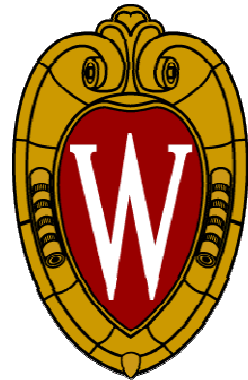


Optimal Corn Grain Feeding



THE UNIVERSITY
of
WISCONSIN
MADISON

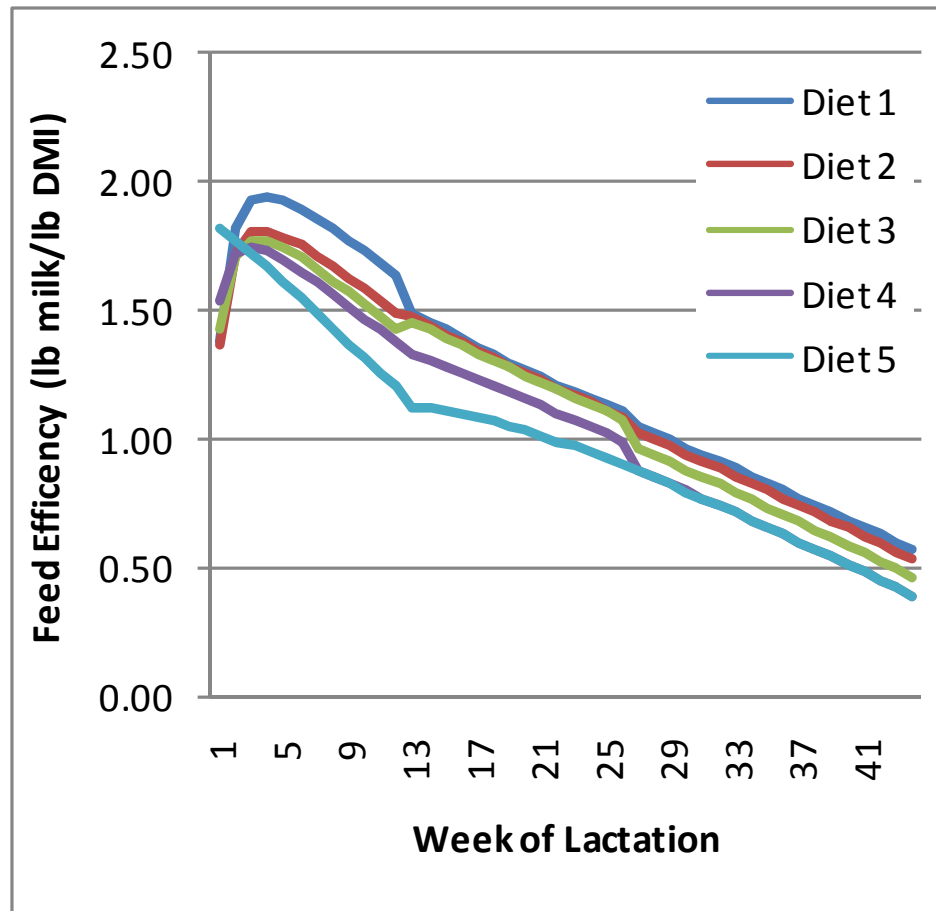
Victor E. Cabrera
Assistant Professor
Extension Dairy Specialist
Dairy Science Department

UW
Extension

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

Diminishing milk production to feed

➤ What is the feed efficiency?

