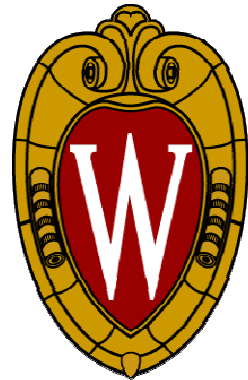


Optimal Corn Grain Feeding



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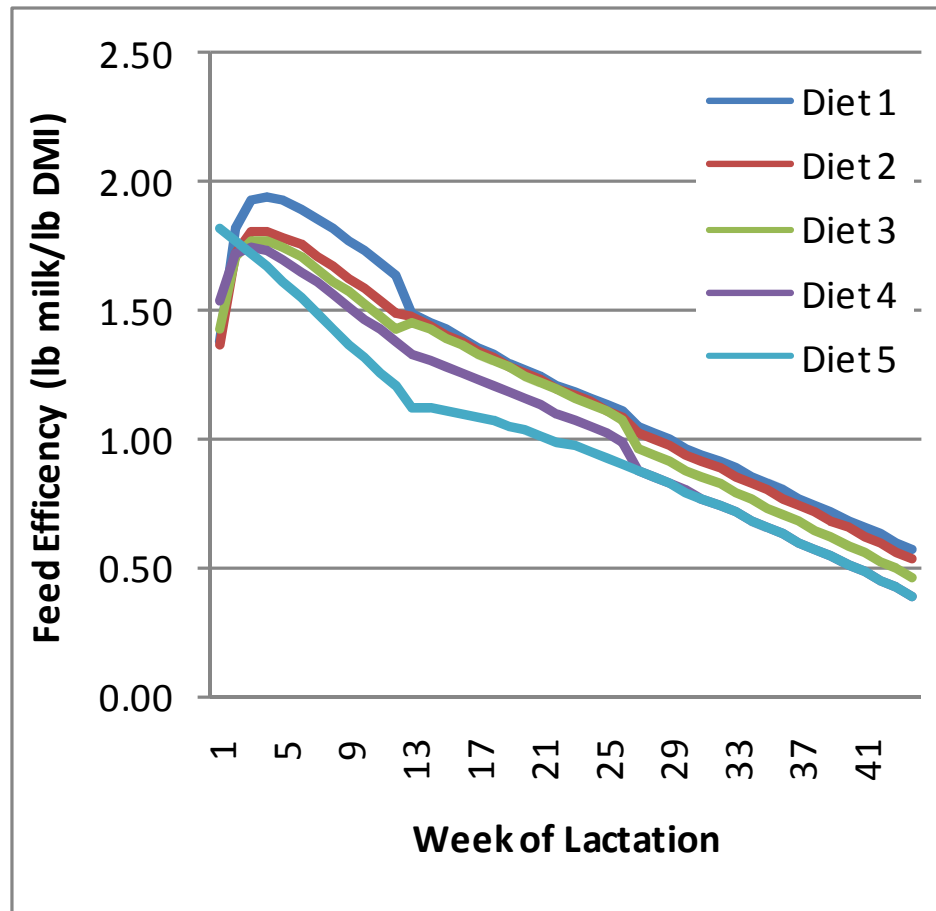
Victor E. Cabrera
Assistant Professor
Extension Dairy Specialist
Dairy Science Department

UW
Extension

What's the Deal with Ag Prices -Managing the Opportunities-

Diminishing milk production to feed

➤ What is the feed efficiency?

