



The 4-State Feed Cost Evaluator

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What is the Feed Cost Evaluator?

- Web-based interactive database system to monitor feed costs and IOFC for dairy farms
- Log-in system to “benchmark” feed costs and IOFC:
 - Temporarily (same farm across time)
 - Spatially (among users and different farms)
- Powerful analysis system to investigate (drill down) the main causes of feed costs and IOFC differences
- More than 65 users to October 2010



4-STATE DAIRY EXTENSION FEED COST EVALUATOR

UWEX-DAIRY MANAGEMENT

Farms | Ingredients | Rations | Summary | Analysis

4-STATE DAIRY EXTENSION FEED COST EVALUATOR

UWEX-Dairy Management

Username

Password

Login

Create New Account

[Change Password](#)

©Dairy Management

IOFC

Income Over Feed Supplement Cost Database is a novel Application to allow agents/farm owners to enter farm details and perform analysis on individual as well as multiple farms depending on herd size, month and year

UWEX

DairyMGT Home

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4-STATE DAIRY EXTENSION FEED COST EVALUATOR

UWEX-DAIRY MANAGEMENT

Farms | Ingredients | Rations | Summary | Analysis

LOGOUT

FARMS

View & Edit Farms

Farm Name	<input type="text"/>
<input type="button" value="Add Farm"/>	

Farm Name

Farm1
Farm2
Farm3
Farm4
Farm5
Farm6
Farm7
Farm8
Farm9
Farm10

FARMS
(View existing farms, add new farms, and delete farms)

IOFC DATABASE

Welcome to IOFC Database. These are the suggested steps for using the system.

1. In this page, you can add or delete farms. To add a farm enter a farm name and select the county where the farm is located and click "Add Farms". To delete a farm, delete the farm name and click save.
2. Once the farms are defined, you can start defining the "Ingredients" on the ingredients page, their DM composition, and prices used on each particular farm.
3. Once the ingredients are entered, you can define the rations for different group of cows in the "Ration" page.
4. Once you have defined all ingredients and rations, you can see the IOFC summary at the "Summary" page. On this page, you would first need to enter the milk production and price.

Forages

INGREDIENTS

Add/Edit Ingredients in the Farm

Farm Name
 Superior Farm

Month
 April 2010

Forage	%DM	Price As Fed \$/ton	Price DM \$/ton
Corn Silage-Cosi	33		130
Hay Forage	85	140	
Hay Forage-	85	145	
Hoekstra hay	84	120	
Canary hay	84	55	
Bagged Haylage	38	62	
Straw	92	75	
Alf Silage-Also	38		174
Hay Forage	38		128



Concentrates

Energy Protein Supplements	%DM	Price As Fed \$/ton	Price DM \$/ton
Corn-CGG	85		169.41
SoybeanMeal SBM			
Dry corn	85	207	
Prefresh conc	90.2	145.8	
Lactating Protein	90.9	260	
TMR Weighback	50	35	
Energy Booster	98	1450	
Bran Syrup	60	41.6	



Min-Vitamins and Byproducts

Min-Vit Supplement & ByProduct	%DM	\$/cwt
Calcium Carbonate		
Urea	99	28
DC Mineral	98	58.2
Lactating Mineral	95.5	41.5
Yeast	98	49.1



Milk Revenue

Farm Name

Superior Farm

Month

April 2010

Farm Information

Farm Name

Superior Farm

Person Reporting

Reporter1

Farm Owner/UserName

Dairy

Last Updated

2010-04-26

Number of Cows

1051

Milking

242

Dry

Milk Bulk Tank

81

Production(lb/cow/day)

3.5

Milk ButterFat(%)

3.1

Milk Protein(%)

Milk Price(\$/cwt)

14.75

Milk Revenue (\$/cow/day)

11.95



Rations

RATIONS

Edit Rations of the Farm

Farm Name	Month
Superior Farm 2	April 2010

Ration Group Information

	Name	Number	Milking
Ration Group 1	Lactation 1	459	<input checked="" type="checkbox"/>
Ration Group 2	Lactation 2	715	<input checked="" type="checkbox"/>
Ration Group 3	Postfresh	112	<input checked="" type="checkbox"/>
Ration Group 4	Dry	156	<input type="checkbox"/>
Ration Group 5	Prefresh	91	<input type="checkbox"/>
Ration Group 6	Ration 6	0	<input type="checkbox"/>
Ration Group 7	Ration 7	0	<input type="checkbox"/>
Ration Group 8	Ration 8	0	<input type="checkbox"/>
Ration Group 9	Ration 9	0	<input type="checkbox"/>

Rations

Farm Name
Farm3

Month
April 2010

Forage

Ration Group (lb/cow/d) As Fed

	P	Ration1	Ration2	Ration3	Ration4	Ration5	Ration6	Ration7	Ration8	Ration9
Hay	<input type="checkbox"/>		4	4.259	1.6	1.48	1.48			
Wheat Straw	<input type="checkbox"/>	3.7	1	0.48	0.41	0.37	0.37			
Wheat Straw Purch	<input checked="" type="checkbox"/>	3.7	1	0.48	0.41	0.37	0.37			
Hay Forage	<input type="checkbox"/>	15.76	4.89	6.522	18.36	17.6	17.6			
Corn Silage-Cosi	<input type="checkbox"/>	30.33	30.33	30.33	57.2	48.42	48.42			

Energy/Protein Supplements

Ration Group (lb/cow/d) As Fed

	P	Ration1	Ration2	Ration3	Ration4	Ration5	Ration6	Ration7	Ration8	Ration9
Corn-CGG	<input type="checkbox"/>				6.33	5.84	5.84			
Wet Gluten	<input checked="" type="checkbox"/>	2.94		6.38	10.82	9.99	9.99			
Protein	<input checked="" type="checkbox"/>				13.68	12.6	12.6			
Permeate	<input checked="" type="checkbox"/>			4	9	7.75	7.75			
Post Supplement	<input checked="" type="checkbox"/>			15.6						
Closeup mix	<input checked="" type="checkbox"/>		7.3							
SoybeanMeal SBM	<input type="checkbox"/>									

Min-Vit & Additive Supplements

Ration Group (lb/cow/d)

	Ration1	Ration2	Ration3	Ration4	Ration5	Ration6	Ration7	Ration8	Ration9
Calcium Carbonate									
Dry cow Mineral	0.6								
lactating mineral				0.75	0.69	0.69			

Group Summary

Farm Name

Farm3

Month

April 2010

	Dry		Dry	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	3.29	0.19	21.46	1.28
Energy/Protein Supplement	1.59	0.05	0	0
Min-Vit & Additive Supplement	0.6	0.16	-	-
Total Feed	5.48	0.4	21.46	1.28
DMI (lb/cow/d)	26.94			
Feed Costs (\$/cow/d)	1.69			
Number of Cows (#)	60			

	CU		Dry	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	0.89	0.05	17.46	1.05
Energy/Protein Supplement	6.64	1.2	0	0
Min-Vit & Additive Supplement	0	0	-	-
Total Feed	7.53	1.25	17.46	1.05
DMI (lb/cow/d)	24.99			
Feed Costs (\$/cow/d)	2.3			
Number of Cows (#)	60			

	Fresh		Lact	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	0.43	0.02	17.97	1.08
Energy/Protein Supplement	18.13	2.04	0	0
Min-Vit & Additive Supplement	0	0	-	-
Total Feed	18.56	2.06	17.97	1.08
DMI (lb/cow/d)	36.53			
Feed Costs (\$/cow/d)	3.14			
Number of Cows (#)	33			

	main		Lact	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	0.36	0.02	30.76	1.77
Energy/Protein Supplement	20.44	2.1	4.81	0.41
Min-Vit & Additive Supplement	0.75	0.38	-	-
Total Feed	21.55	2.5	35.57	2.17
DMI (lb/cow/d)	57.13			
Feed Costs (\$/cow/d)	4.68			
Number of Cows (#)	477			

	2 year		Lact	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	0.33	0.02	27.11	1.57
Energy/Protein Supplement	18.71	1.93	4.44	0.38
Min-Vit & Additive Supplement	0.69	0.35	-	-
Total Feed	19.73	2.3	31.55	1.95
DMI (lb/cow/d)	51.28			
Feed Costs (\$/cow/d)	4.25			
Number of Cows (#)	259			

	hospital		Lact	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	0.33	0.02	27.11	1.57
Energy/Protein Supplement	18.71	1.93	4.44	0.38
Min-Vit & Additive Supplement	0.69	0.35	-	-
Total Feed	19.73	2.3	31.55	1.95
DMI (lb/cow/d)	51.28			
Feed Costs (\$/cow/d)	4.25			
Number of Cows (#)	18			

	Ration 7		Dry	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	0	0	0	0
Energy/Protein Supplement	0	0	0	0
Min-Vit & Additive Supplement	0	0	-	-
Total Feed	0	0	0	0
DMI (lb/cow/d)	0			
Feed Costs (\$/cow/d)	0			
Number of Cows (#)	0			

	Ration 8		Dry	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	0	0	0	0
Energy/Protein Supplement	0	0	0	0
Min-Vit & Additive Supplement	0	0	-	-
Total Feed	0	0	0	0
DMI (lb/cow/d)	0			
Feed Costs (\$/cow/d)	0			
Number of Cows (#)	0			

	Ration 9		Dry	
	Purchased		Home-Grown	
	DMI	Cost	DMI	Cost
Forage	0	0	0	0
Energy/Protein Supplement	0	0	0	0
Min-Vit & Additive Supplement	0	0	-	-
Total Feed	0	0	0	0
DMI (lb/cow/d)	0			
Feed Costs (\$/cow/d)	0			
Number of Cows (#)	0			

Farm Summary

Farm Name

Farm3

Month

April 2010

Summary	Milking	Dry
DMI (lb/cow/day)	54.2	25.97
MILK/DMI	1.75	
FCM/DMI	1.64	
ECM/DMI	1.74	
PURCHASED FEED COST (\$/cow/day)	2.41	0.83
HOME GROWN FEED COST (\$/cow/day)	2.05	1.17
SUPPLEMENT FEED COST (\$/cow/day)	0.01	
TOTAL FEED COSTS (\$/cow/d)	4.46	1.99
INCOME OVER PURCHASED SUPPLEMENT COST (IOPSC) (\$/cow/day)	15.21	
INCOME OVER PURCHASED FEED COSTS (IOPFC) (\$/cow/day)	12.81	
INCOME OVER FEED COSTS (IOFC) (\$/cow/day)	10.76	



Analyses

4-STATE DAIRY EXTENSION FEED COST EVALUATOR

UWEX-DAIRY MANAGEMENT

Farms | Ingredients | Rations | Summary | Analysis

ANALYSIS

(Perform Analysis on Multiple Farms)

Farm	Milking Cows	Month
Farm1	Less than 100	April 2010
Farm2	100 to 350	
Farm3	350-500	
Farm4	Greater than 500	
Farm5		

(Ctrl + Click to Make Multiple Selection)

Include in Analysis	Ingredient	%DM	Effective Price As Fed (\$/ton)	Price As Fed (\$/ton)	Price DM (\$/ton)
<input type="checkbox"/>	Corn Silage Cossi		0		
<input type="checkbox"/>	Hay Forage		0		
<input type="checkbox"/>	Corn CGG		0		
<input type="checkbox"/>	SoybeanMeal SBM		0		
		\$/cwt			
<input type="checkbox"/>	Milk Price	15			