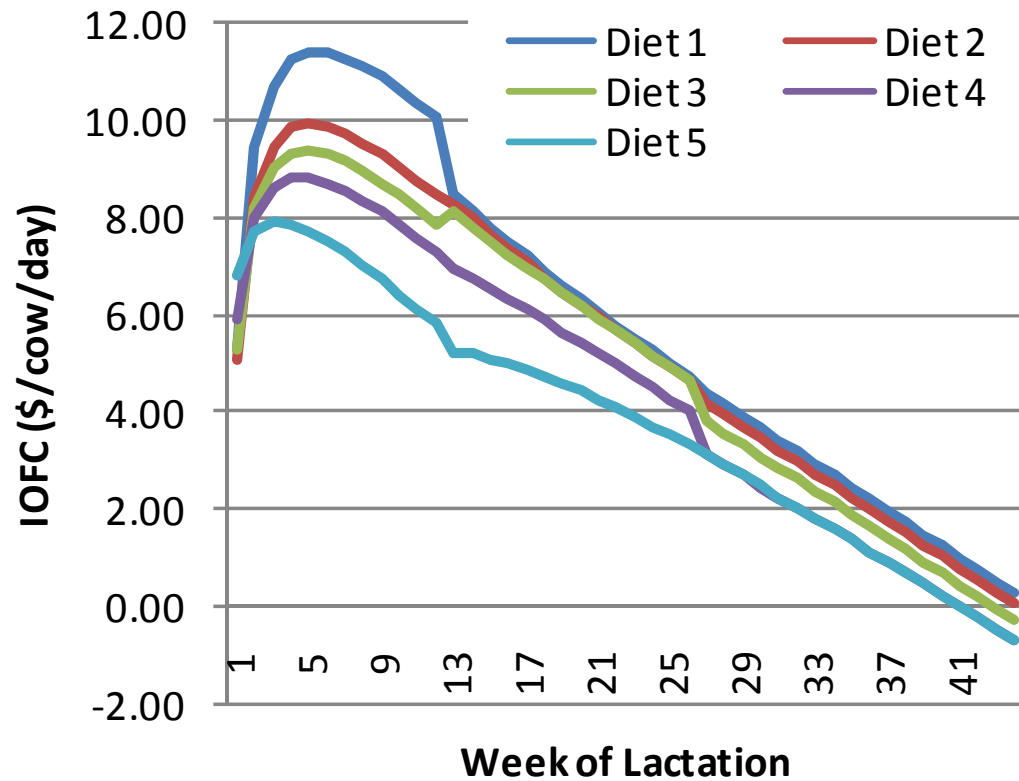


| Diet | Alfalfa hay | Corn grain | Soybean meal |
|------|-------------|------------|--------------|
| 1 | 38-48-68% | 42-40-25% | 18-10-05% |
| 2 | 48-58-78% | 34-33-17% | 16-7-3% |
| 3 | 58-68-88% | 27-25-9% | 13-05-01% |
| 4 | 68-88-98% | 19-09-00% | 11-01-00% |
| 5 | 98-98-98% | 00-00-00% | 00-00-00%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

Mean (SD) 1.12 (0.41)

Expected income over feed cost

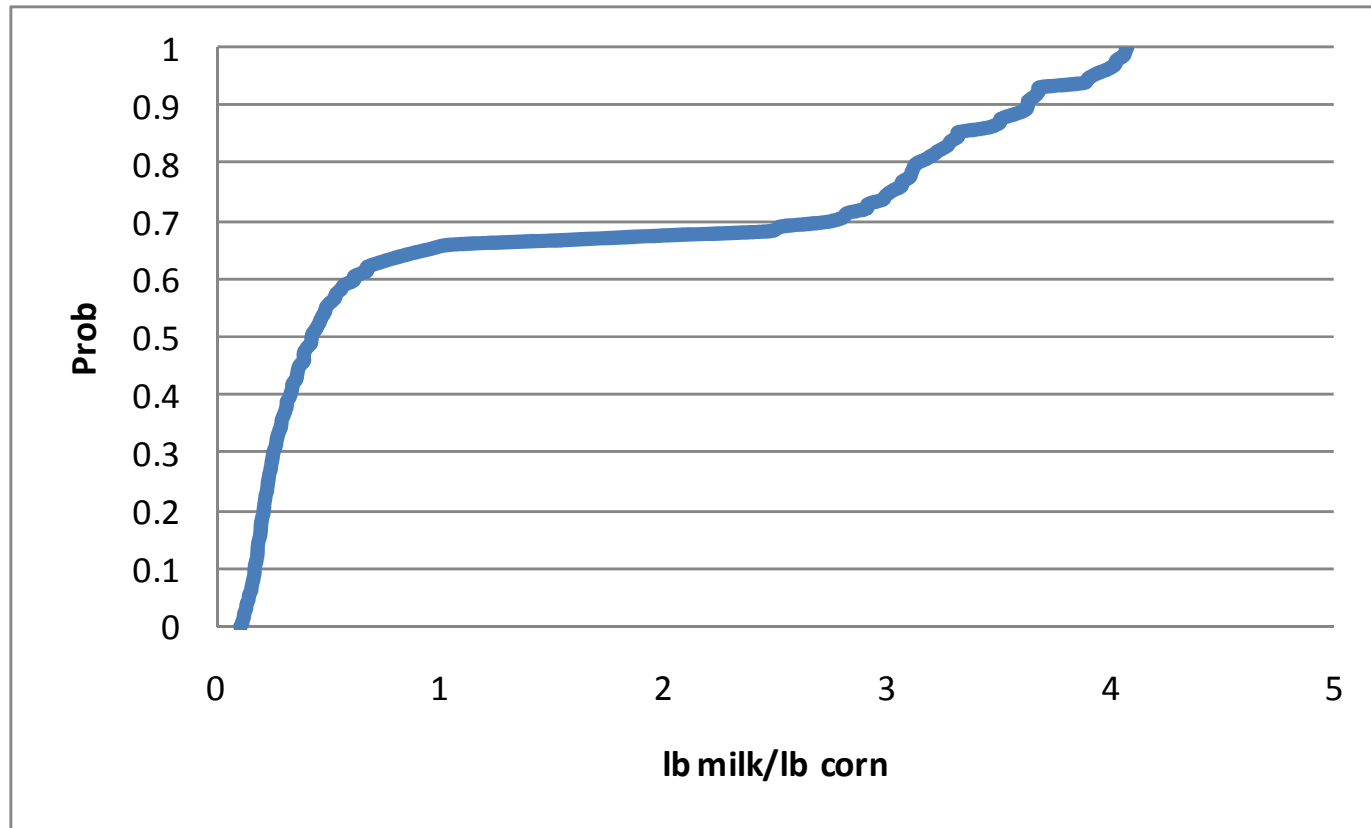
➤ What is income over feed cost (IOFC)?



