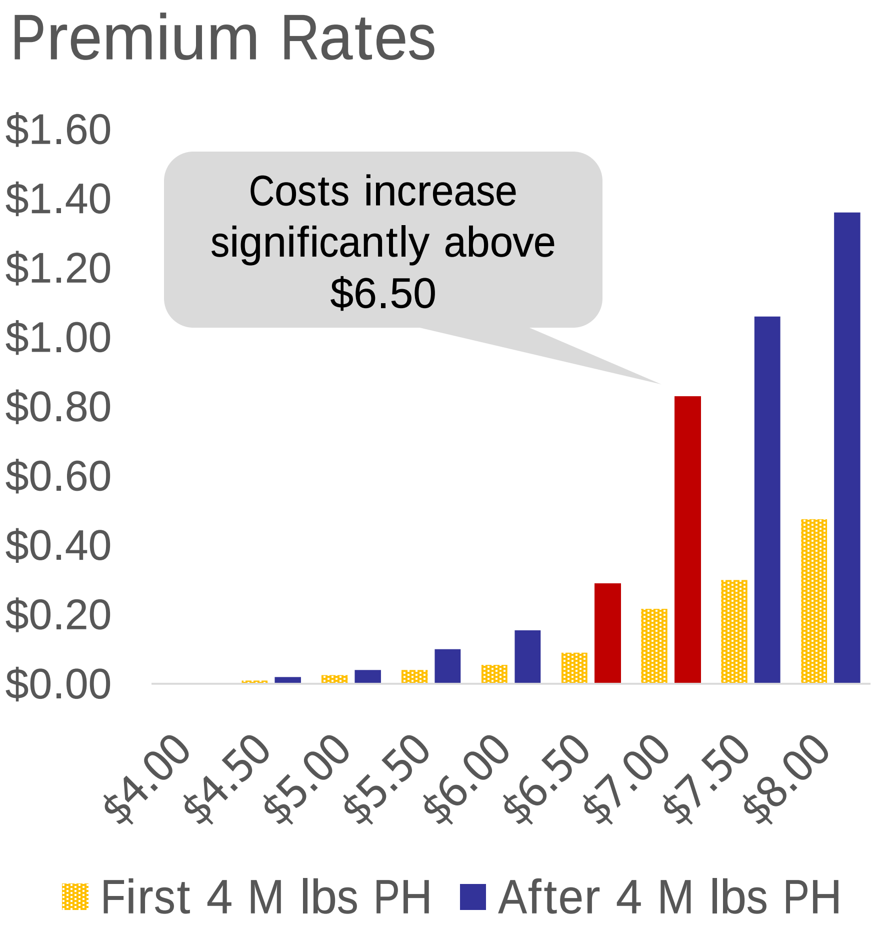
- **Actual Dairy Production Margin**
  - All-milk price minus feed ration value
  - National average formula, cannot be customized
- **Actual Dairy Production History**
  - Max calendar year production 2011, 2012, 2013
  - Revised annually by USDA based on U.S. growth in milk production
  - Payment made on production history – not based on actual milk production (Congress passed bills different)

Key Farmer Decisions

Each year a farm must choose:

- **Coverage Percentage**
  - 25% to 90% of production history in 5% increments
- **Coverage Level**
  - $4 to $8 per hundredweight in $0.50 increments

Premium Rates Are Fixed for Farm Bill



Premium Rates For Selected Margin Level Coverage *

Margin Level	First 4 million pounds	Above 4 million pounds
	($ per cwt.)	
$4.00	$0.000	$0.000
$4.50	$0.010	$0.020
$5.00	$0.025	$0.040
$5.50	$0.040	$0.100
$6.00	$0.055	$0.155
$6.50	$0.090	$0.290
$7.00	$0.217	$0.830
$7.50	$0.300	$1.060
$8.00	$0.475	$1.360

* - In 2014 and 2015 the premium rates for the first 4 million pounds will be reduced by 25 percent at all levels except at the $8.00 level. A producer will also pay $100 annually in administrative fees.

farmdoc WEBINARS

Strategy: Manage Risk or Maximize Benefits of MPP

- **Consistently employ coverage strategy**
  - Risk and reward tradeoff

- **Maximize benefits by choosing annually**
  - Coverage Level and Coverage Percentage
- **Milk and feed market prices are constantly updating**
- **The margin protection program premiums rates are fixed for the life of the Farm Bill**
  - Risk involved in changing coverage parameters annually, i.e., unprotected during unanticipated IOFC decline