Analyze

Clear Selections



Analyses

Farm	Milking Cows	Month
Farm1	Less than 100	April 2010
Farm2	100 to 350	
Farm3	350-500	
Farm4	Greater than 500	
Farm5		

(Ctrl + Click to Make Multiple Selection)

Standardized
 Farm/Mailbox

Analyze

Clear Selections

[Download Summary](#)

Net Summary

Farms Analyzed **10**

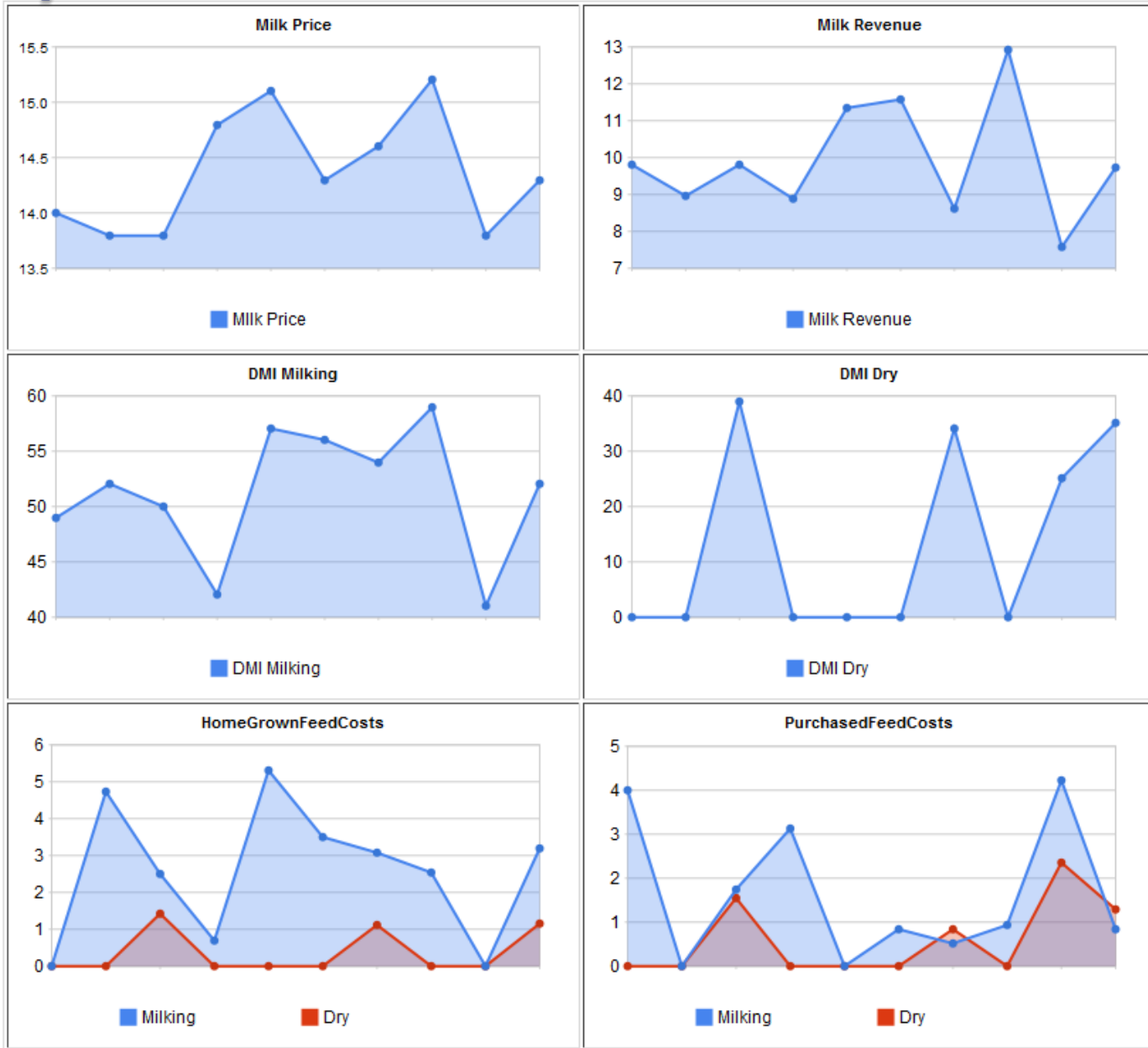
Farm Statistics

Farm Parameters	Min	25%Tile	Mean	75%Tile	Max
Milk Bulk Tank(lb/cow/day)	55	60	68.9	75	85
Milk Butterfat(%)	3.4	3.5	3.53	3.6	3.6
Milk Protein(%)	3	3.1	3.16	3.2	3.3
Milk Price(\$/cwt)	13.8	13.8	14.37	14.8	15.2
Milk Revenue(\$/cow/day)	7.59	8.88	9.92	11.33	12.92

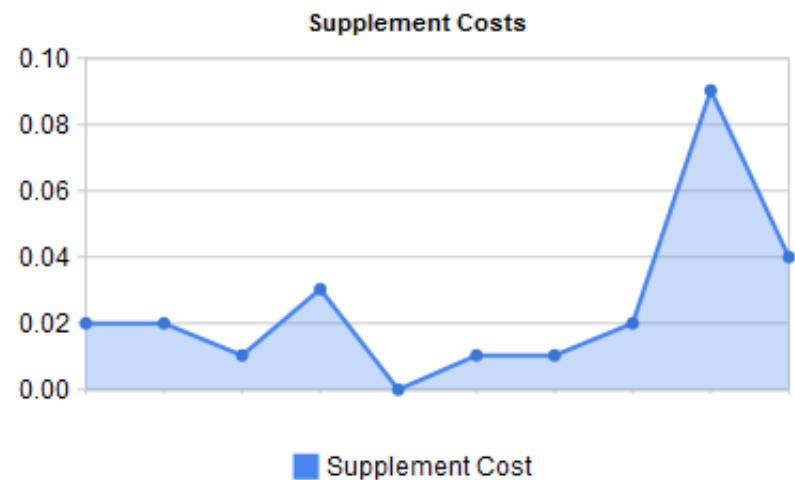
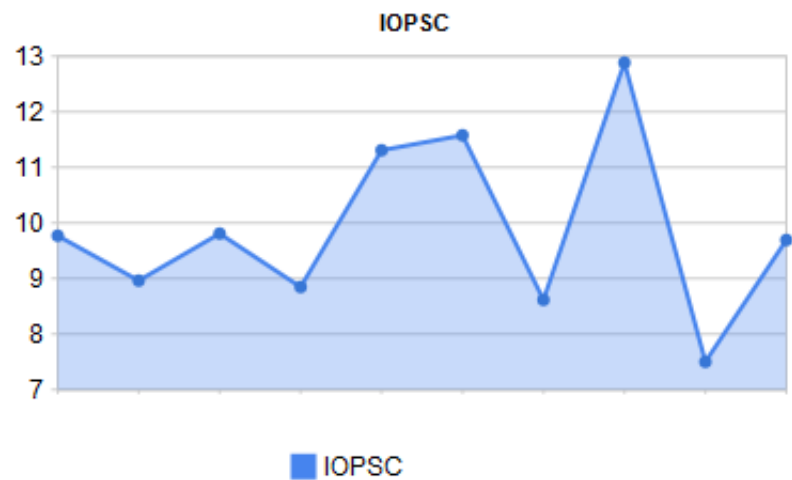
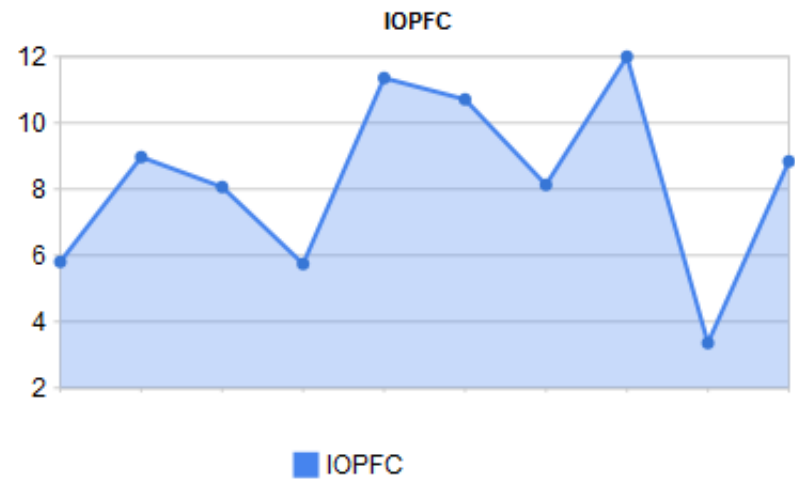
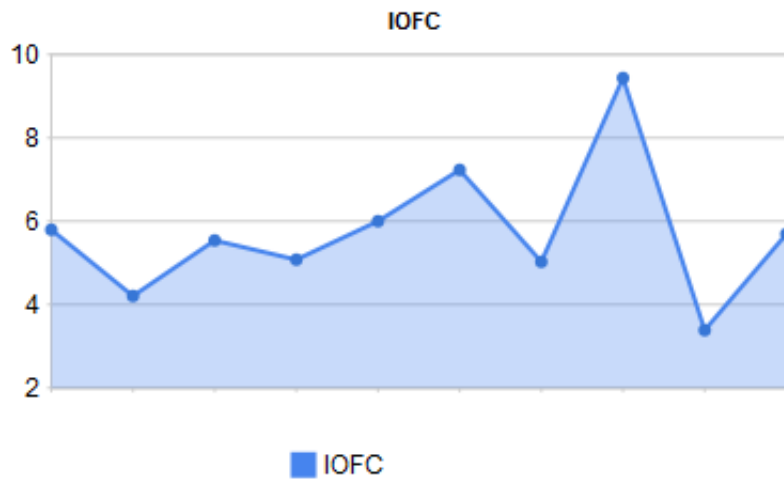
Summary	Milking					Dry				
	Min	25%Tile	Mean	75%Tile	Max	Min	25%Tile	Mean	75%Tile	Max
DMI (lb/cow/day)	41	49	51.2	56	59	25		33.25		39
MILK/DMI	1.09	1.31	1.35	1.43	1.45					
FCM/DMI	1.01	1.01	1.25	1.33	1.35					
ECM/DMI	1.08	1.32	1.35	1.45	1.46					
FORAGE COSTS (\$/cow/day)	1.81	2.32	2.62	2.99	3.53	0	0	2.39	2.35	2.79
ENERGY COSTS (\$/cow/day)	1.26	1.44	1.56	1.67	1.79	0	0	0.05	0	0.19
MINERAL COSTS (\$/cow/day)	0	0	0	0	0	0	0	0	0	0
PURCHASED FEED COST (\$/cow/day)	0	0.51	1.62	3.13	4.22	0.85		1.51		2.35
HOME GROWN FEED COST (\$/cow/day)	0	0.69	2.55	3.5	5.32	0		0.93		1.44
SUPPLEMENT COSTS (\$/cow/day)	0	0.01	0.03		0.09					
TOTAL FEED COSTS (\$/cow/day)	3.48	3.84	4.2	4.35	5.32	1.95		2.43		2.98
INCOME OVER PURCHASED SUPPLEMENT COSTS (IOPSC) (\$/cow/day)	7.5	5.79	9.9	11.32	12.9					
INCOME OVER PURCHASED FEED COSTS (IOPFC) (\$/cow/day)	3.37	5.79	8.3	10.74	11.99					
INCOME OVER FEED COSTS (IOFC) (\$/cow/day)	3.37	5.03	5.74	6	9.46					
INCOME OVER FEED COSTS per CWT (IOFC/cwt) (\$/cwt)	6.13	8.38	8.34	8	12.61					