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

Milk production due to corn grain

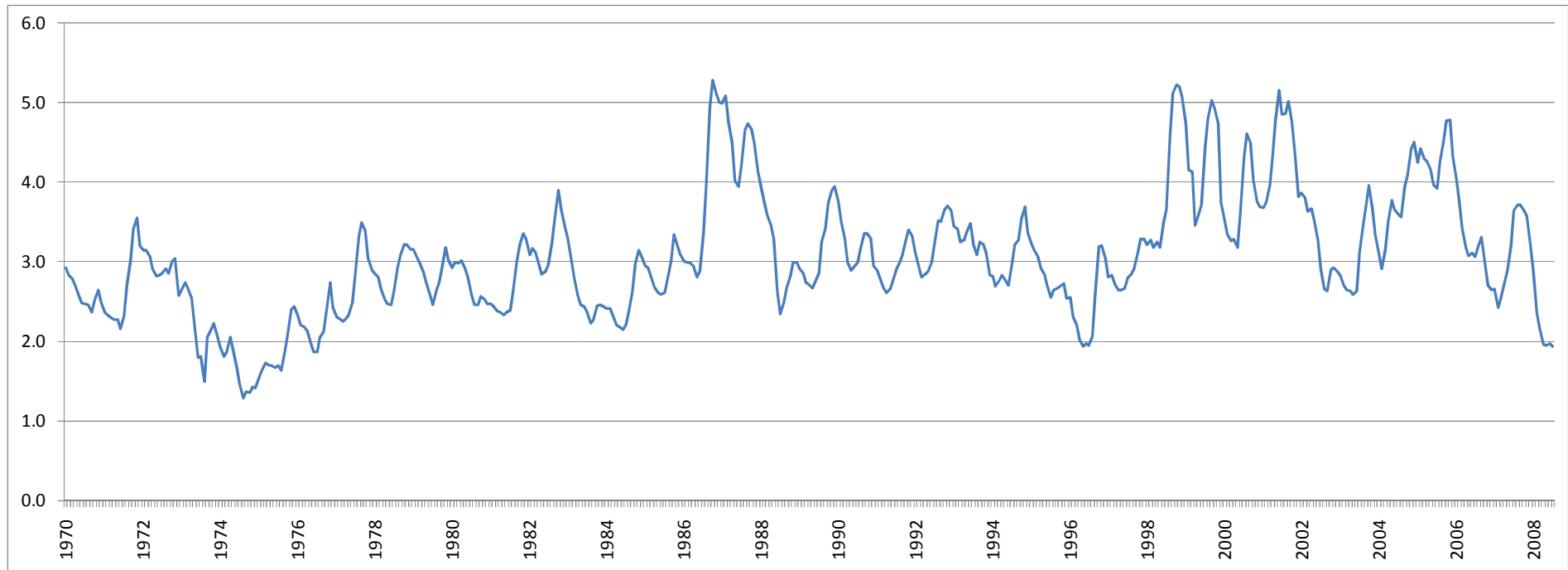
- How much milk is produced by 1 lb of corn?