Consistent Risk Management

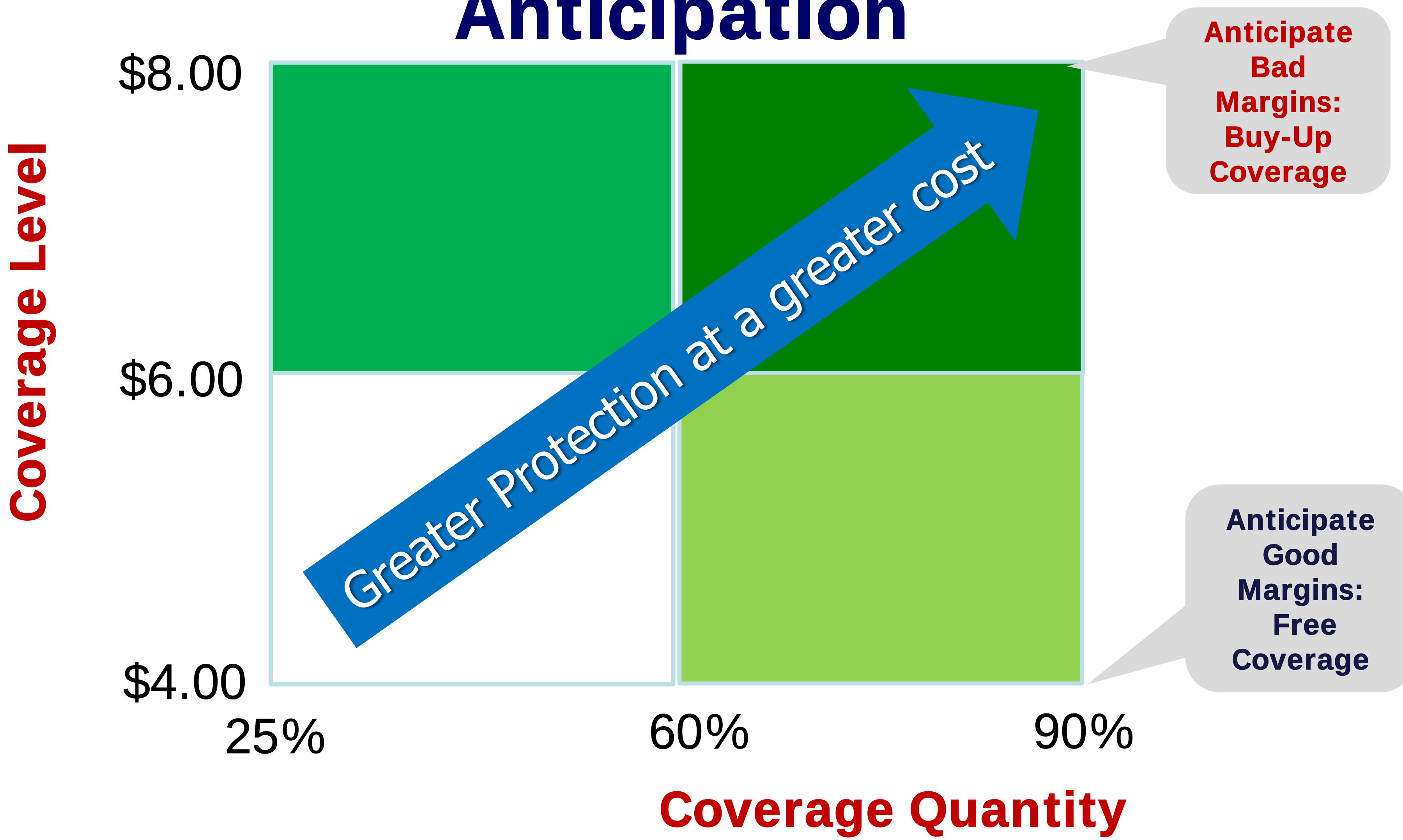
- Buy coverage annually (4 Mil Lb. PH)
- Review Examples:
  - $4 coverage / 90%
    - Catastrophic coverage only, not much help
  - $6.50 coverage / 90%
    - 33% reduction in variance, average IOFC increased
  - $8.00 coverage / 90%
    - 57% reduction in variance, average IOFC increased
- Risk and Reward Tradeoff
  - Potential to outperform futures markets

Consistent Risk Management

- Buy coverage annually (20 Mil Lb. PH)
- Review Examples:
  - $4 coverage / 90%
    - Catastrophic coverage only, not much help
  - $6.50 coverage / 90%
    - Reduction in variance, average IOFC increased
  - $8.00 coverage / 90%
    - Reduction in variance, average IOFC decreased
- Risk and Reward Tradeoff
  - Similar risk reward tradeoff as futures