Analyses

Graphical Representation
(Click on the Data Point for more information)



Analyses



Standardized Price Analyses

4-STATE DAIRY EXTENSION FEED COST EVALUATOR

UWEX -DAIRY MANAGEMENT

Farms

Ingredients

Rations

Summary

Analysis

LOGOUT

ANALYSIS

(Perform Analysis on Multiple Farms)

Farm	Milking Cows	Month
Farm1	Less than 100	April 2010
Farm2	100 to 350	
Farm3	350-500	
Farm4	Greater than 500	
Farm5		

(Ctrl + Click to Make Multiple Selection)

Standardized Farm/Mailbox

Include in Analysis	Ingredient	%DM	Effective Price As Fed (\$/ton)	Price As Fed (\$/ton)	Price DM (\$/ton)
<input type="checkbox"/>	Corn Silage Cosi		0		
<input type="checkbox"/>	Hay Forage		0		
<input type="checkbox"/>	Corn CGG		0		
<input type="checkbox"/>	SoybeanMeal SBM		0		
		\$/cwt			
<input type="checkbox"/>	Milk Price				

Analyze

Clear Selections

Groups of Farms Analyses

4-STATE DAIRY EXTENSION FEED COST EVALUATOR

UWEX -DAIRY MANAGEMENT

Farms

Ingredients

Rations

Summary

Analysis

LOGOUT

ANALYSIS

(Perform Analysis on Multiple Farms)

Farm	Milking Cows	Month	Compare all your farms with all farms from
Farm1	Less than 100	June 2010	cabrera
Farm2	100 to 350	May 2010	Dvk
Farm3	350-500	April 2010	
Farm4	Greater than 500		
Farm5			

(Ctrl + Click to Make Multiple Selection)

Standardized Farm/Mailbox

Analyze

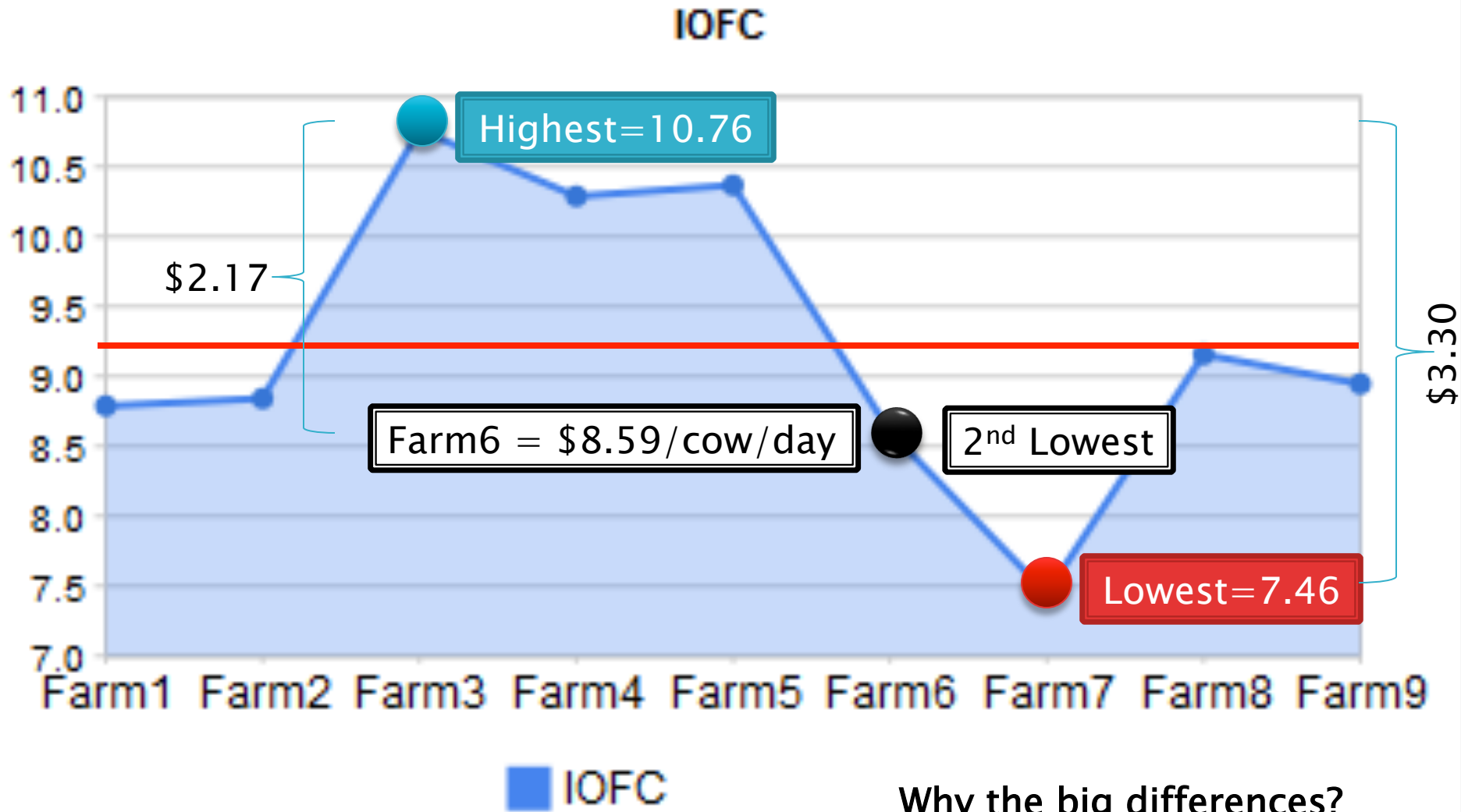
Clear Selections

A Case Study

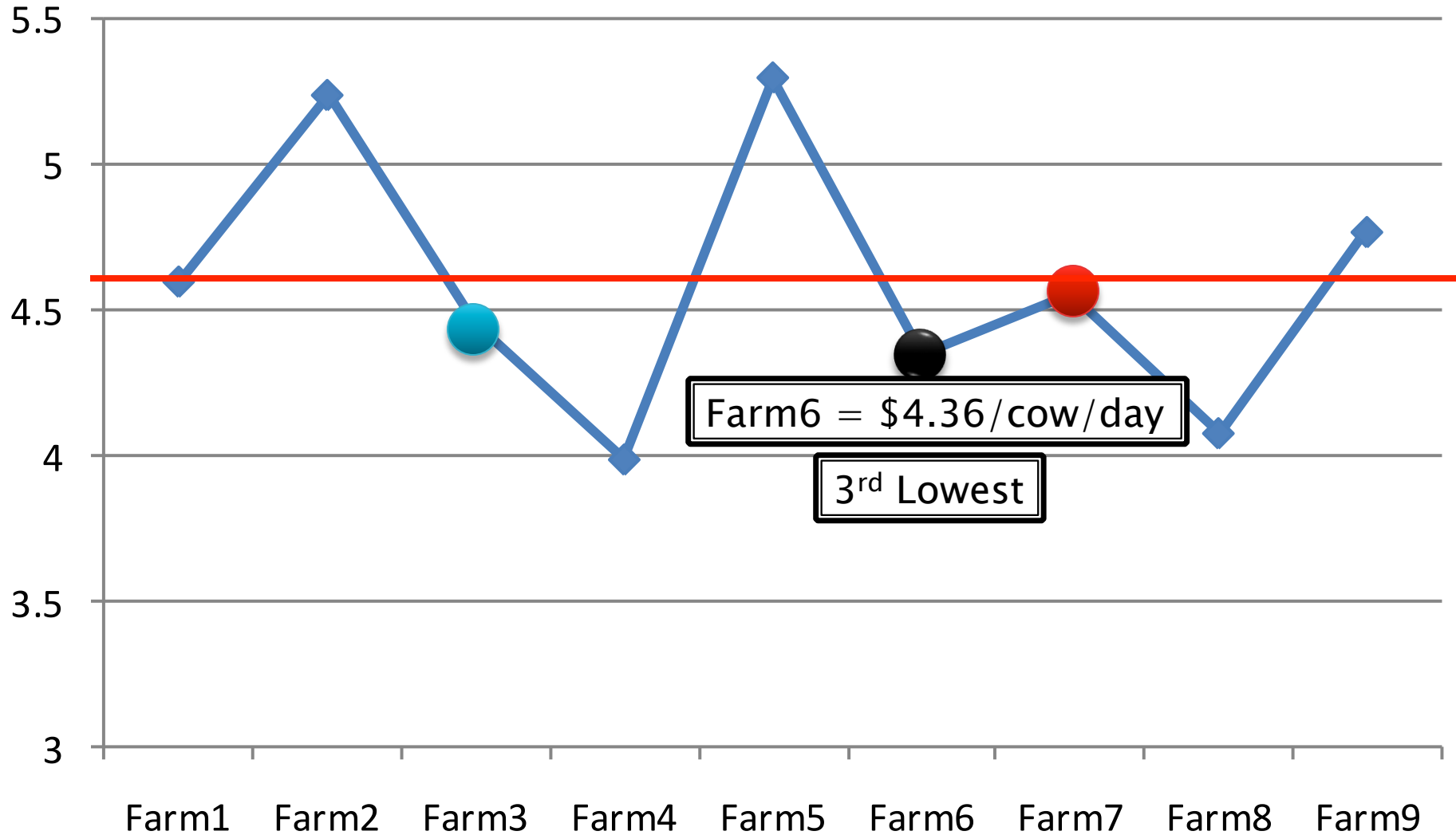
- 9 Wisconsin farms
- April Data
- Same Geographical Area
 - Fond Du Lac
 - ~ 12,000 cows
 - 25% cows in County
- Collected by: Paul Dyk