Mean (SD) 1.33 (1.47)

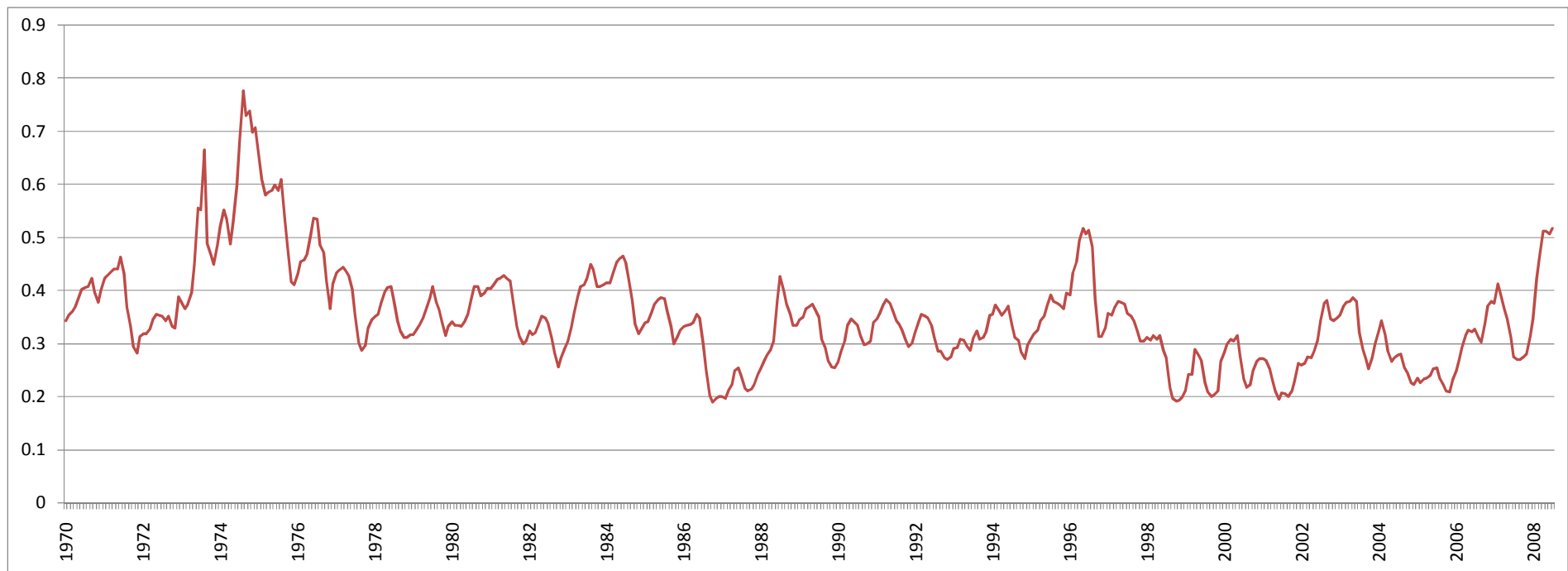
Milk to corn price ratio

➤ How much more is milk worth than corn ?