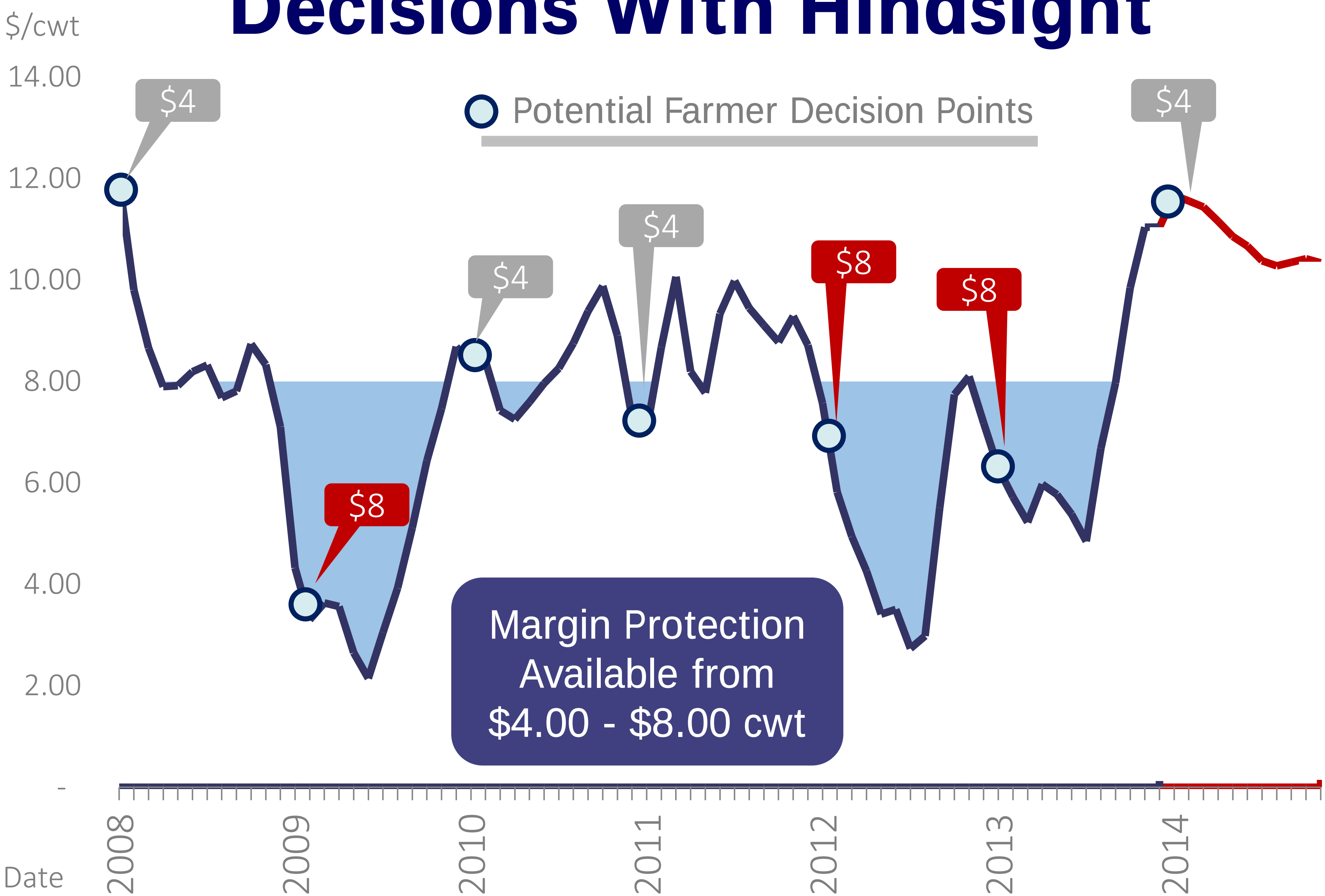
farmdoc WEBINARS

Maximize Benefits with Margin Anticipation



Graphic from Hoard's Dairyman Webinar by Dr. Scott Brown, University of Missouri

Decisions With Hindsight



farmdoc WEBINARS

For Demonstration Only

Using CME Futures to Forecast IOFC Margins

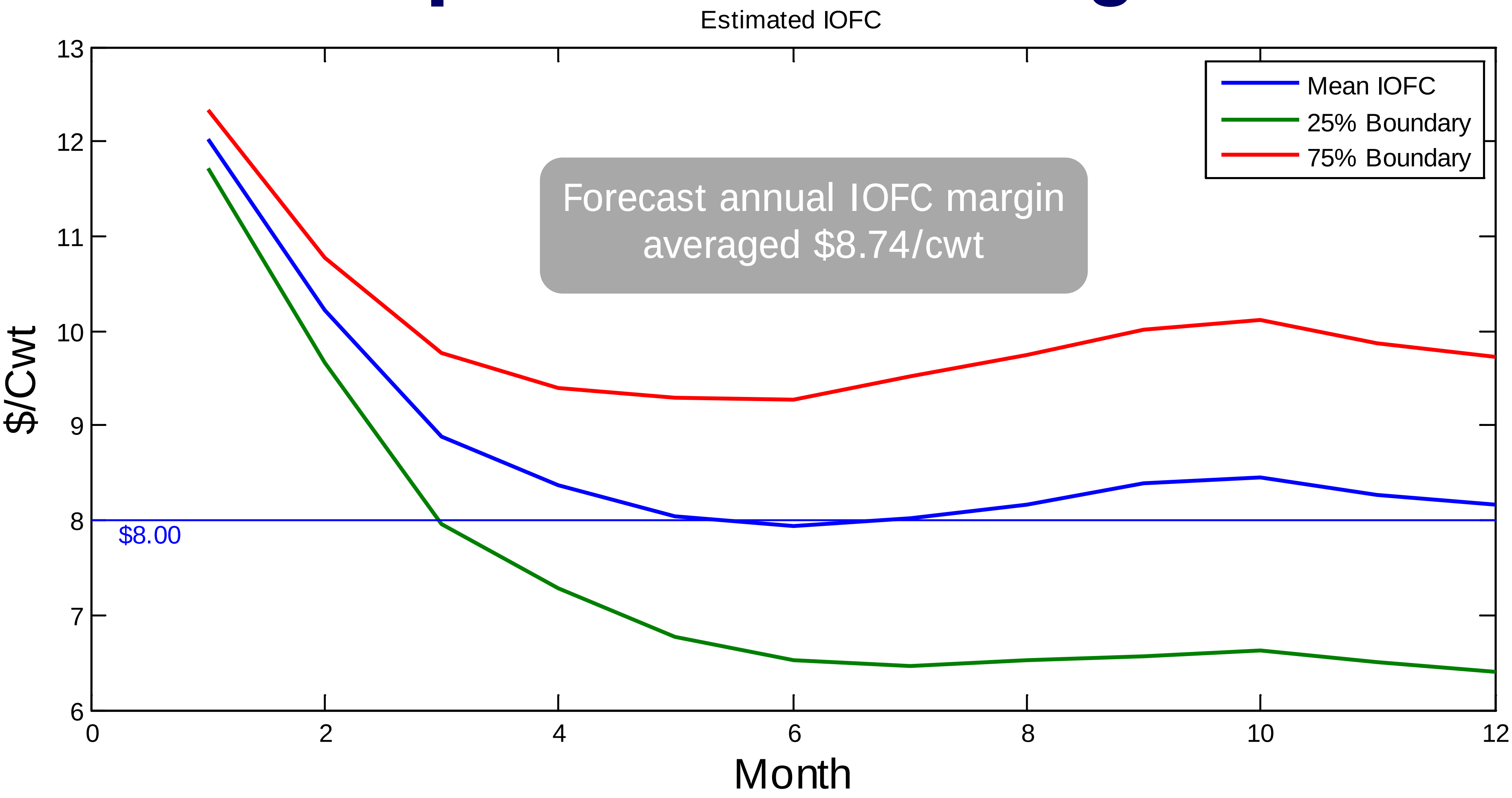
When to Buy "More" Coverage

- When forecast margins are at or below coverage levels and potential indemnities exceed premium and administrative fees
- Buy maximum coverage level and coverage percentage (Expensive)