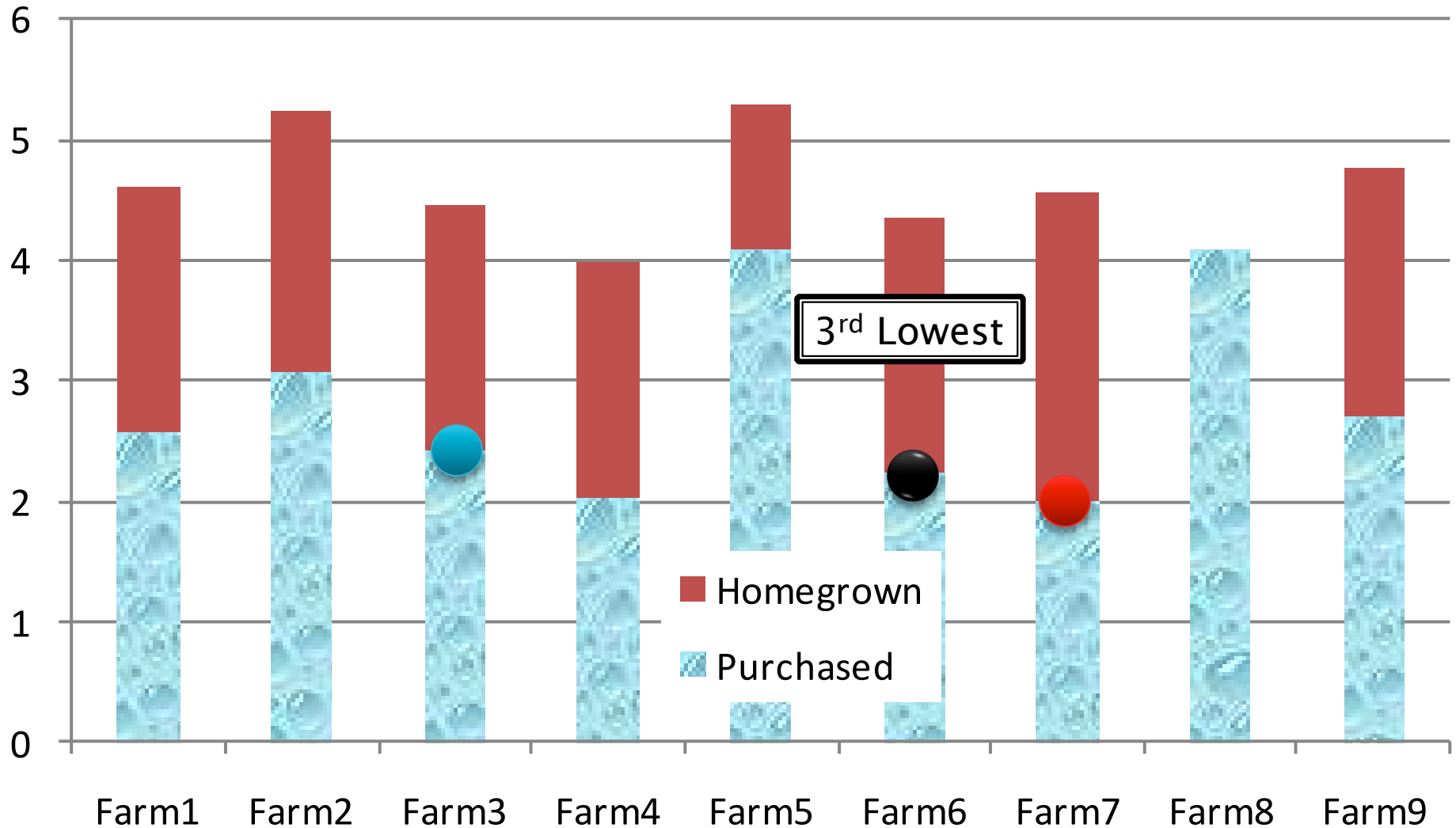
Income over Feed Cost (\$/cow/d)



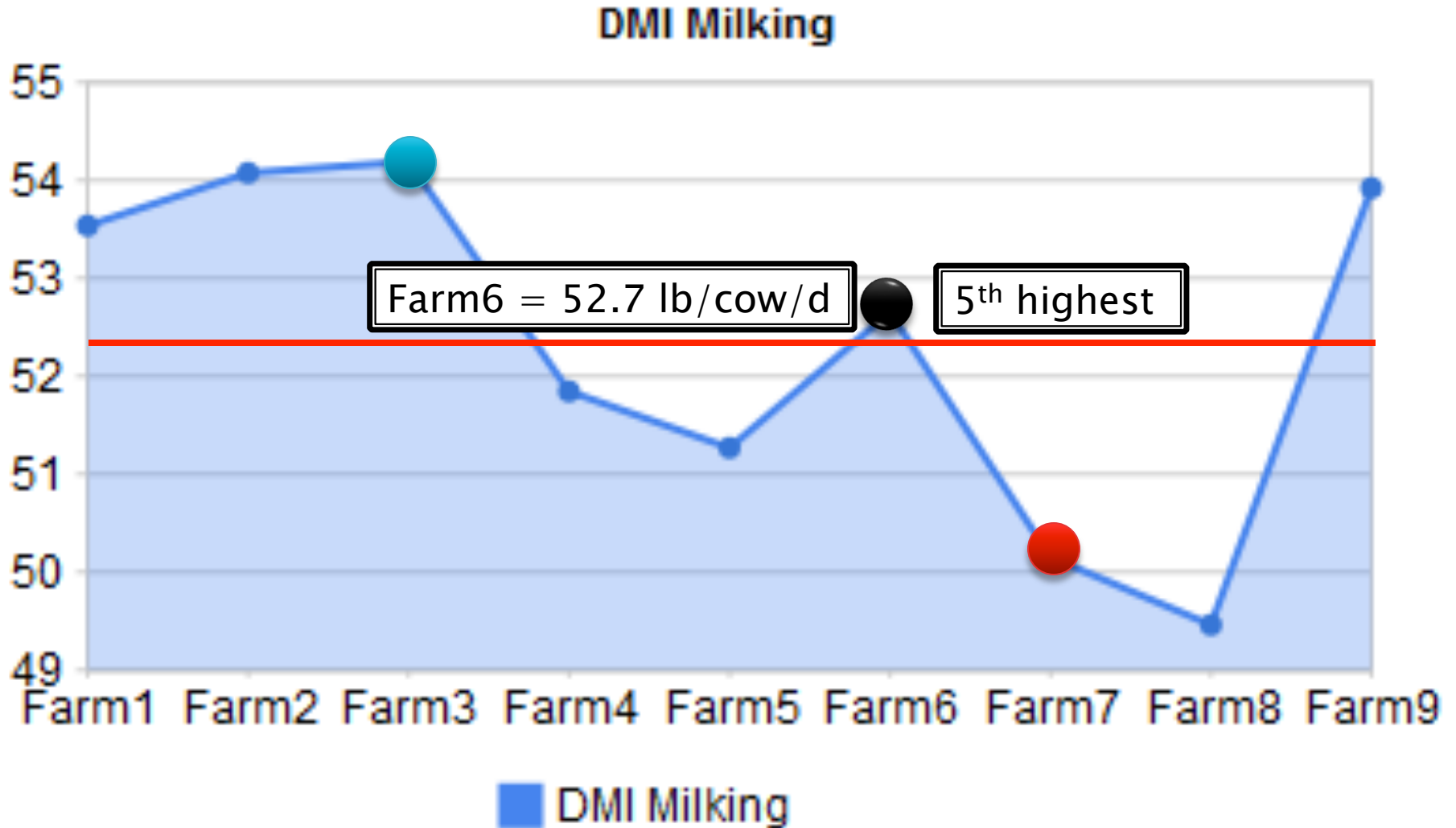
Feed Costs (Milking) (\$/cow/d)



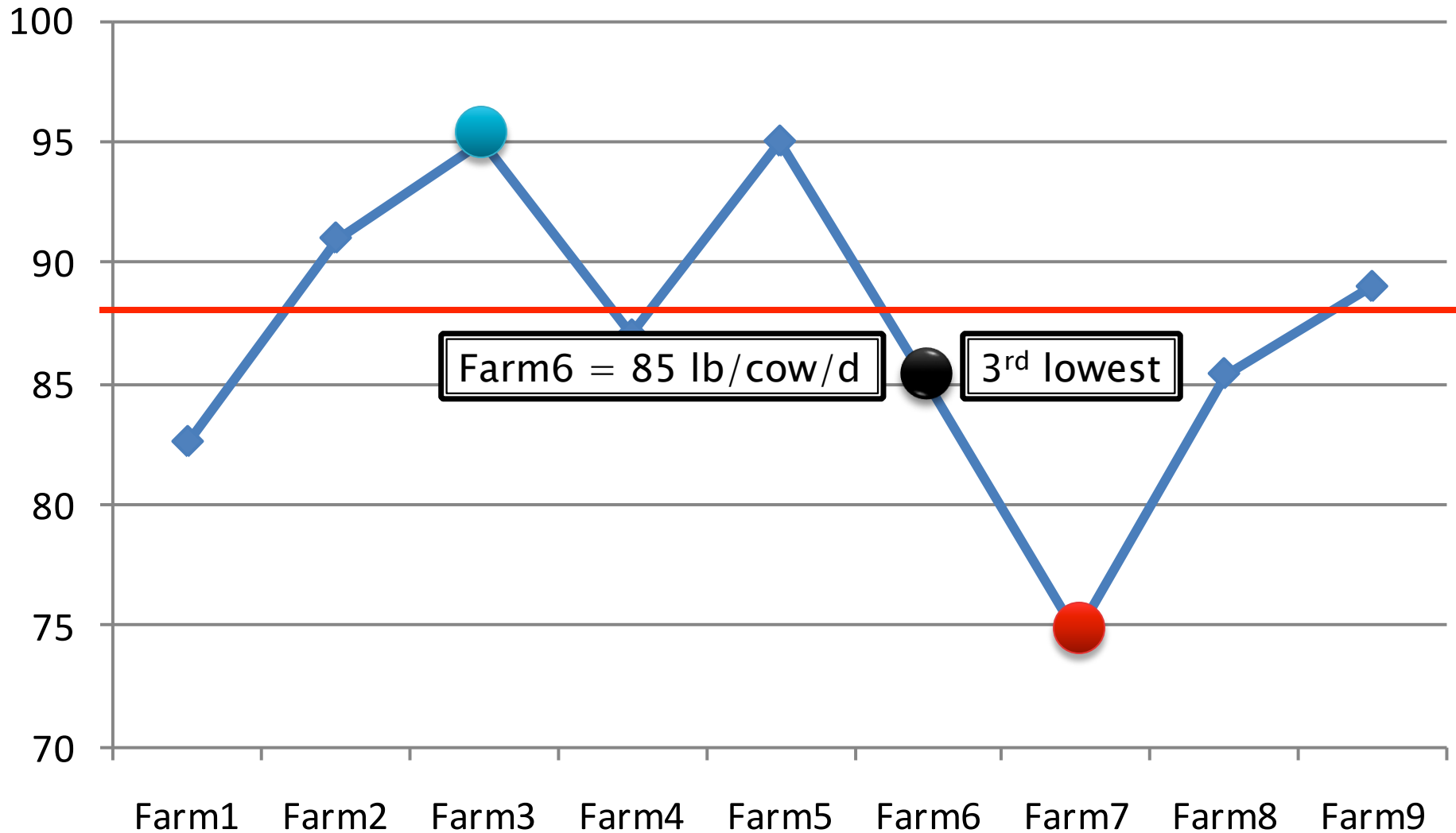
Feed Costs (Milking) (\$/cow/d)