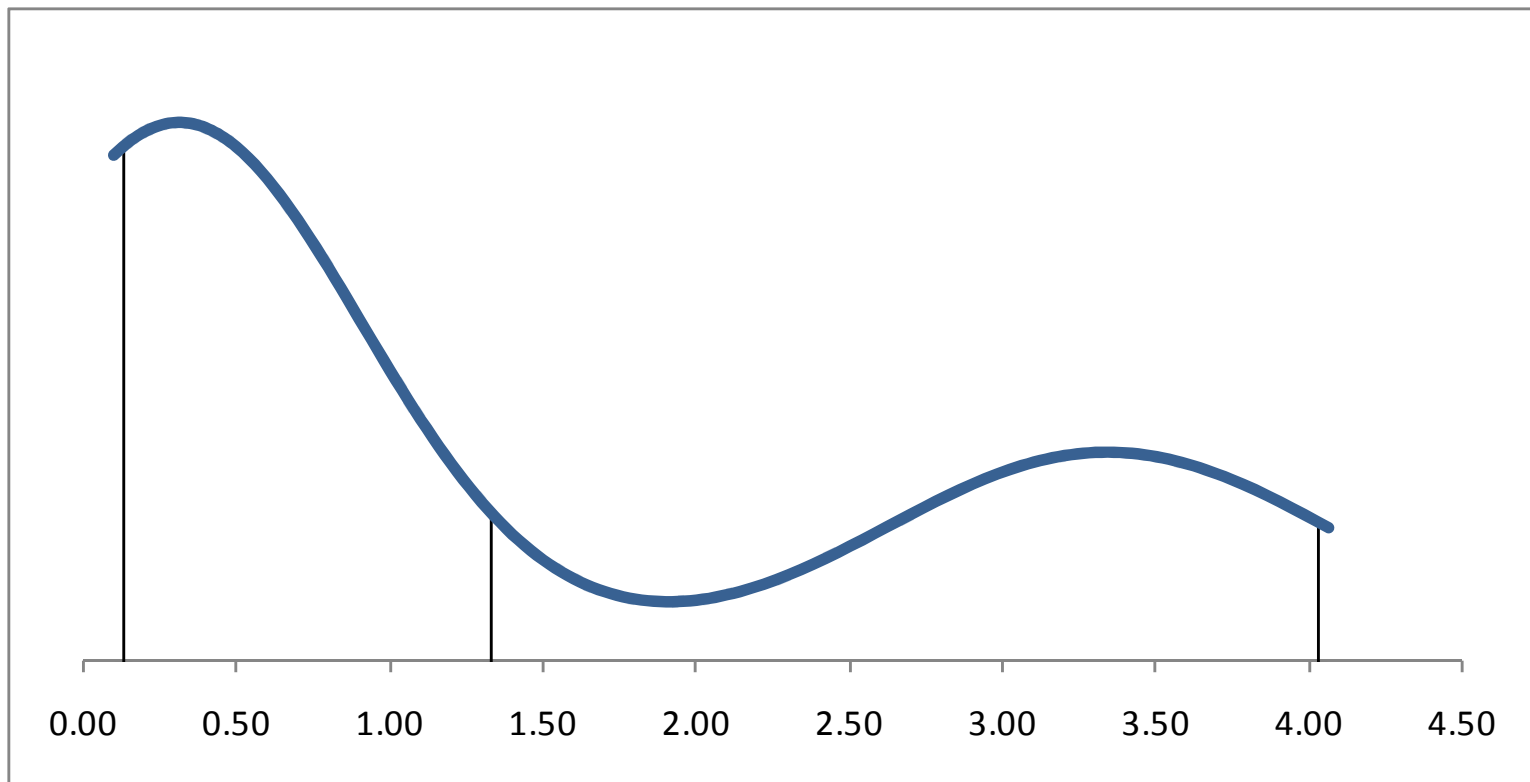
Milk to corn price ratio

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



Milk production due to corn grain

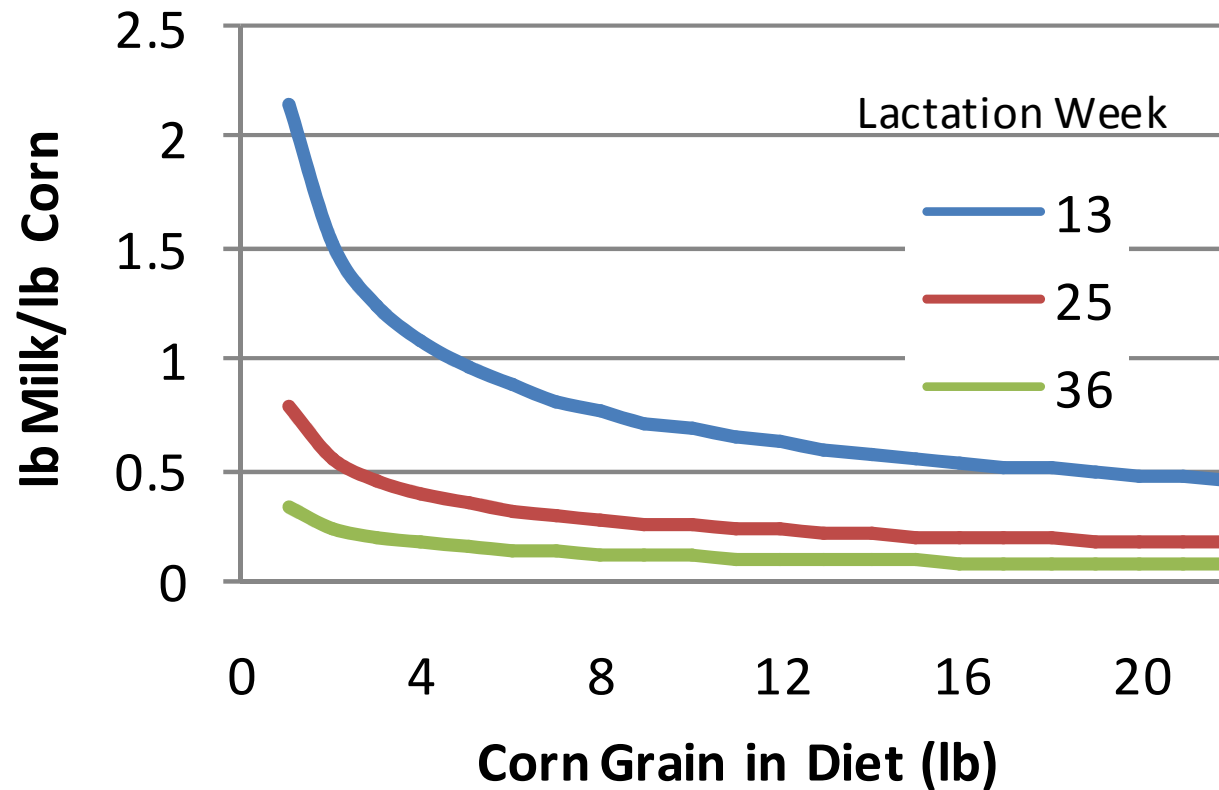
- How much milk is produced by 1 lb of corn?