When to Buy Less Coverage

- When forecast margins are above coverage levels and potential indemnities do not exceed participation costs
- Buy less coverage, keep coverage percentage at 90% (Free but Risky)

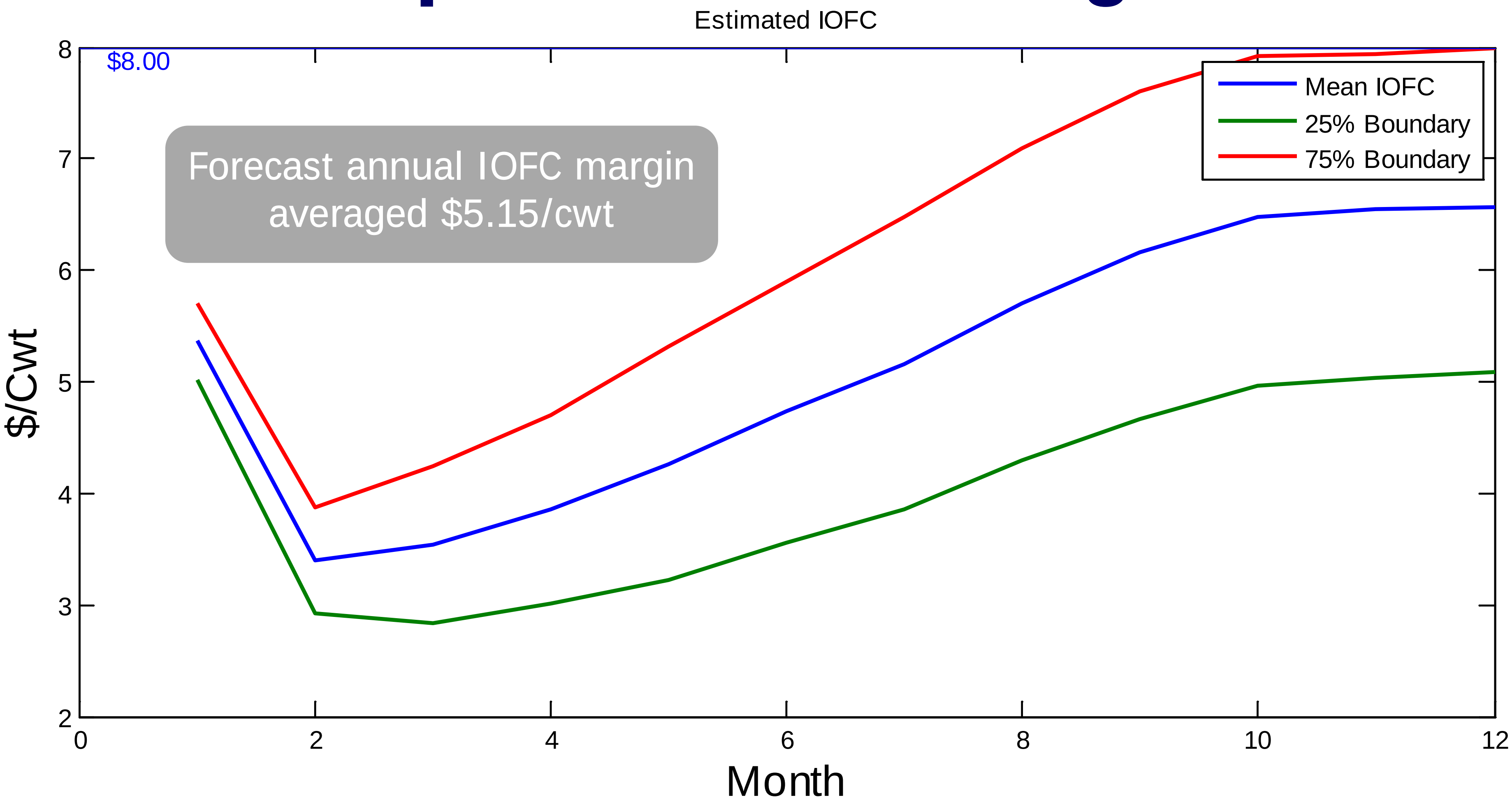
Expected 2008 Margin



Strategy: Pick $4 Coverage

farmdoc WEBINARS

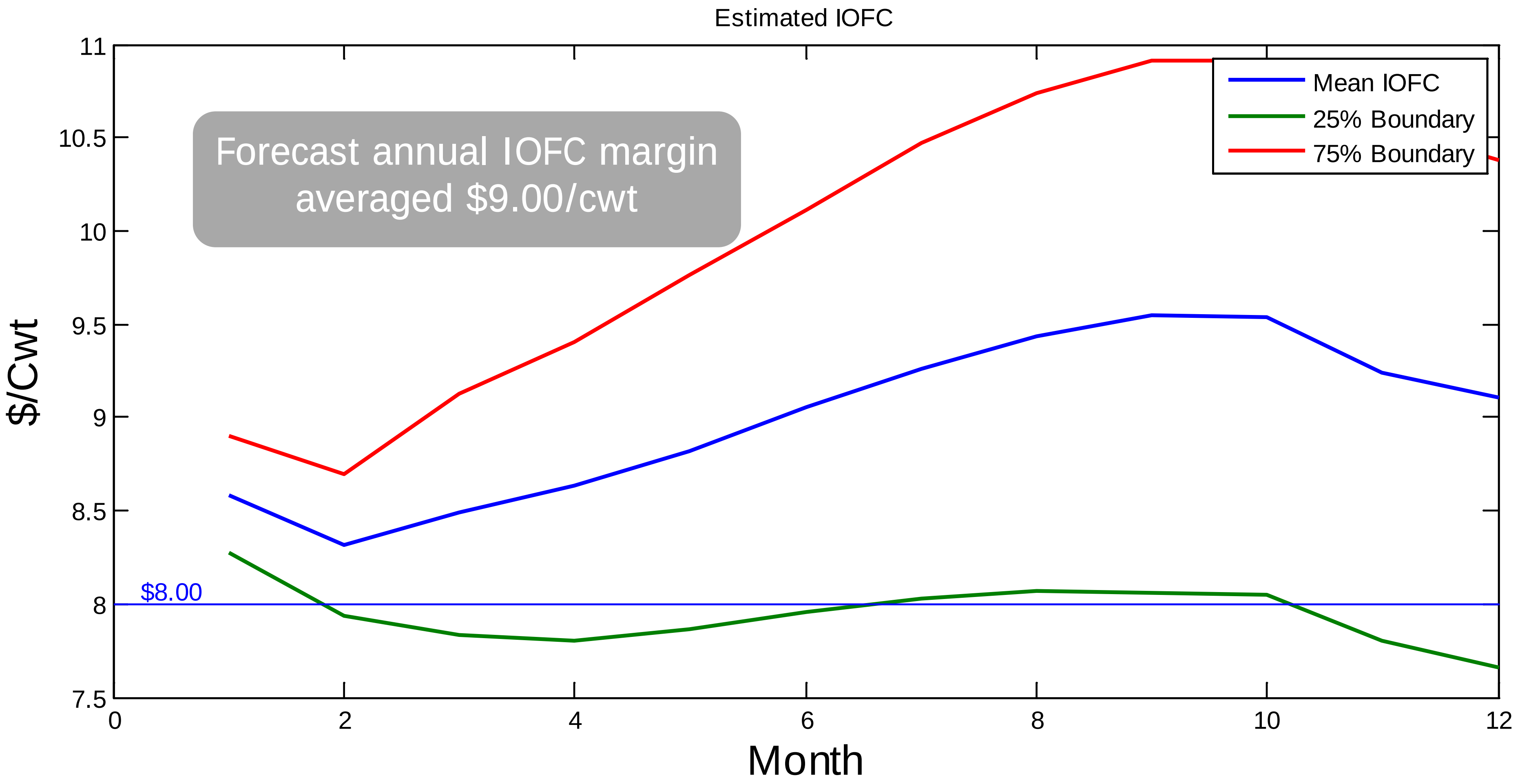
Expected 2009 Margin



Strategy: Pick $8 Coverage

farmdoc WEBINARS

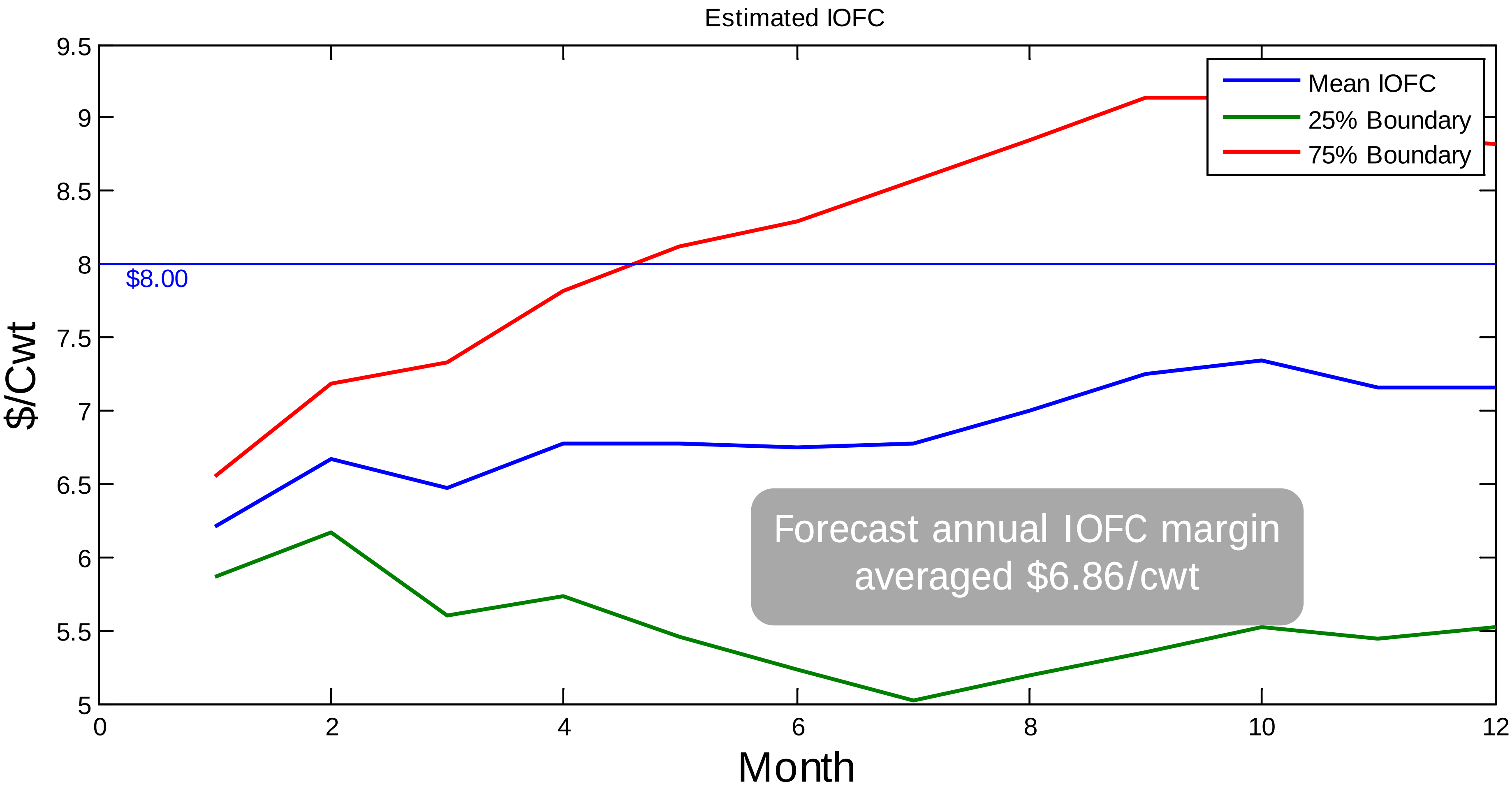
Expected 2010 Margin



Strategy: Pick $4 Coverage

farmdoc WEBINARS

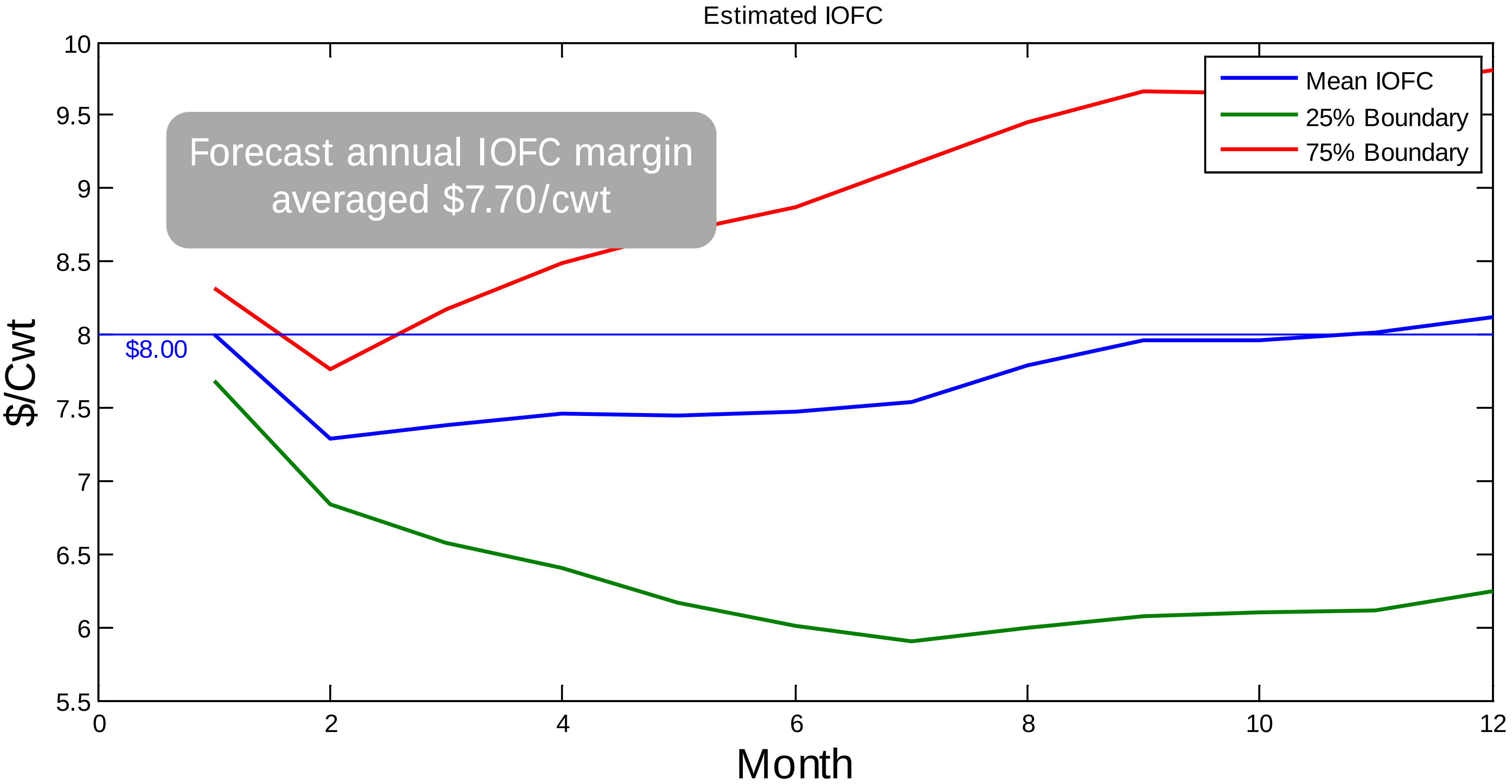
Expected 2011 Margin



Strategy: Pick $8 Coverage

farmdoc WEBINARS