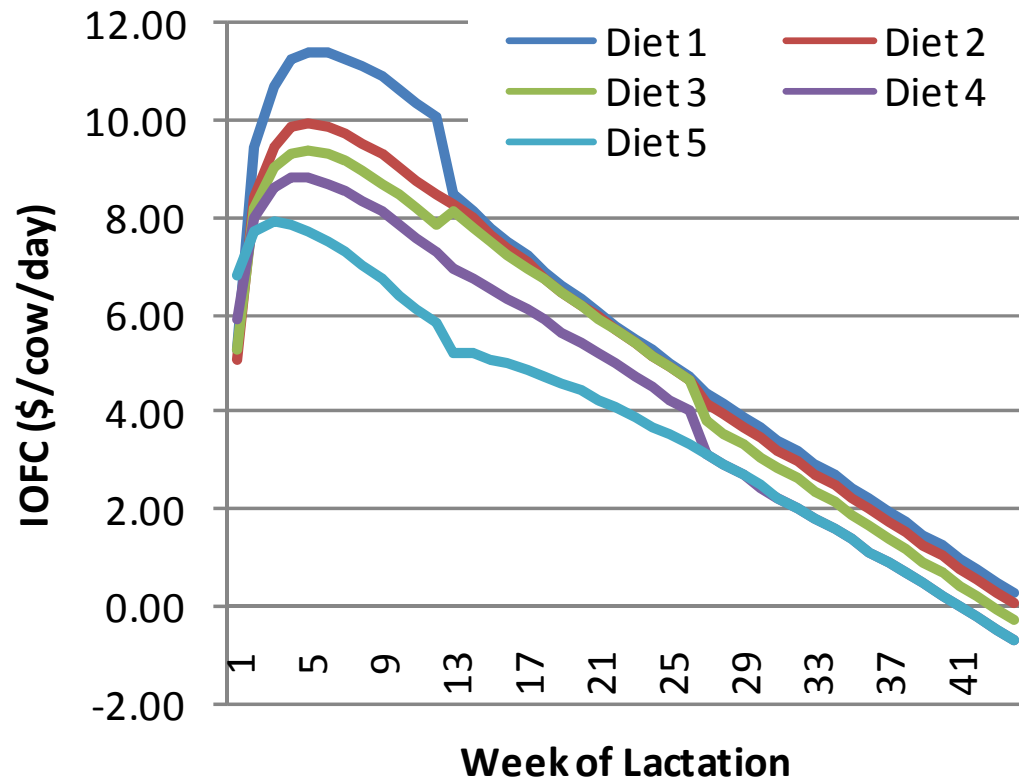


Diet	Alfalfa hay	Corn grain	Soybean meal
1	38-48-68%	42-40-25%	18-10-05%
2	48-58-78%	34-33-17%	16-7-3%
3	58-68-88%	27-25-9%	13-05-01%
4	68-88-98%	19-09-00%	11-01-00%
5	98-98-98%	00-00-00%	00-00-00%

Mean (SD) 1.12 (0.41)

Expected income over feed cost

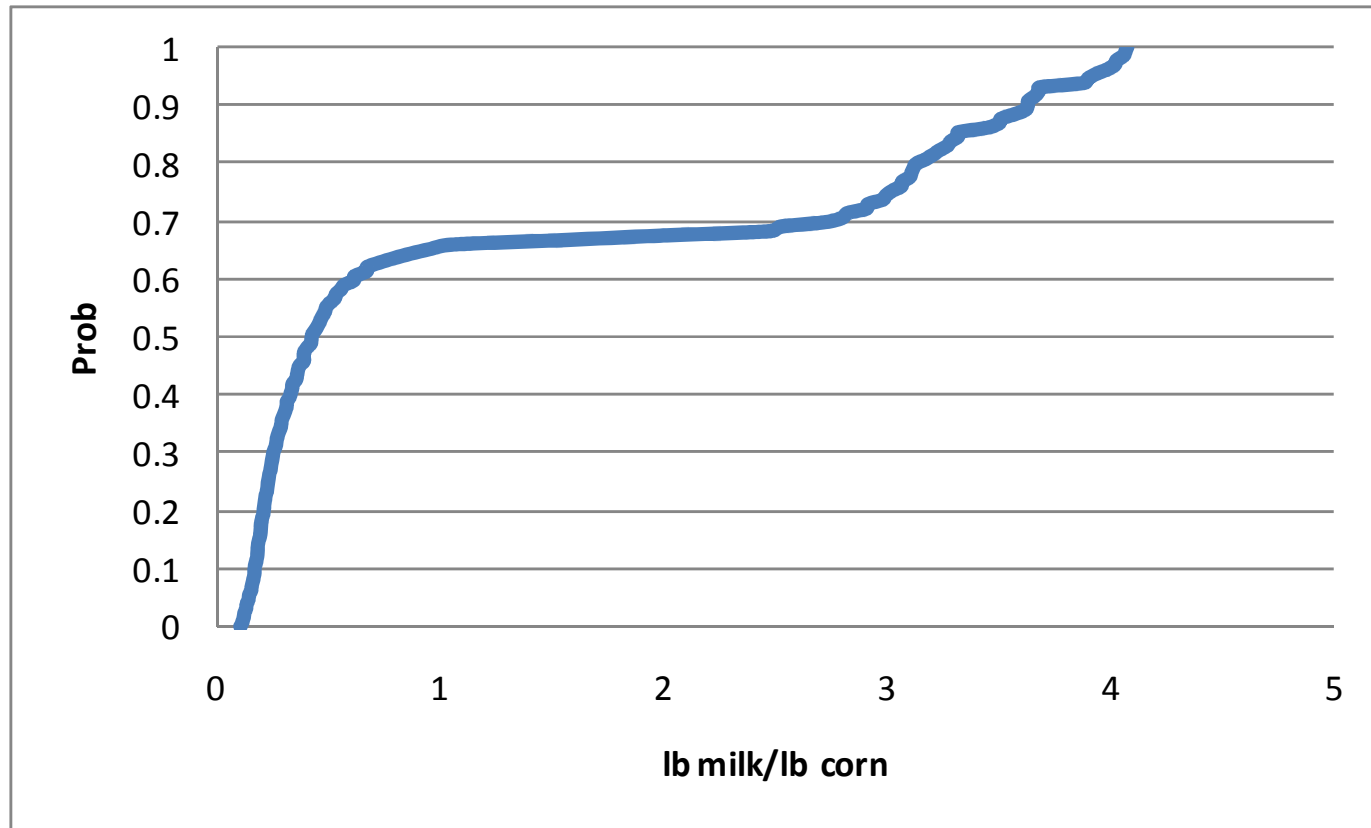
➤ What is income over feed cost (IOFC)?