Mean (SD) 1.33 (1.47)

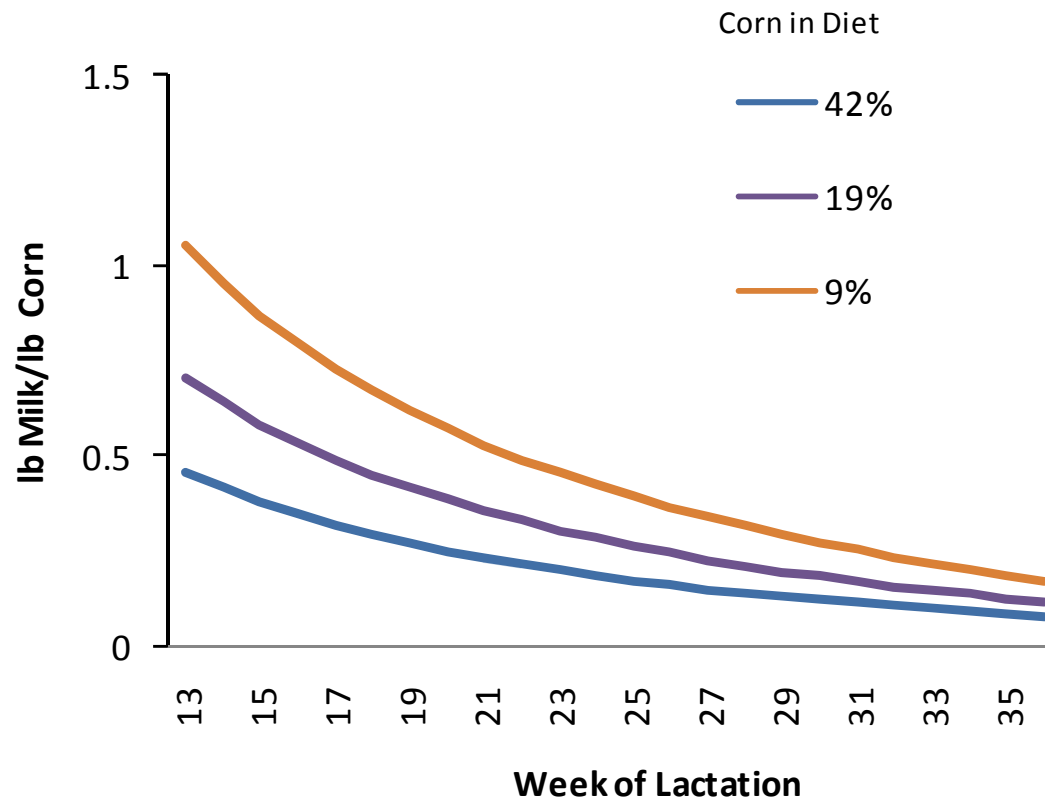
Diminishing milk production to corn grain