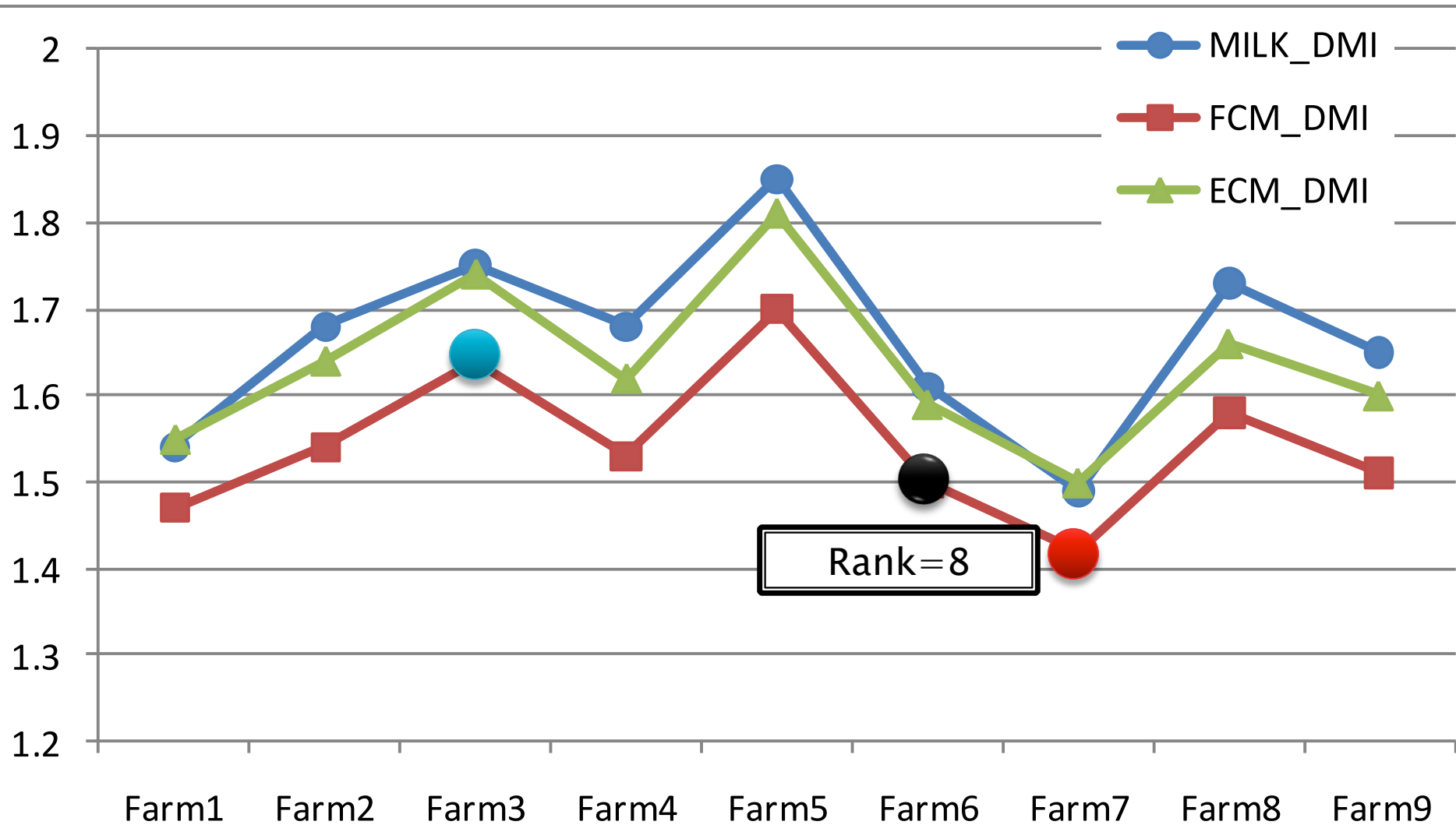
Dry Matter Intake (lb/cow/d)



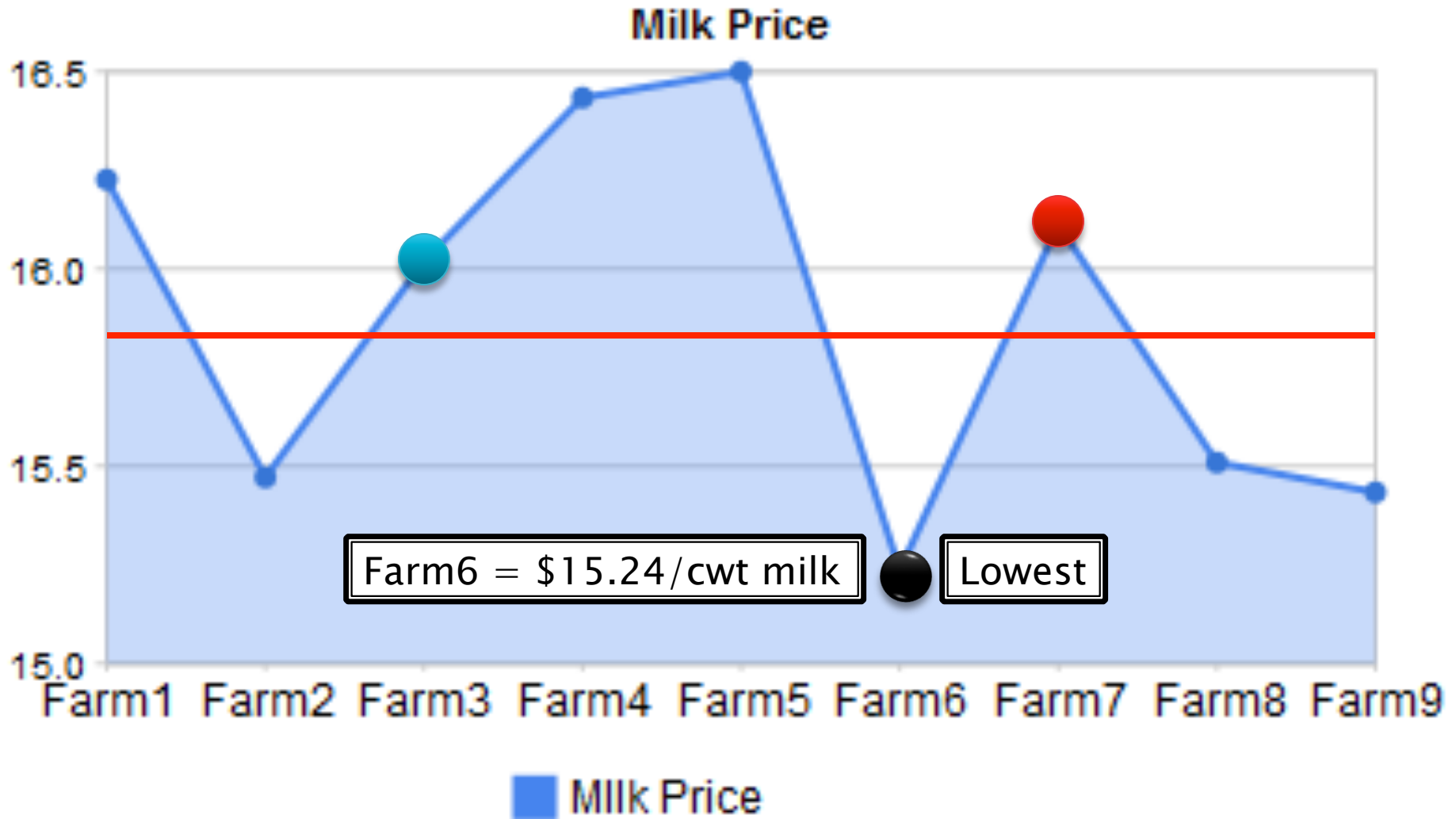
Milk Bulk Tank (lb/cow/d)