	Price
Alfalfa hay	\$177/ton
Corn grain	\$6/bu
SBM	\$358/ton
Milk	\$18/cwt

Milk production due to corn grain

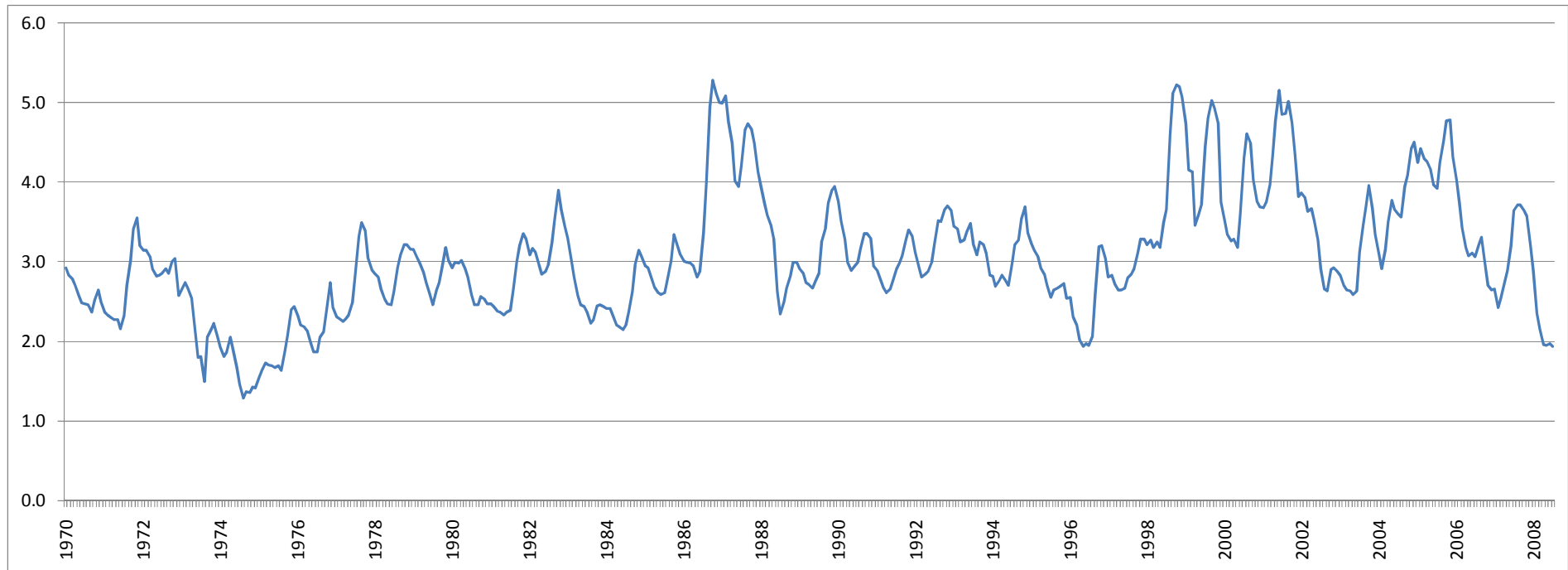
- How much milk is produced by 1 lb of corn?



Mean (SD) 1.33 (1.47)