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



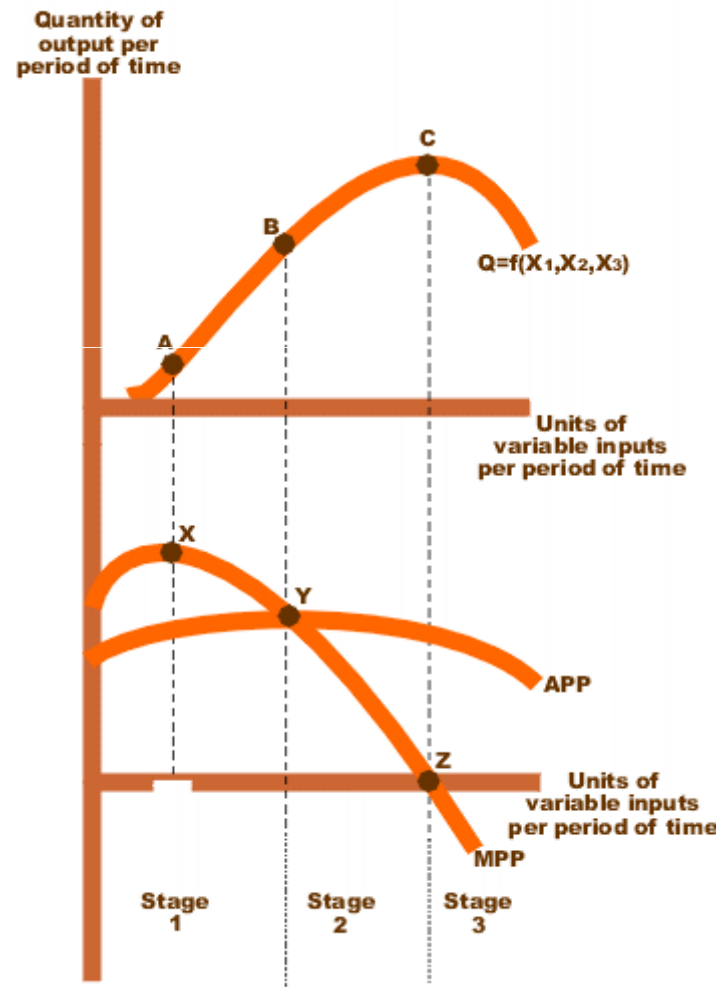
Diminishing milk production to corn grain

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



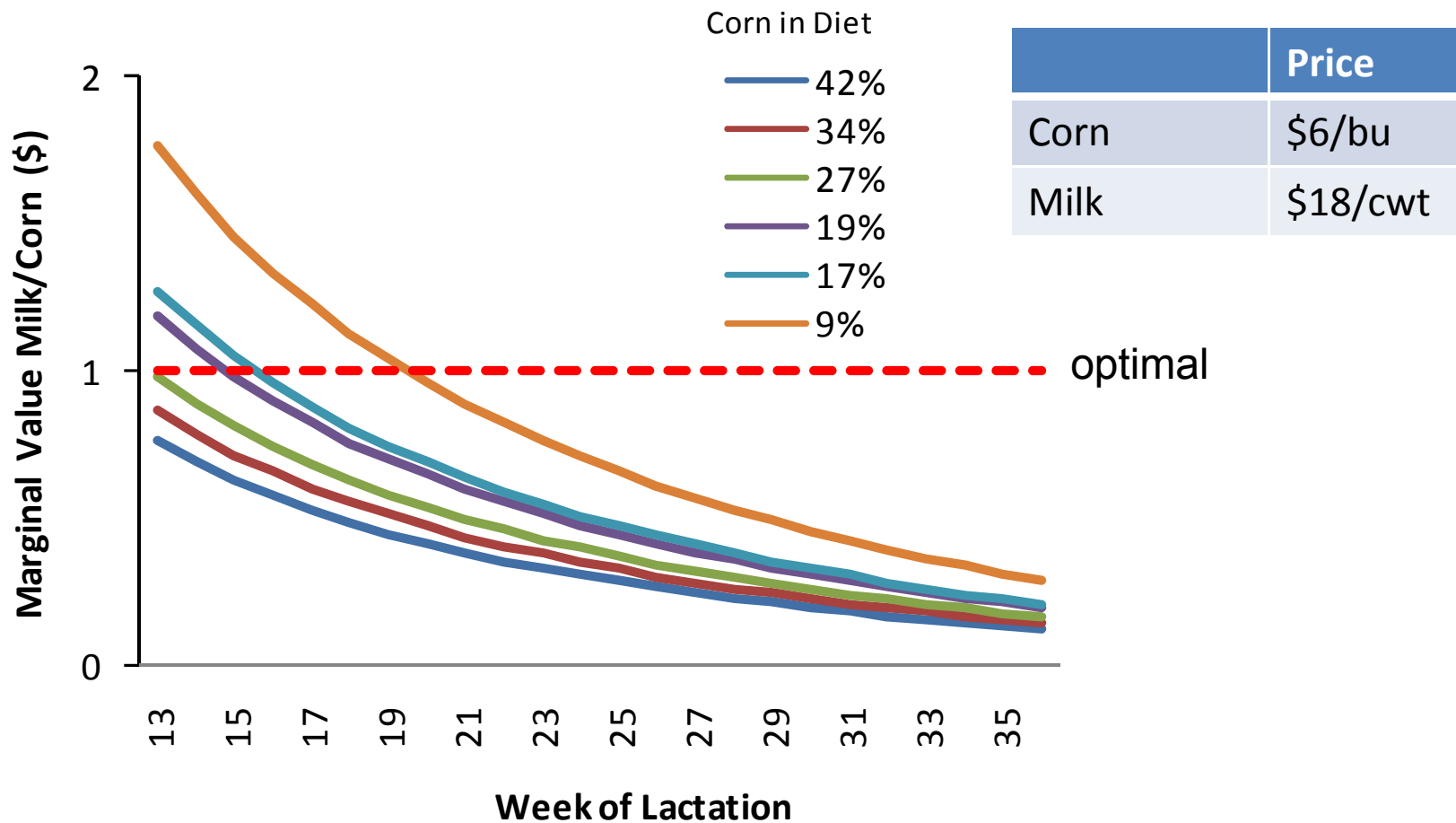
Optimal production level

➤ How much corn grain should be used then?