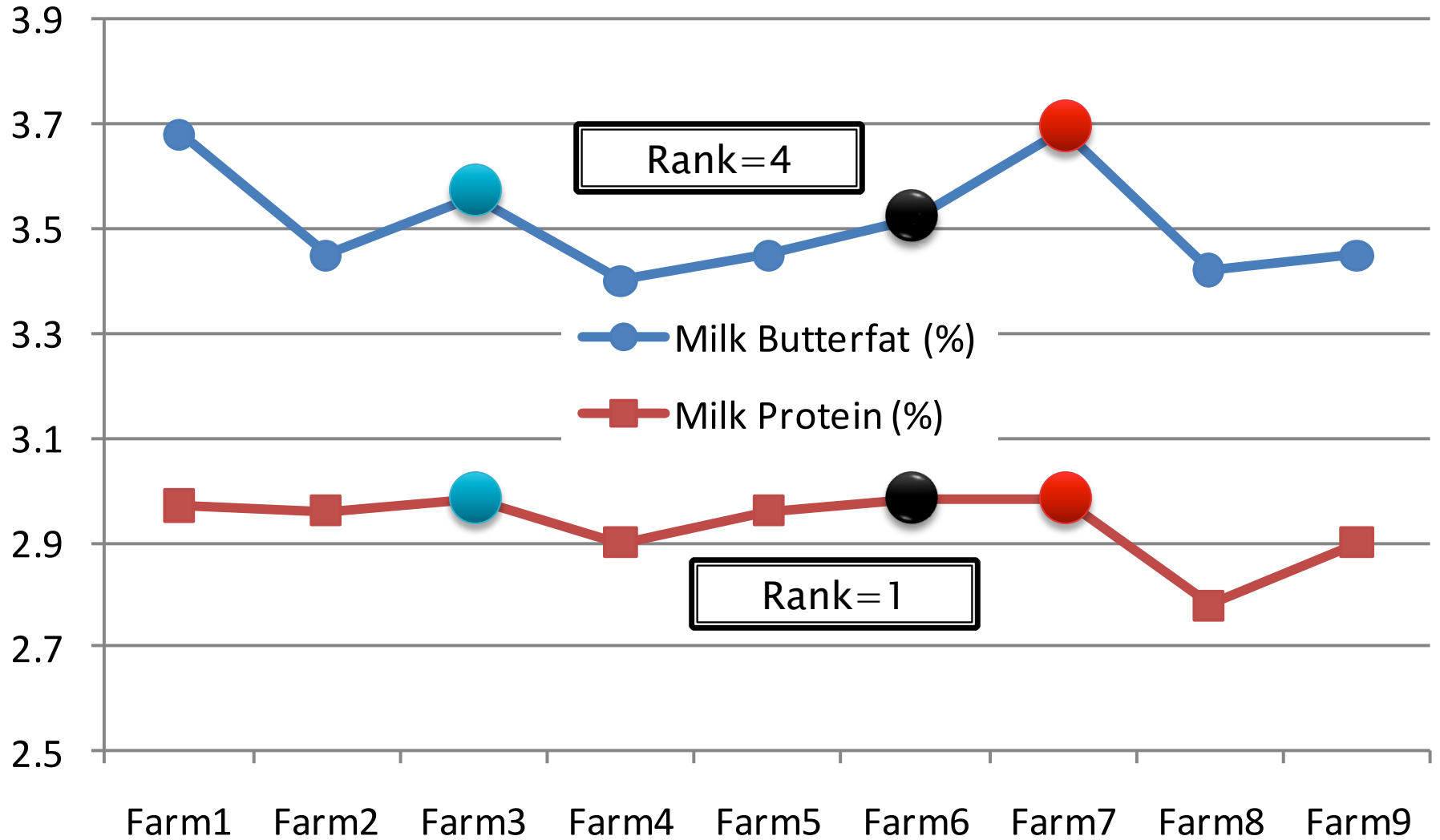
Feed Efficiency



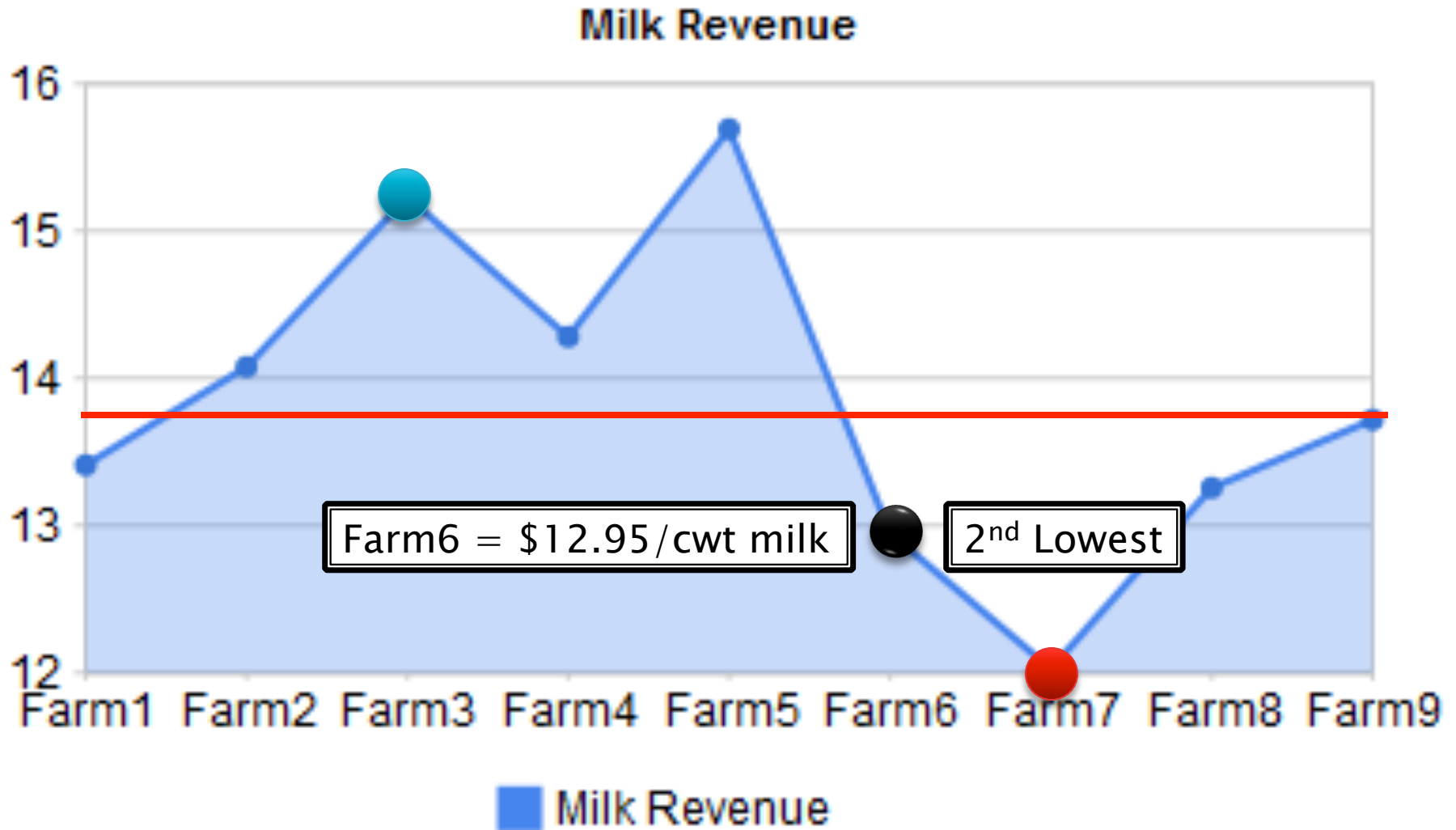
Milk Price (\$/cwt milk)



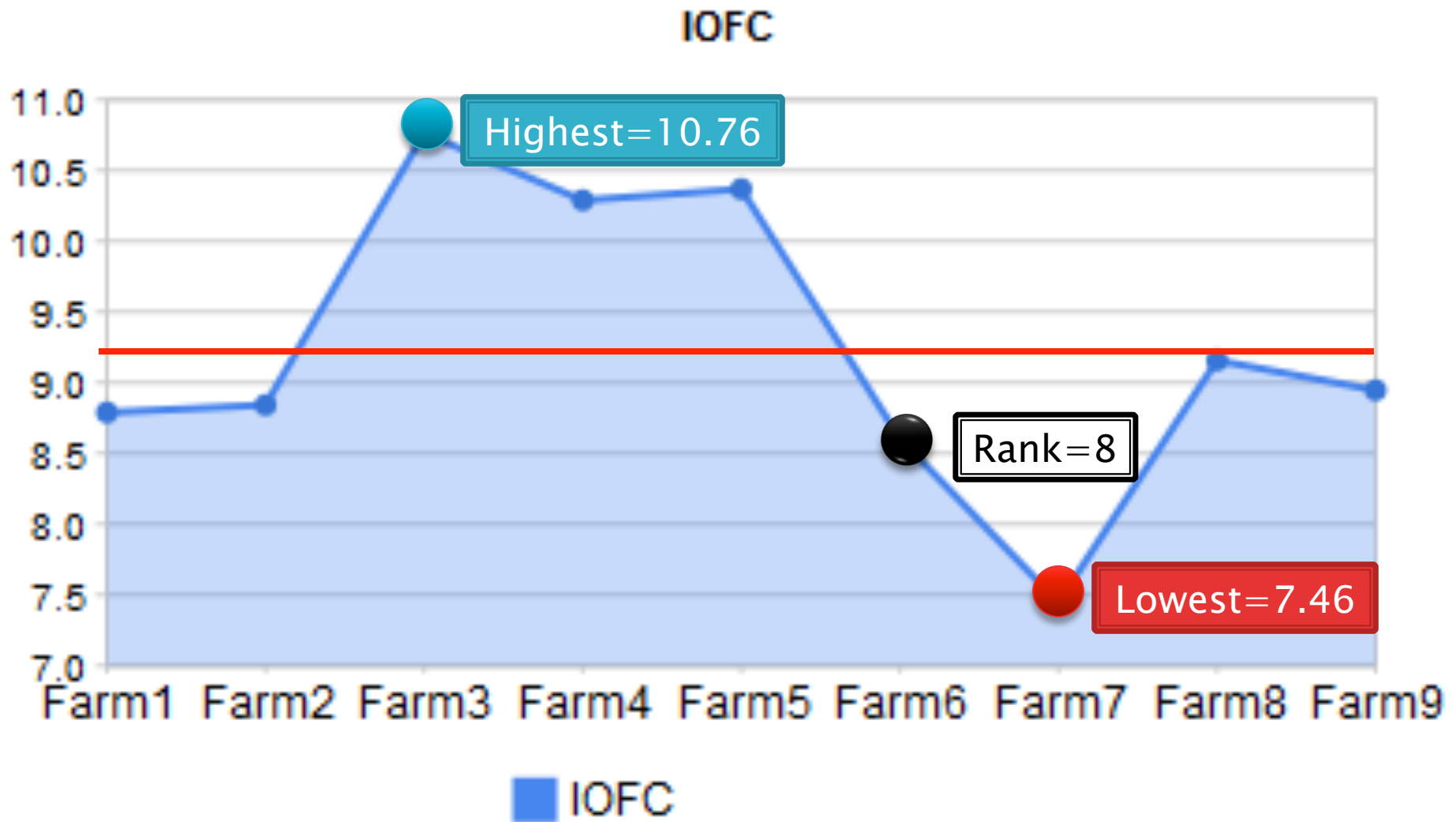
Milk Components



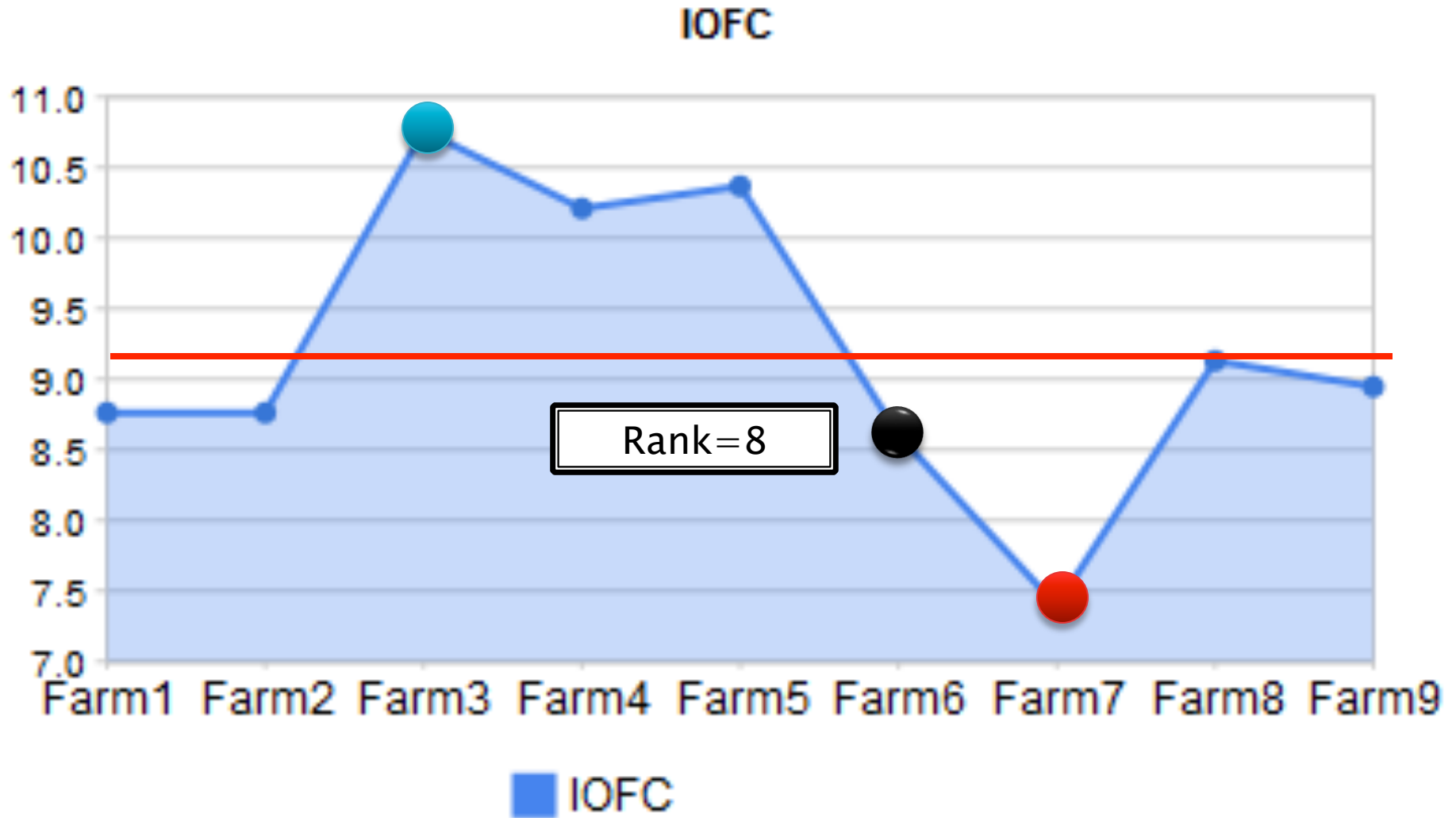
Milk Revenue (\$/cow/d)