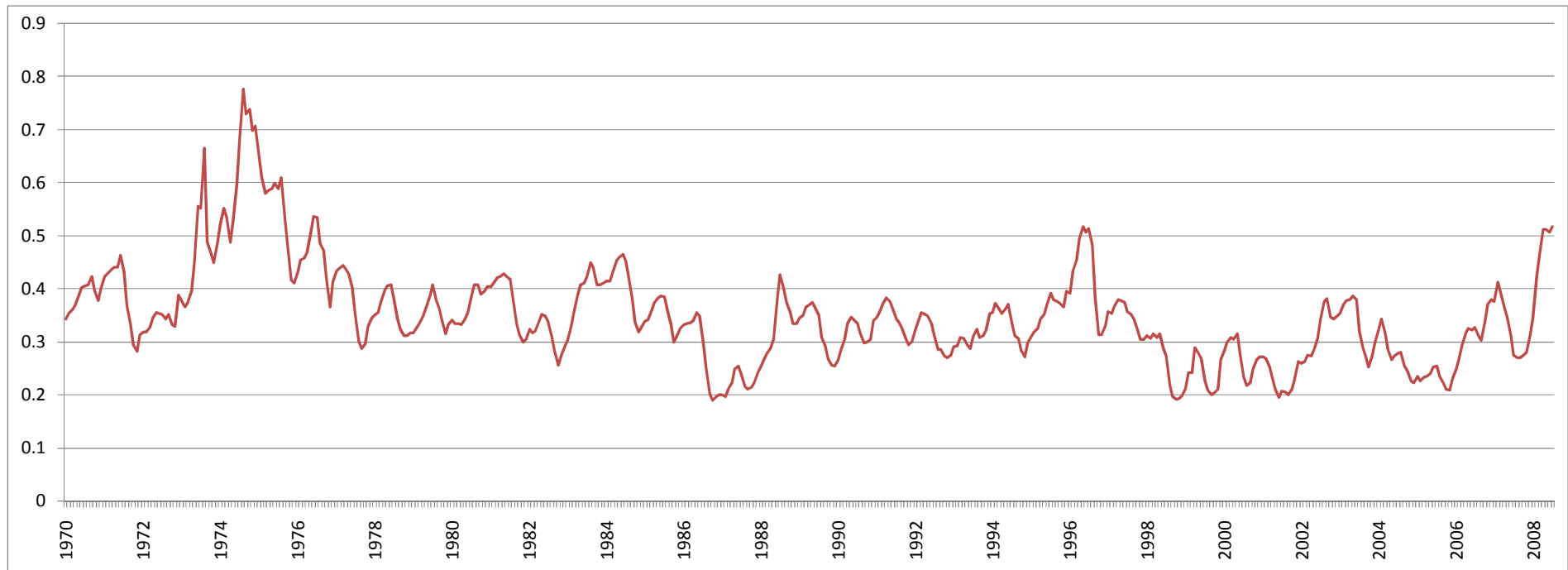
Milk to corn price ratio

➤ How much more is milk worth than corn ?