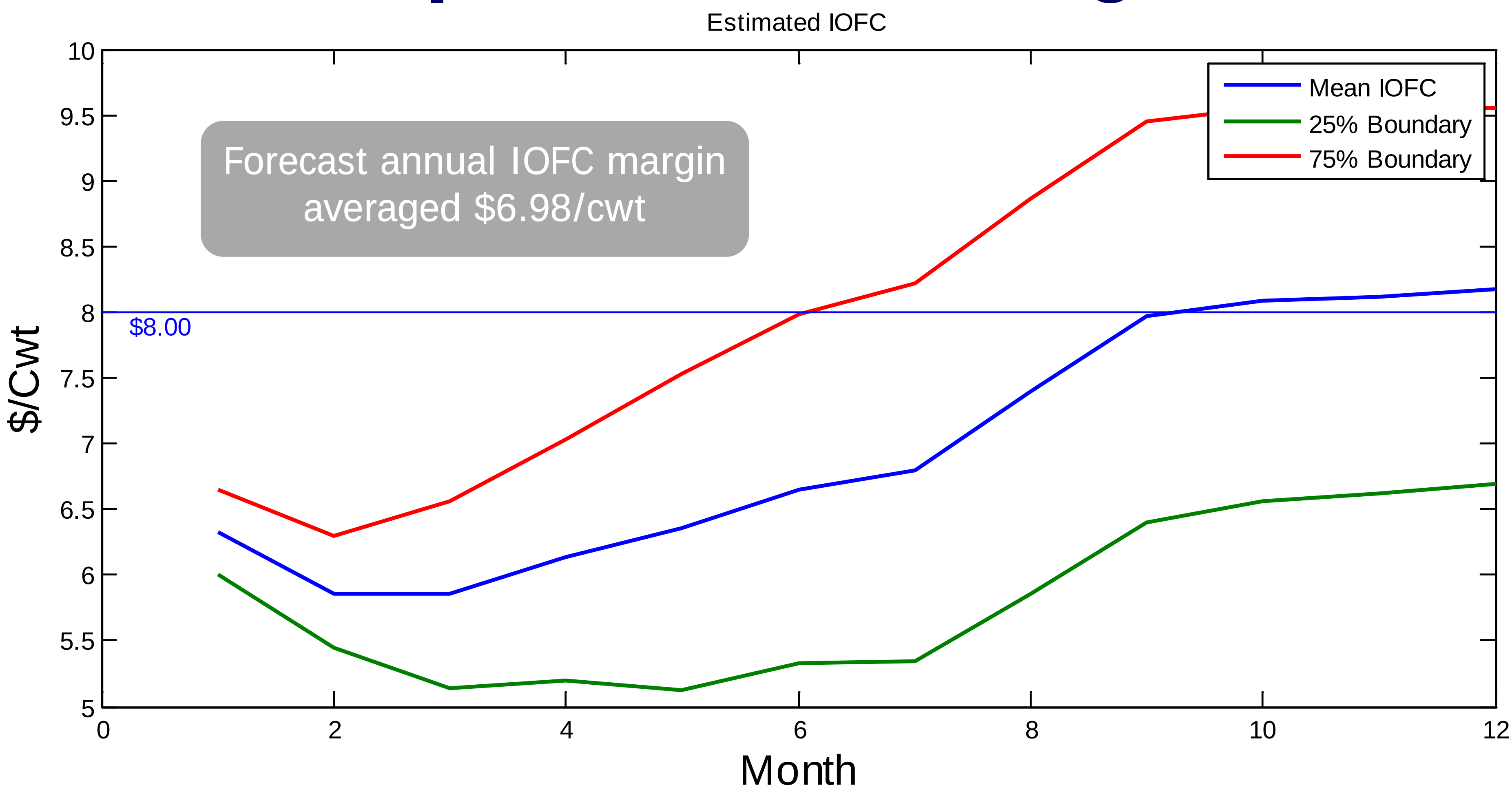
Expected 2012 Margin



Strategy: Pick $8 Coverage

farmdoc WEBINARS

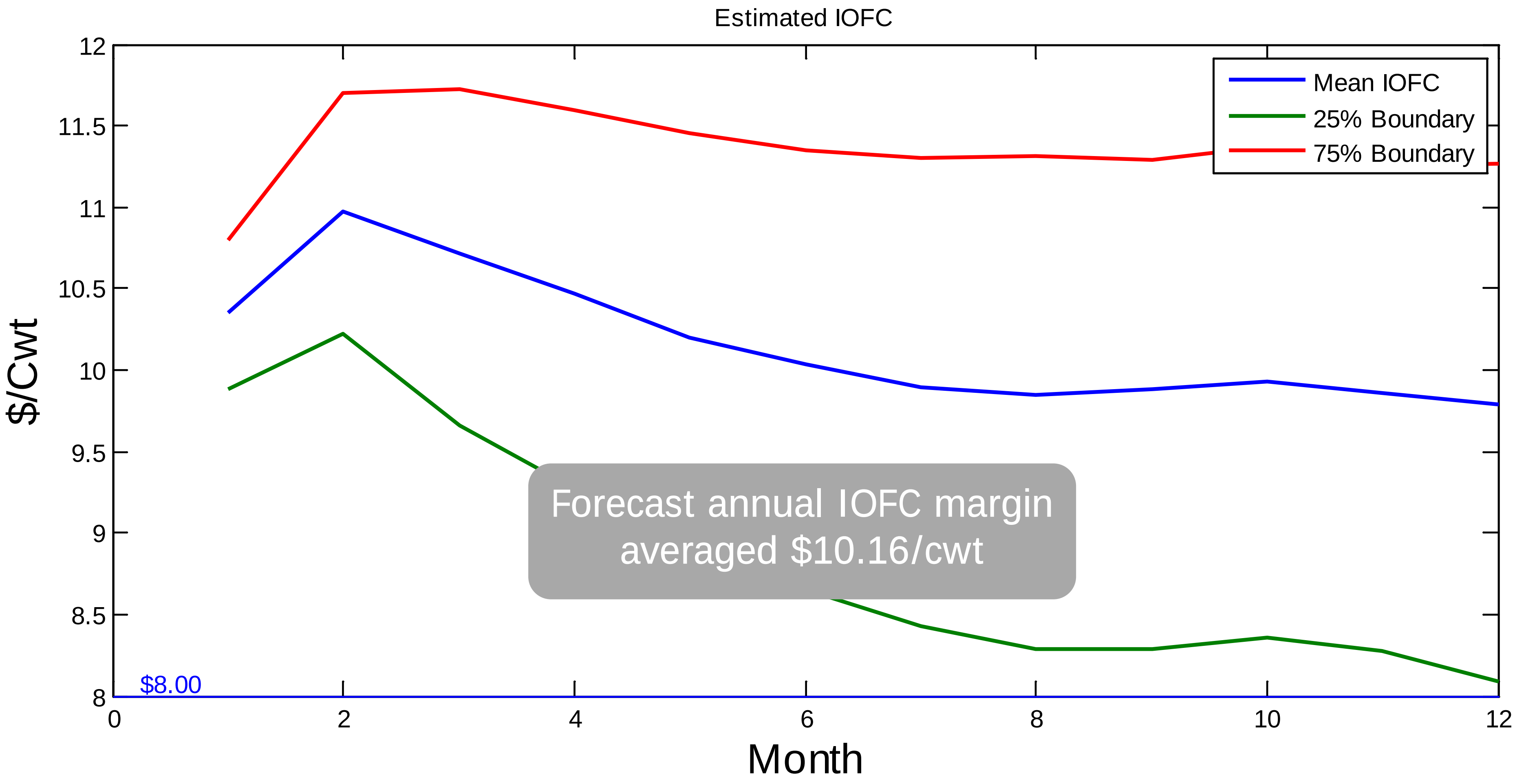
Expected 2013 Margin



Strategy: Pick $8 Coverage

farmdoc WEBINARS

Expected 2014 Margin



Strategy: Pick $4 Coverage

farmdoc WEBINARS

Performance Evaluation

4 Million Pound Production History (Approx. 185 Cows)

Year	Optimal Coverage Level (CME Forecast Margin)	Net Expected Benefits*	Coverage Level (Historical Margin)	Net Benefits**	Evaluation
2008	$4	$462.34	$4	-$100	Right Choice
2009	$8	$89,995.21	$8	$106,714.50	Right Choice
2010	$4	-$73.45	$4	-$100	Right Choice
2011	$8	$38,470.11	$4	-$100	**Over Insured**