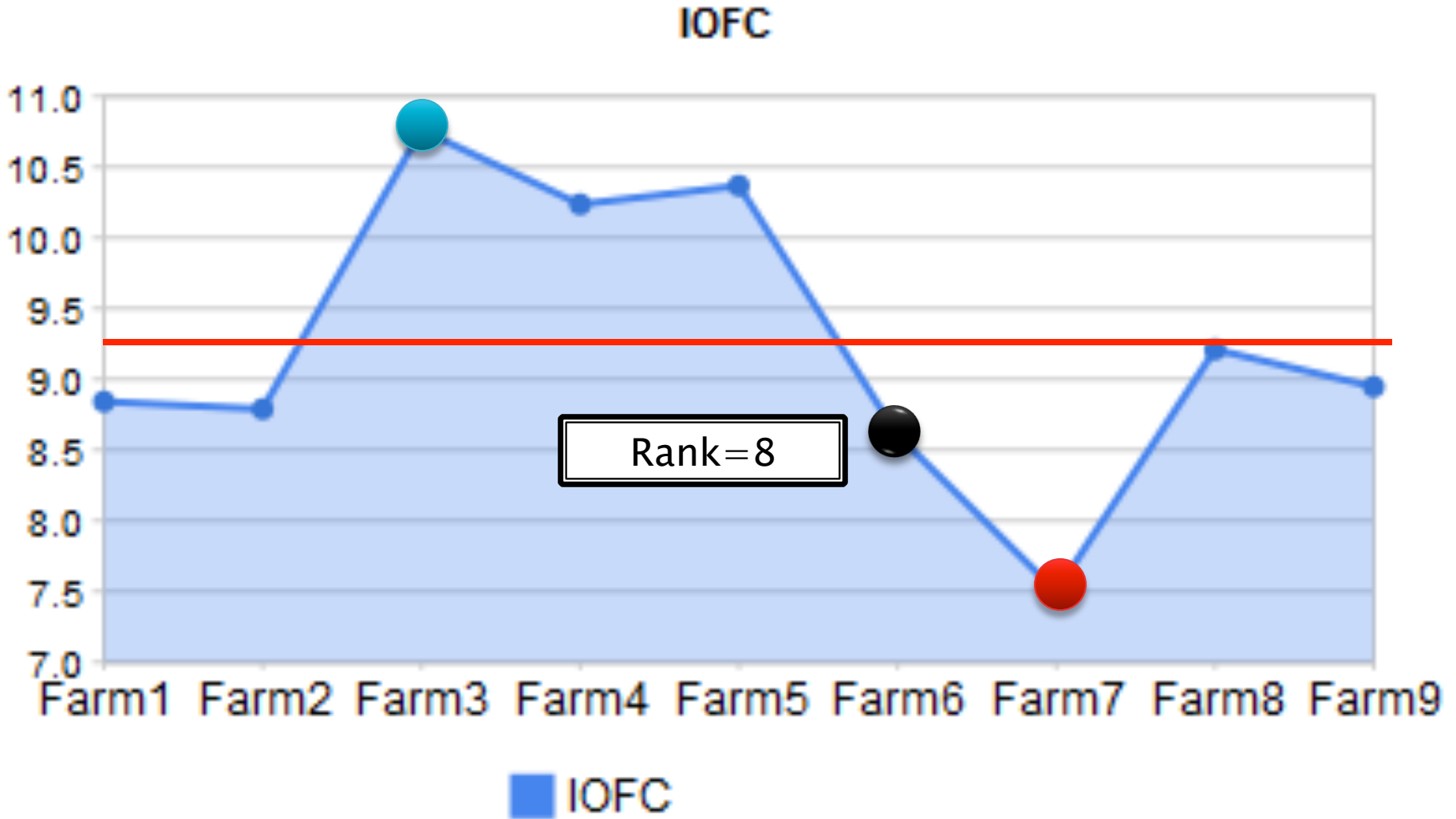
IOFC-Farm Reported Prices



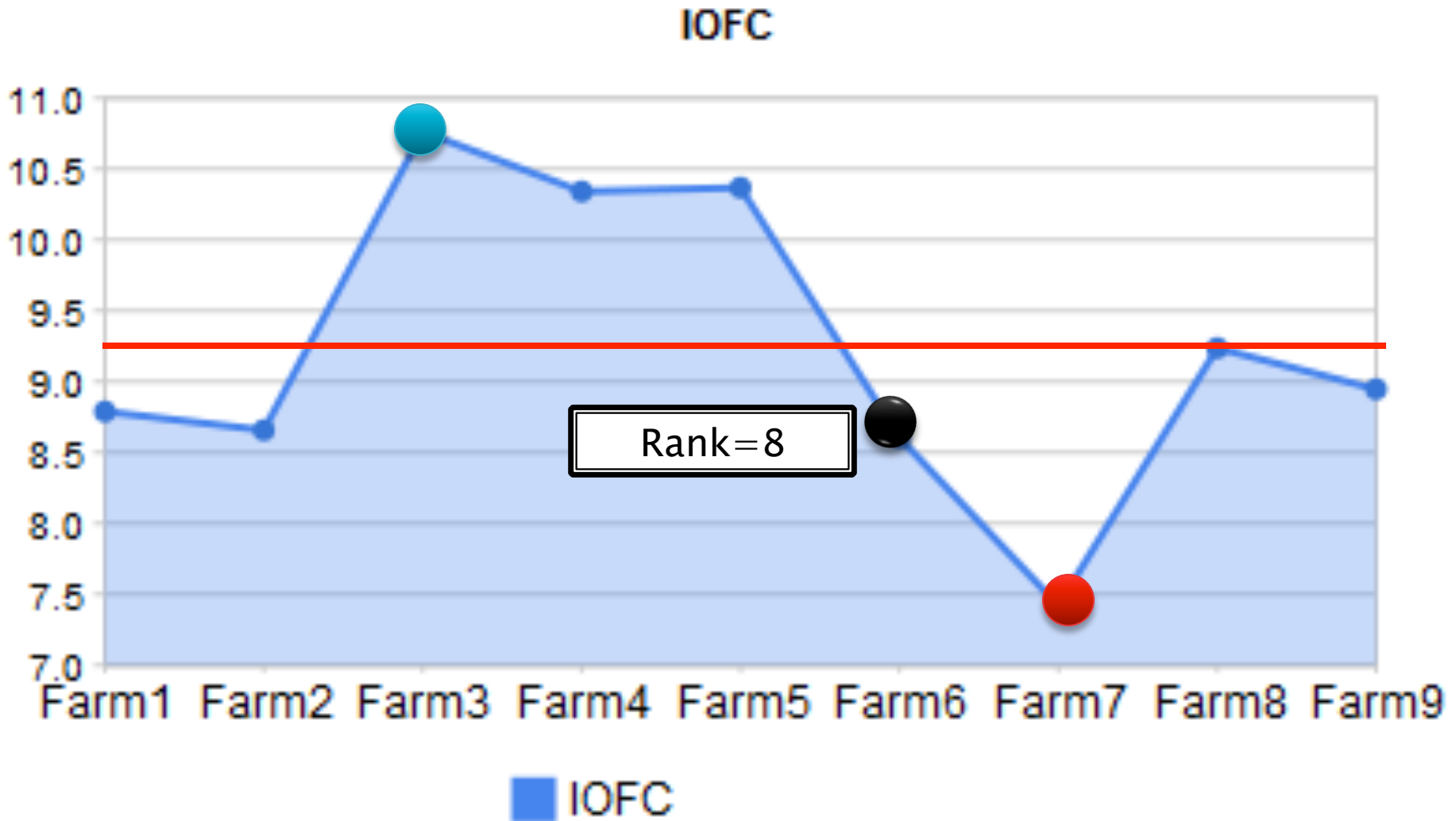
Corn Silage=36%, \$103.14/t DM



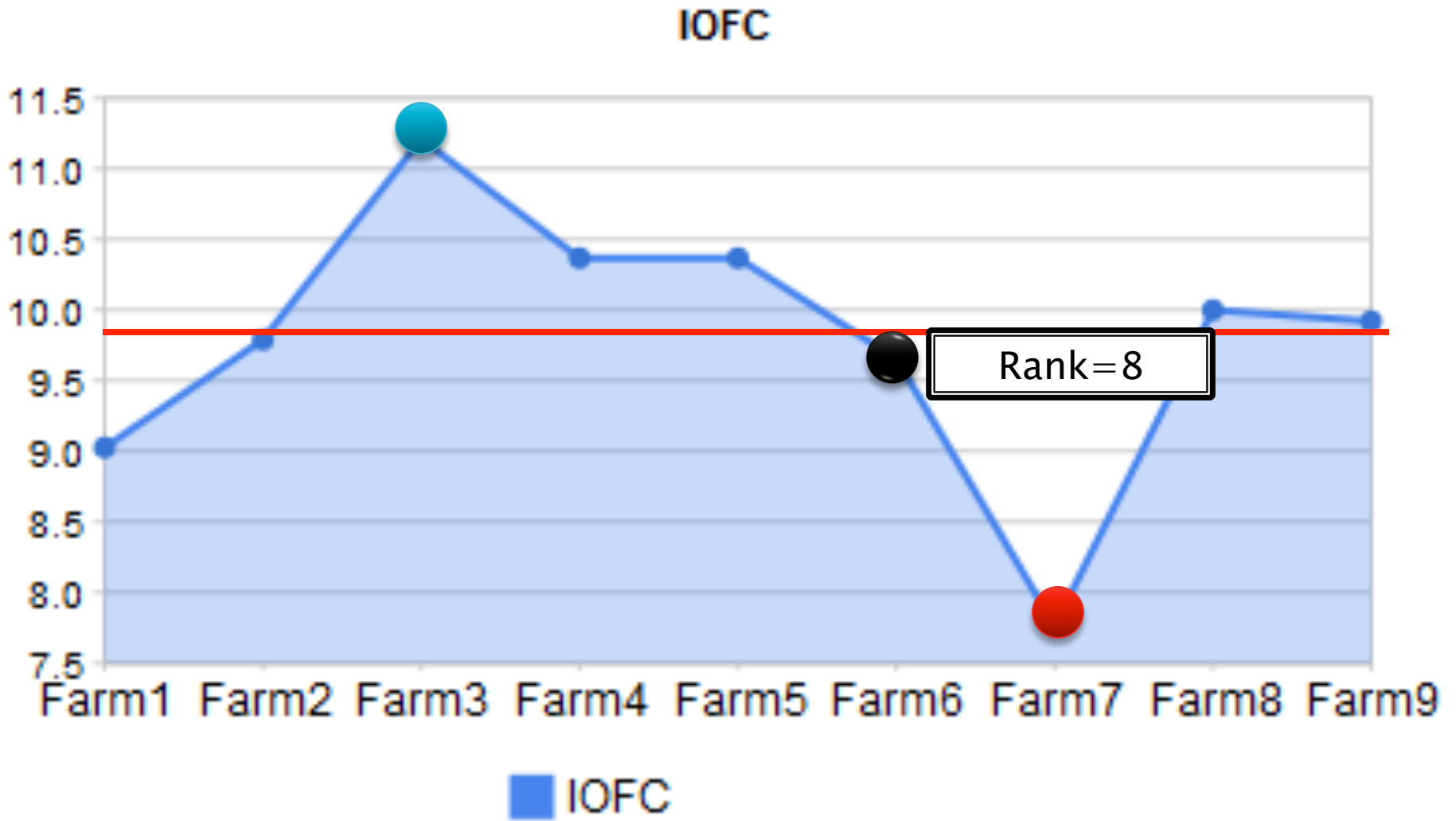
Hay Forage=46%, \$135.36/t DM



Corn Grain=76%, \$169.41 /t DM

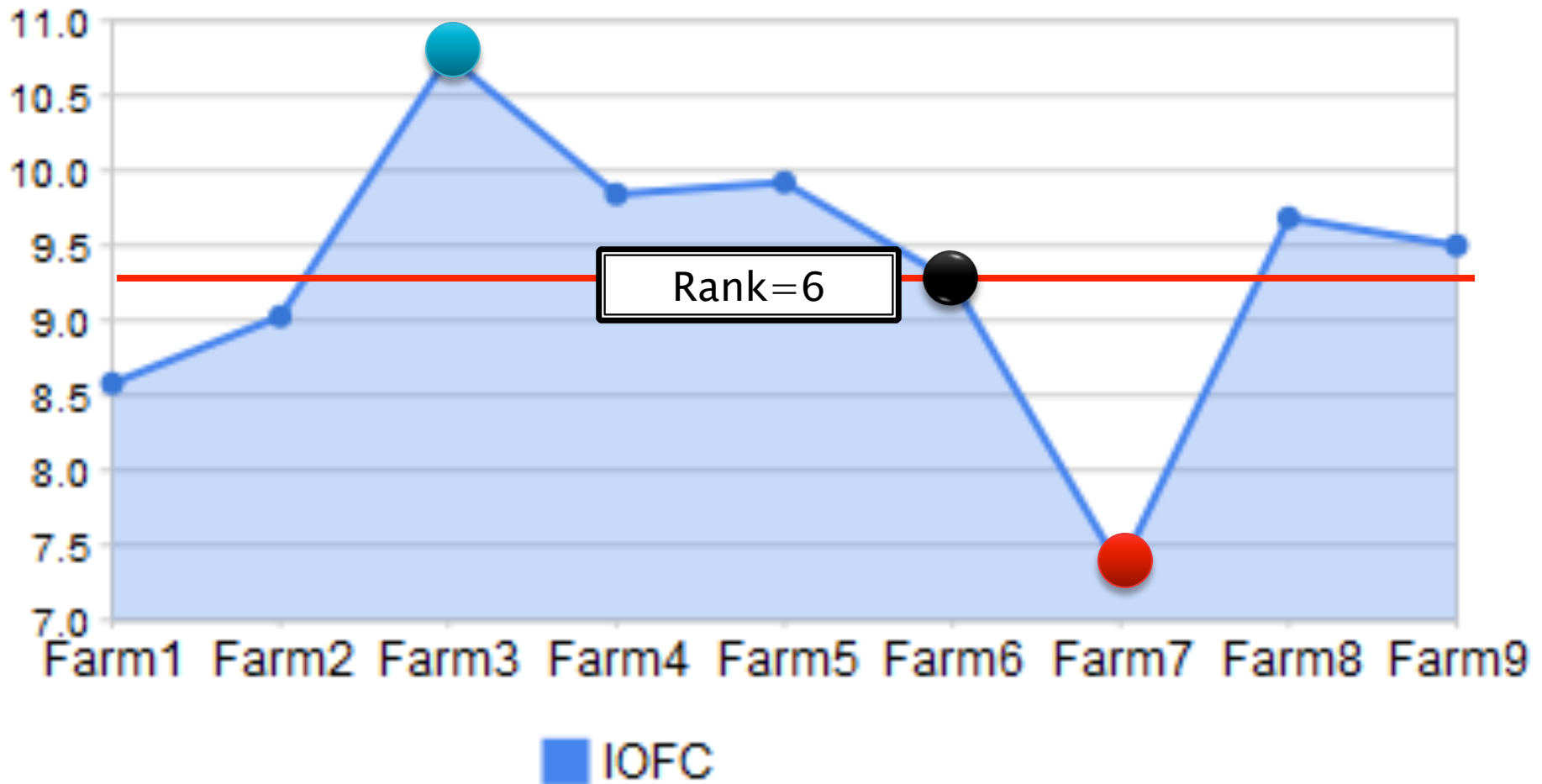


Milk Price = \$16.5 / cwt milk



Best Prices (milk, corn silage, hay forage, corn grain)

IOFC



Farm6 Improvement Plan

- Look for better milk price
 - Negotiate a better price
 - Good milk components relatively and lowest price received
- Improve feed efficiency
 - Look ways to enhance production at the DMI level
 - Maintain milk production reducing DMI
 - Check feed quality
- Reduce feed costs
 - Homegrown and Purchased
 - Forages and Concentrates



Comparison Among Farm Groups

		9 Farms Fond du Lac (April)			21 Farms Pennsylvania ¹ (May)			10 Farms Kewaunee (September)		
		Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Milk	lb/cow/d	75.02	95.23	87.20	55.50	81.02	71.58	67.90	86.80	79.00
Milk Price	\$/cwt	15.24	16.50	15.80	15.70	17.82	16.53	15.88	15.88	15.88²
Milk Revenue	\$/cow/d	12.25	15.80	13.80	9.28	13.6	11.84	10.78	13.78	12.55
Dry matter intake	lb/cow/d	54.20	49.50	52.34	---	---	---	44.38	55.30	51.46
Feed cost	\$/cow/d	3.95	5.40	4.59	3.48	6.16	4.91	4.61	5.49	4.94
IOFC	\$/cow/d	7.46	10.76	9.25	4.30	9.56	6.93	6.98	11.24	8.37
IOFC	\$/cwt	9.95	11.33	10.61	7.75	11.80	9.68	9.38	10.36	9.68

¹ Ishler et al., (Hoard's Oct 25, 2010 pg. 719)

² Standardized price



IOFC 65-Ib ration¹



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Costs of Major Inputs > Income Over Feed Cost(All Milk Price*.65-DFC65)[IOFC]

Search

Units : \$/cow/day

Source :

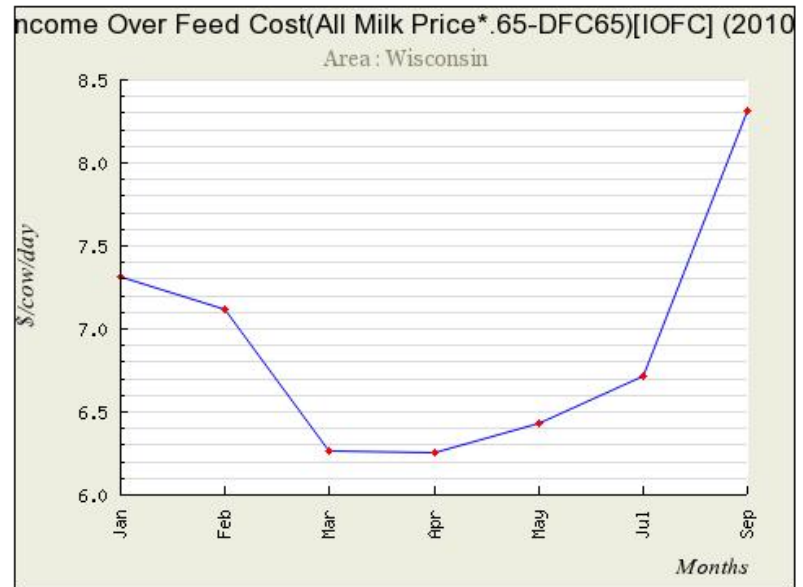
[Show by Year](#) | [Year on Year](#) | [Show / Download Full Data](#) | [Plot this data](#) | [Save graph](#)

Change Area

[Learn how to embed data in Excel](#) ([Download Web Query File](#))

2010

Month	Costs
Jan	7.316
Feb	7.120
Mar	6.263
Apr	6.255
May	6.427
Jul	6.718
Sep	8.317




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¹Bailey and Ishler, 2007

DairyMGT.info



Dairy Management UW-Extension
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Dairy Management