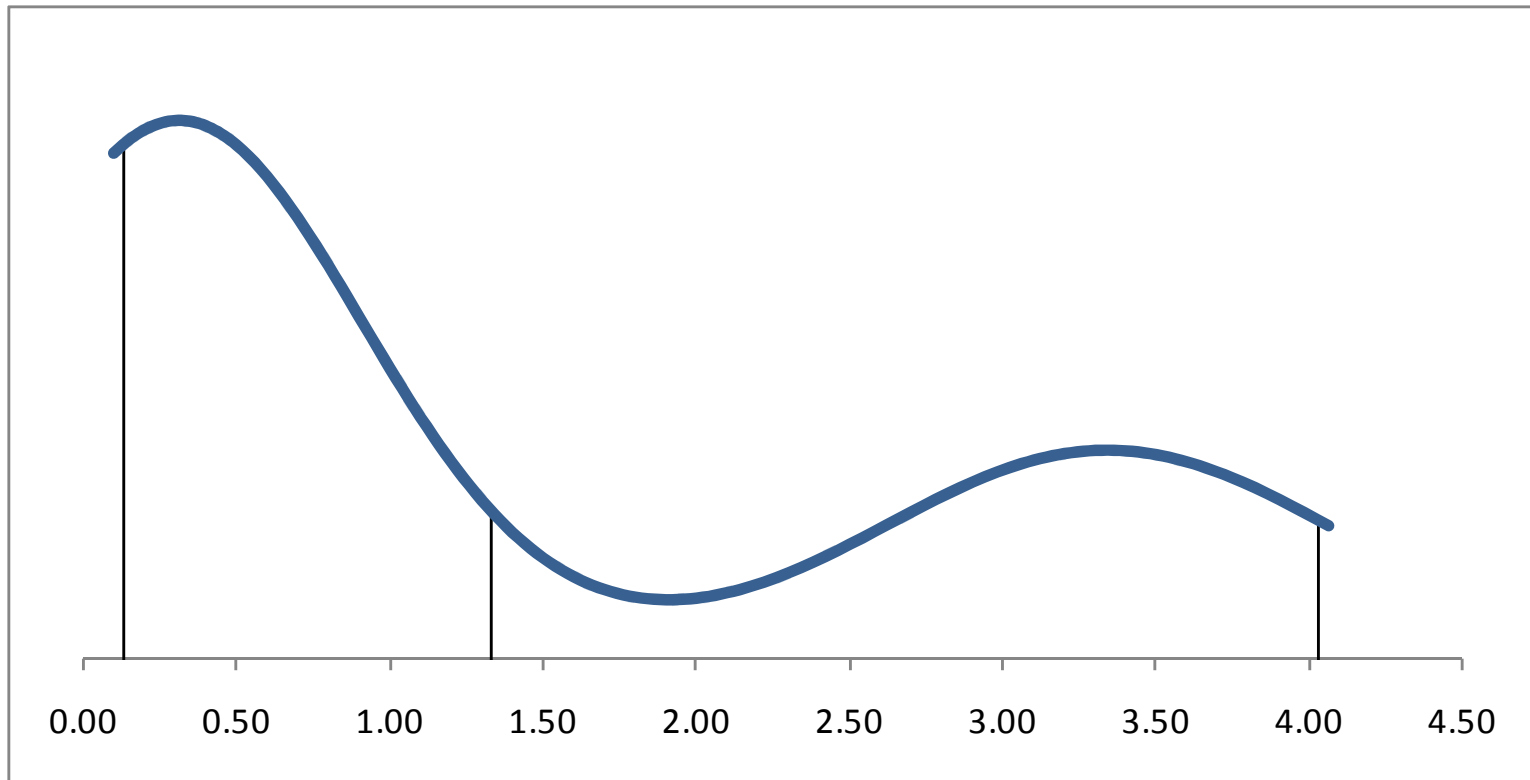
Milk to corn price ratio

➤ What milk to corn ratio is needed, at least?



Milk production due to corn grain

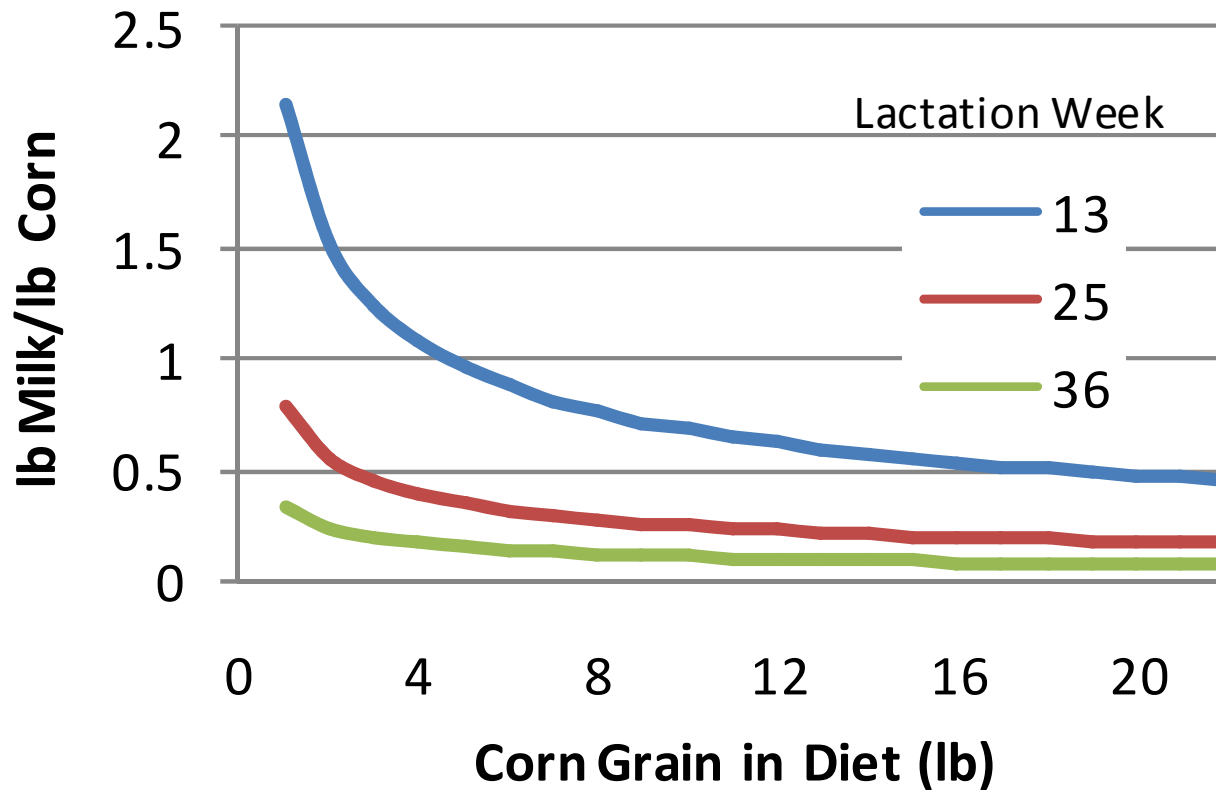
- How much milk is produced by 1 lb of corn?