2012	$8	$16,402.57	$8	$79,300.41	Right Choice
2013	$8	$38,489.32	$8	$37,070.29	Right Choice
2014	$4	-$80.69	NA	NA	Unknown

*Average net benefit over 5,000 simulations

** For demonstrative purposes only.

Strategy matters in determining performance of margin protection program. Anticipating the risk environment using futures can help to maximize returns, but carries additional risk.

farmdoc WEBINARS

MPP Considerations

- How well does MPP correlate to farm margins?
- What level of risk is acceptable?
  - Do you feel better with consistent strategy?
  - Are you comfortable changing coverage based on anticipated risk?

Margin Protection Facts

- **MPP can provide revenue support during multi-year losses in farm equity**
- May provide coverage at levels greater than CME futures would provide (e.g. 2009, 2013)
- Coverage may be cheaper than LGM-D, futures, and options
- Is not actuarially fair as premiums are not based on milk and feed market prices

Unanswered Questions

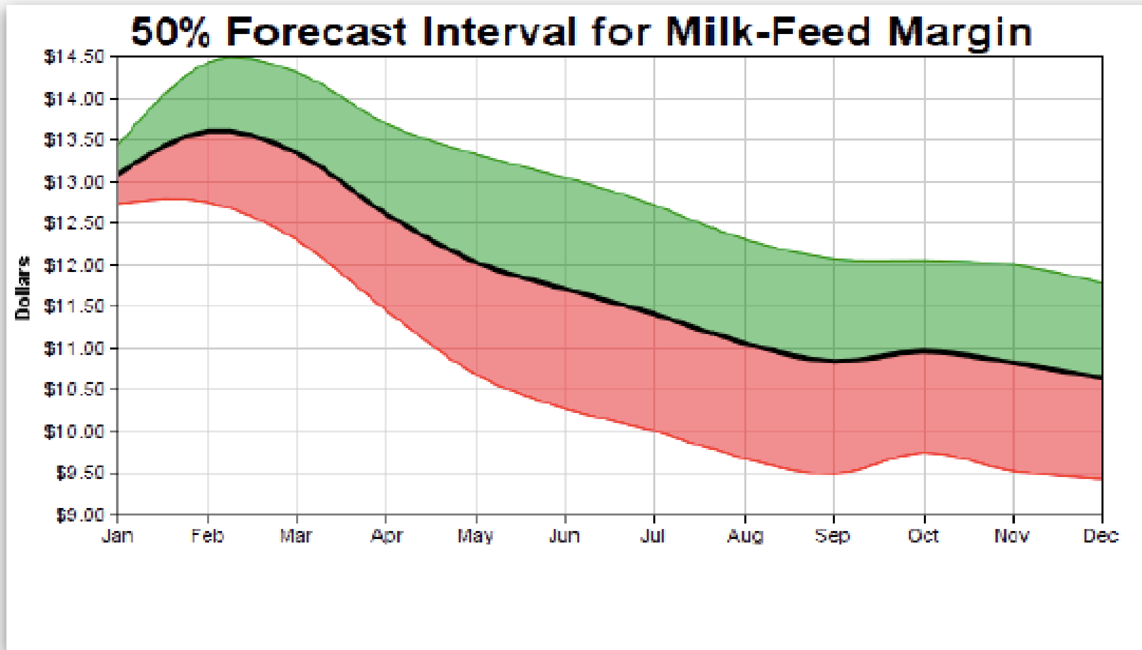
- Sign-up deadline compared to coverage start date
- How will premiums be calculated?
- How will premiums be paid (annually, bi-monthly,…,at end of year)
- Treatment of new operations versus purchase of existing dairy

FSA Regulations Will Provide Additional Clarity

September 1, 2014 Deadline

Coming Soon: Web-Based Decision Tool

Log Off | Update Contact Info | Update Milk Production & Prices | Forecast Margin | Game



Month	Low	High
Jan	$12.74	$13.44
Feb	$12.76	$14.43
Mar	$12.30	$14.32
Apr	$11.46	$13.70
May	$10.69	$13.33
Jun	$10.28	$13.05
Jul	$10.02	$12.73
Aug	$9.68	$12.31
Sep	$9.50	$12.08
Oct	$9.75	$12.06
Nov	$9.54	$12.01
Dec	$9.44	$11.79

Confidence Interval: 50%

www.dairymarkets.org

farmdoc WEBINARS

Questions?

Please continue to submit questions during this part of the webinar

John Newton

jcnewt@Illinois.edu

@New10_AgEcon

Visit the 'Downloads' page at farmdoc.illinois.edu/webinars

farmdoc WEBINARS