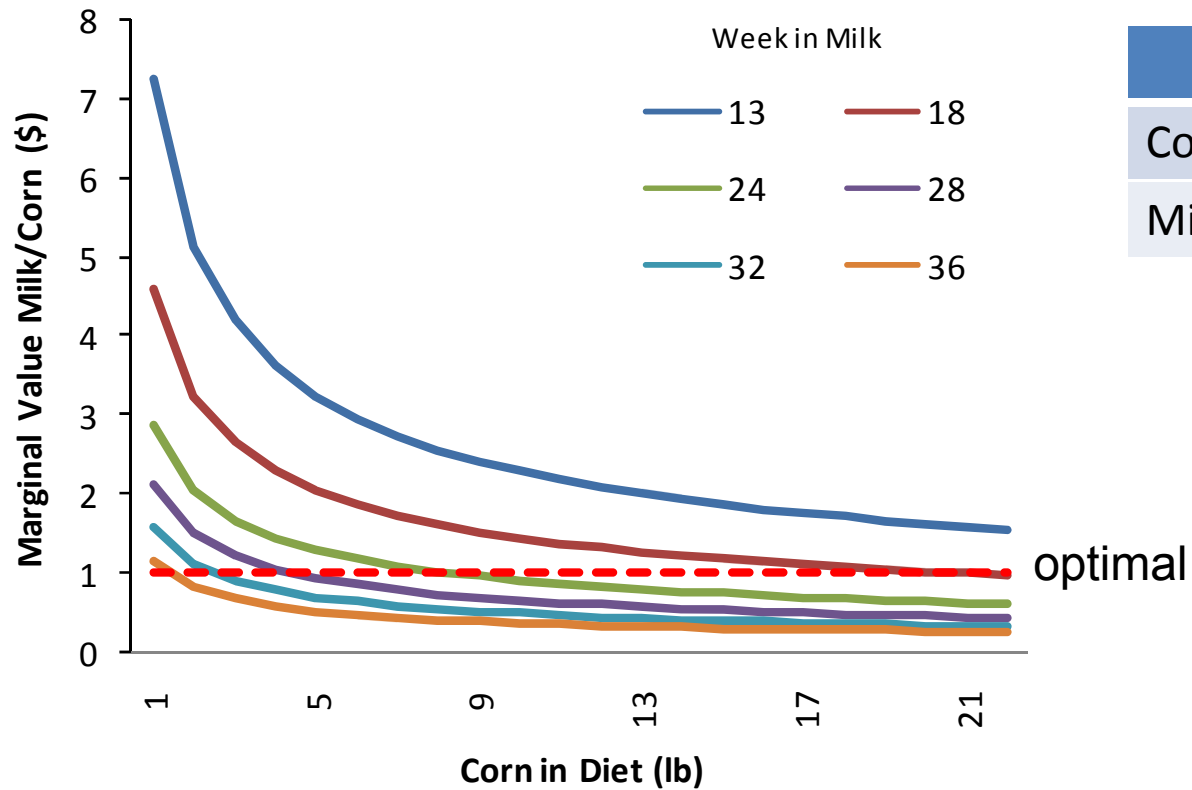
Marginal value of milk/corn

➤ 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?

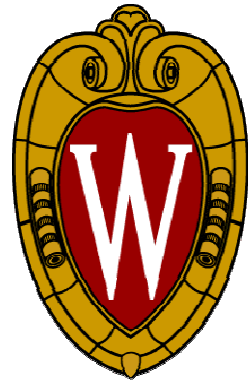
The screenshot displays the 'Dairy Management UW-Extension' website. The main content area is titled 'Decision Support Systems / Tools - Dairy Management'. It features two primary sections:

- 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 for the Excel spreadsheet and provides download links for PDF files (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 a 2-page PDF file (377 KB).

The website also features a navigation menu on the left with options like '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/>

Optimal Corn Grain Feeding



THE UNIVERSITY
of
WISCONSIN
MADISON

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

UW
Extension

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