Mean (SD) 1.33 (1.47)

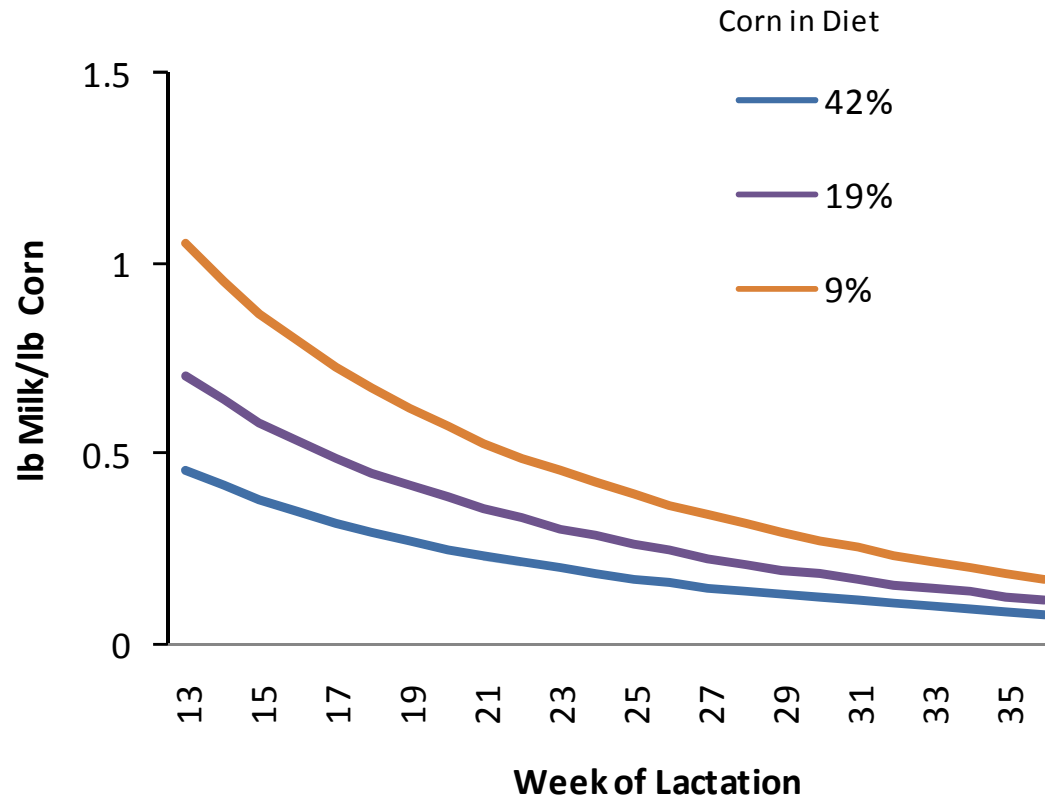
Diminishing milk production to corn grain

➤ How much milk is produced by 1 lb of corn?



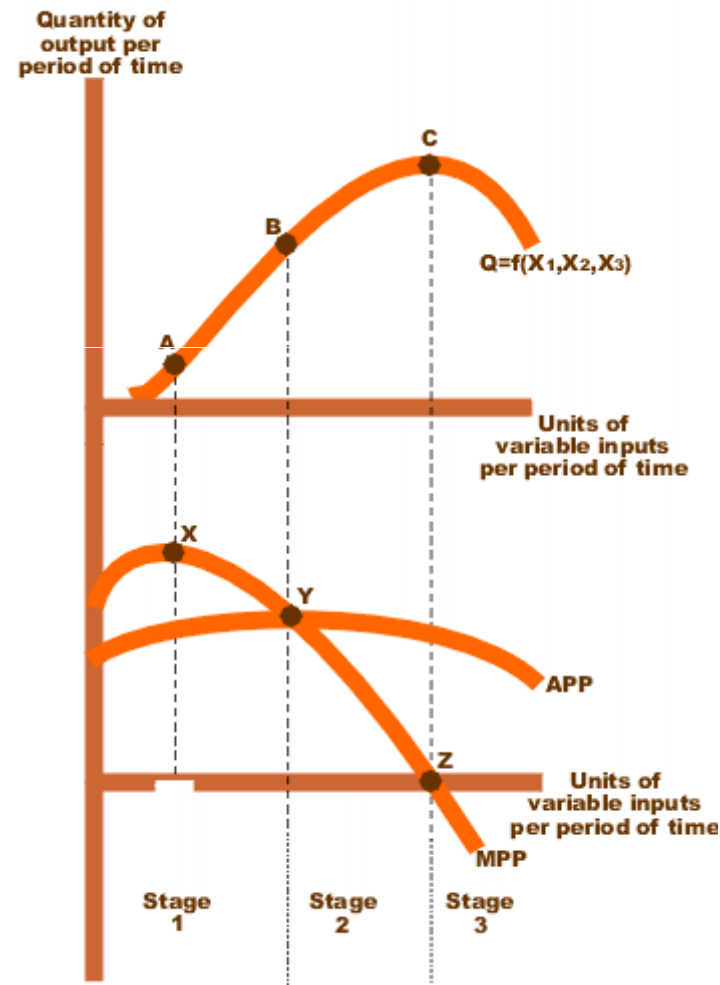
Diminishing milk production to corn grain

➤ How much milk is produced by 1 lb of corn?