Dairy Management site is designed to support dairy farming decision-making focusing on model-based scientific research. The ultimate goal is to provide user-friendly computerized decision support systems to help dairy farms improve their economic performance. Dr. Victor Cabrera focuses on model-based decision support in dairy cattle and in dairy farm production systems. Dr. Cabrera's primary interest is to improve cost-efficiency and profitability along with environmental stewardship in dairy farms by using simulation techniques, artificial intelligence, and expert systems. Dr. Cabrera's research and Extension programs involve interdisciplinary and participatory approaches towards the creation of user-friendly decision support systems. As an Extension Specialist, Dr. Cabrera works in close relationships with county-based Extension faculty, dairy producers, consultants, and related industry.

Latest Projects

- Dairy Cow Fertility
- Strategies of Pasture Supplementation
- Success for Small Dairy Farmers
- LGM-Dairy
- Dairy Economic Decision Support System


UW

- University of Wisconsin - Madison
- UW - Cooperative Extension
- UW - Dairy Science
- Understanding Dairy Markets

Dairy News

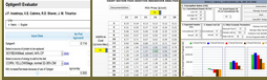
- UW-Extension Dairy News

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TOOLS



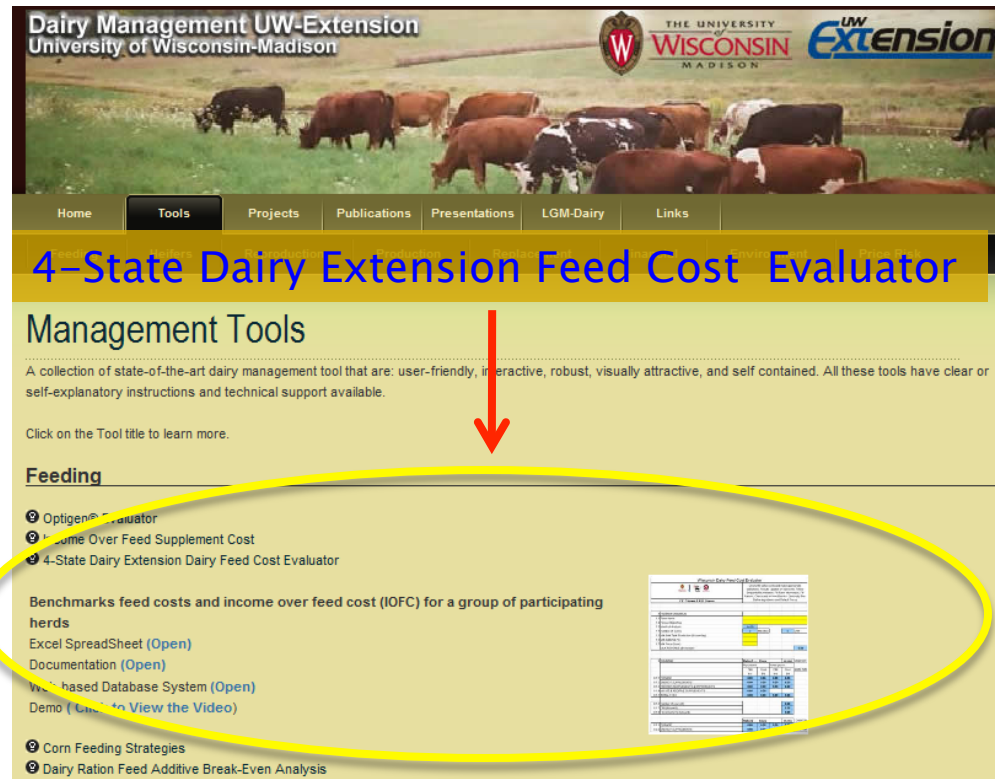
Dairy Management Tools

Click to find out more about tools provided by DairyMGT

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4-State Dairy Extension Feed Cost Evaluator

Management Tools

A collection of state-of-the-art dairy management tool that are: user-friendly, interactive, robust, visually attractive, and self contained. All these tools have clear or self-explanatory instructions and technical support available.


Click on the Tool title to learn more.

Feeding

- Optigen® Evaluator
- Income Over Feed Supplement Cost
- 4-State Dairy Extension Dairy Feed Cost Evaluator

Benchmarks feed costs and income over feed cost (IOFC) for a group of participating herds

Excel Spreadsheet ([Open](#))
Documentation ([Open](#))
Web-based Database System ([Open](#))
Demo ([Click to View the Video](#))



- Corn Feeding Strategies
- Dairy Ration Feed Additive Break-Even Analysis



Dairy Feed Cost Evaluator

- Available to anyone interested in evaluate Feed Costs and IOFC:
 - Track farm trends over time
 - Compare farms in a region
 - Compare across regions
- ***Contribute to database → Use available data***



Thanks

