

---

# **Dairy Business Analysis Project 1997: Regional Characteristics and Financial Performance**

**Marvin J. Hoekema  
Manager, Dairy Business Analysis Project  
Department of Dairy and Poultry Sciences  
University of Florida**

# 1997 Dairy Business Analysis Project

---

Russ Giesy

Mary Sowerby

David Solger

Travis Seawright

Chris Vann

Marvin Hoekema

Pat Miller

Bob Tervola

Patrick Joyce

Michael DeLorenzo

*Florida Dairy Check-Off*

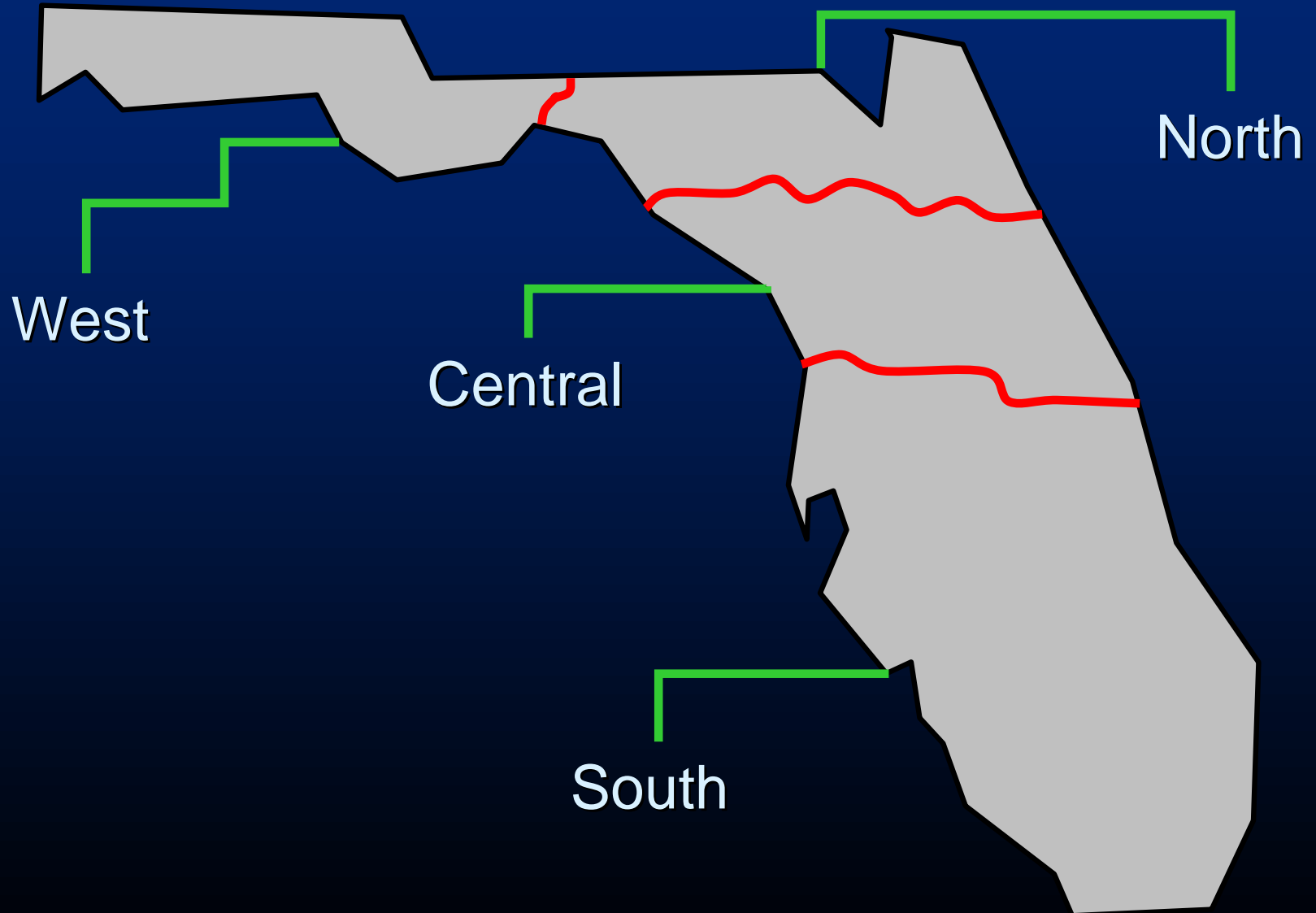
# Overview

---

- Financial performance: revenues, expenses, and net farm income.
- Expense composition: where the money was spent.
- Asset composition: where the money was invested.