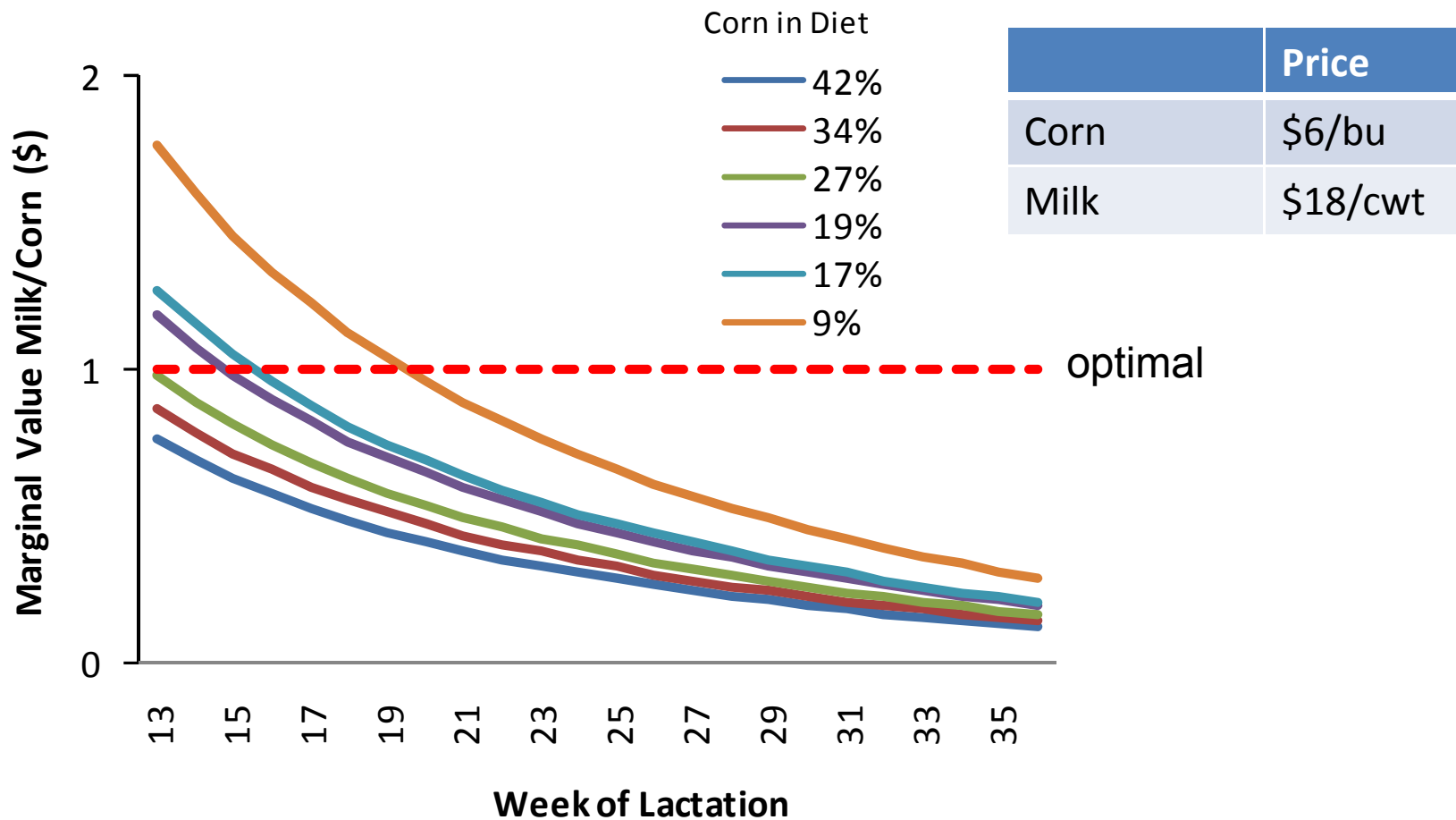
Optimal production level

➤ How much corn grain should be used then?



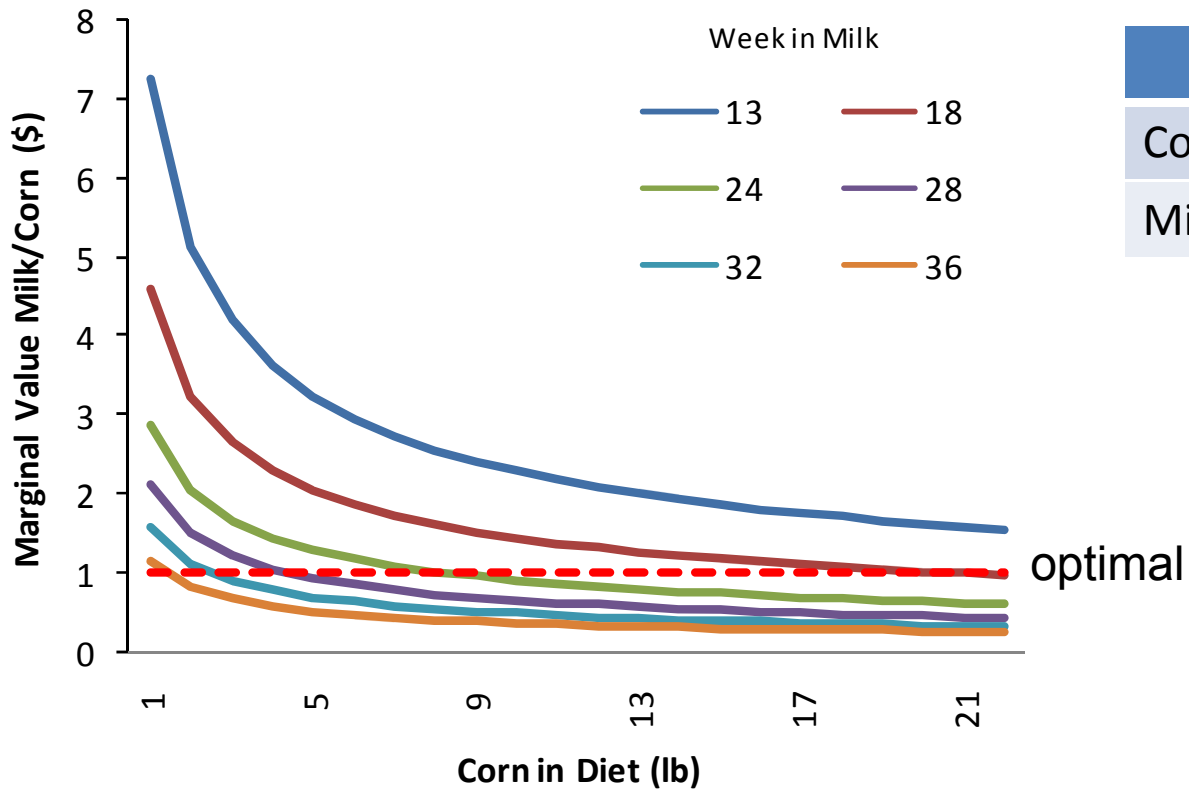
Marginal value of milk/corn

➤ How much money by any additional 1\$ of corn?



Marginal value of milk/corn

➤ How much money by any additional 1\$ of corn?



	Price
Corn	\$3/bu
Milk	\$18/cwt

Optimal IOFC in a lactating dairy herd

	Price
Alfalfa hay	\$177/ton
Corn grain	\$7/bu
SBM	\$350/ton
Milk	\$18/cwt
Milking cows	1000
Culling rate	30%

Diet	Lactation Weeks
5	1
1	2-20
3	21-26
1	27-44
Total IOFC	\$35,463/wk

Diet	Lactation Weeks
5	1-44
Total IOFC	\$24,642/wk

Optimal utilization of corn grain

- What to do when prices change, lactation progresses, and amount of corn in diet varies?

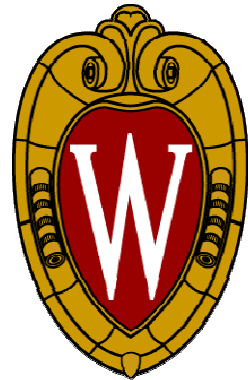
The screenshot displays the 'Dairy Management UW-Extension' website. The main content area is titled 'Decision Support Systems / Tools - Dairy Management'. It features two primary sections:

- Optimal Corn Grain Feeding in Wisconsin Dairy Diets:** This section describes a tool that calculates the income over feed cost (IOFC), the marginal value of milk to corn, and the optimal level of corn usage for defined milk price, feed costs, and stage of lactation. It includes a note about enabling macros and ActiveX content and provides download links for Excel spreadsheets (3 and 7 pages) and a SWF file (792 KB).
- Lactation Benchmark Curves for Wisconsin:** This section describes a user-friendly application that compares Wisconsin benchmark lactation curves (18,000 to 30,000 lb RHA and 1, 2, and 3 and higher parity) with user data. It also includes a note about enabling macros and ActiveX content and a download link for an Excel spreadsheet (2 pages, 377 KB).

The website also features a navigation menu on the left with links for Home, About, Contact, Search, Presentations, Publications, Management Tools, Related Links, and Staff Resources. A search bar is located at the top right. The footer of the page includes the University of Wisconsin-Madison logo and the Cooperative Extension logo.

<http://www.uwex.edu/ces/dairymgt/>

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