# Region Map

---



# Definitions

---

$$\text{Asset turnover} = \frac{\text{Total revenues}}{\text{Average total assets}}$$

$$\text{Operating profit margin} = \frac{\text{Net farm income} + \text{Interest} - 50,000}{\text{Total revenues}}$$

$$\text{Return on assets} = \frac{\text{Net farm income} + \text{Interest} - 50,000}{\text{Average total assets}}$$

$$\text{Return on equity} = \frac{\text{Net farm income}}{\text{Average total equity}}$$

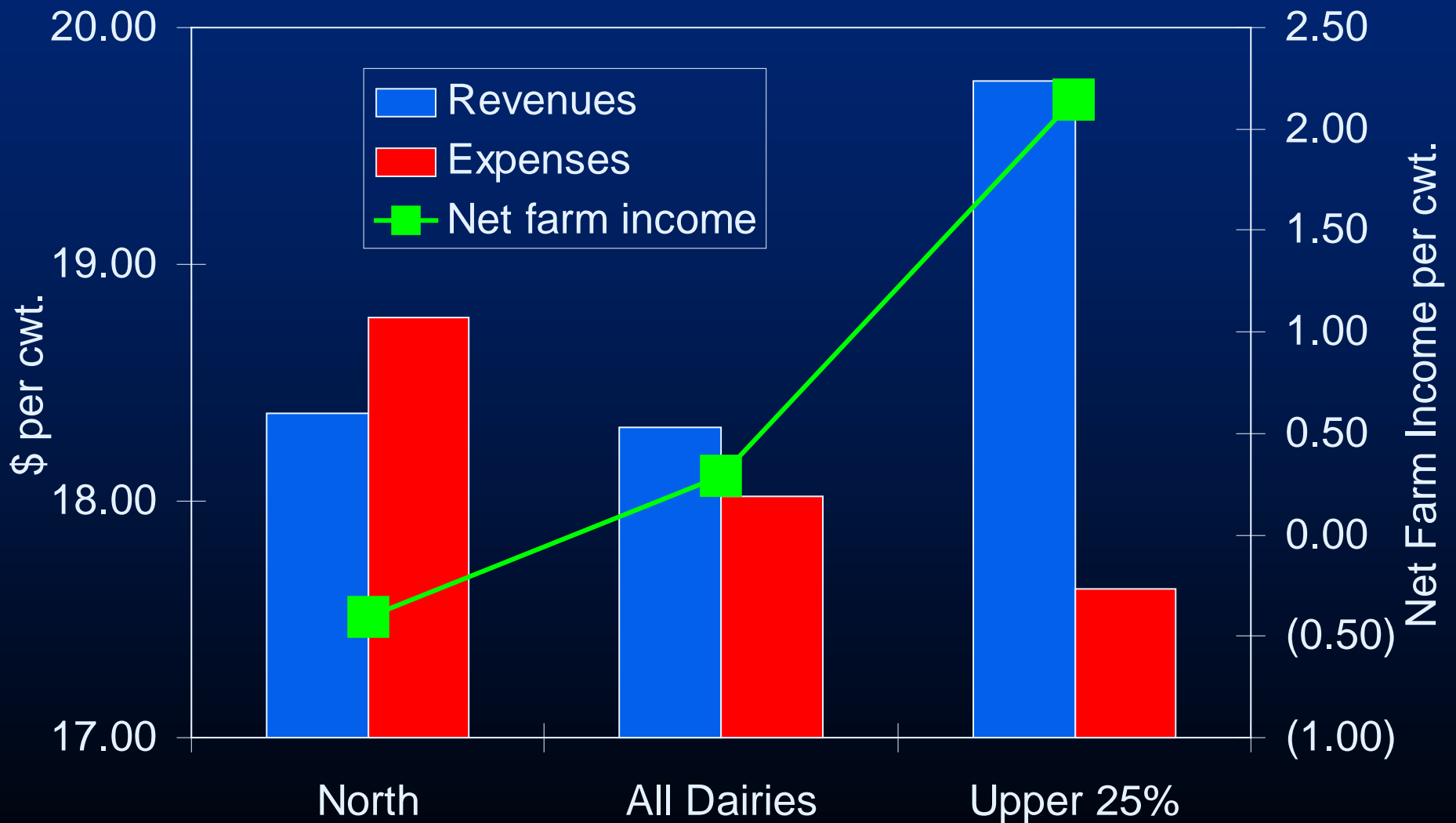
# 1997 Revenues and Expenses by Group

Category (per cwt.)	North	All Dairies	Upper 25%
Total revenues	18.37	18.31	19.77
Personnel	2.49	2.45	2.34
Purchased feed	7.77	8.37	8.40
Crops	0.37	0.33	0.55
Machinery	0.86	0.86	0.83
Livestock	3.34	2.44	2.13
Marketing	1.10	1.06	0.96
Real estate	0.48	0.50	0.56
Other	1.66	1.39	1.24
Depreciation	0.70	0.63	0.63
Total expenses	18.78	18.02	17.63
Net farm income	-0.41	0.29	2.15

# 1997 Descriptive Statistics by Group

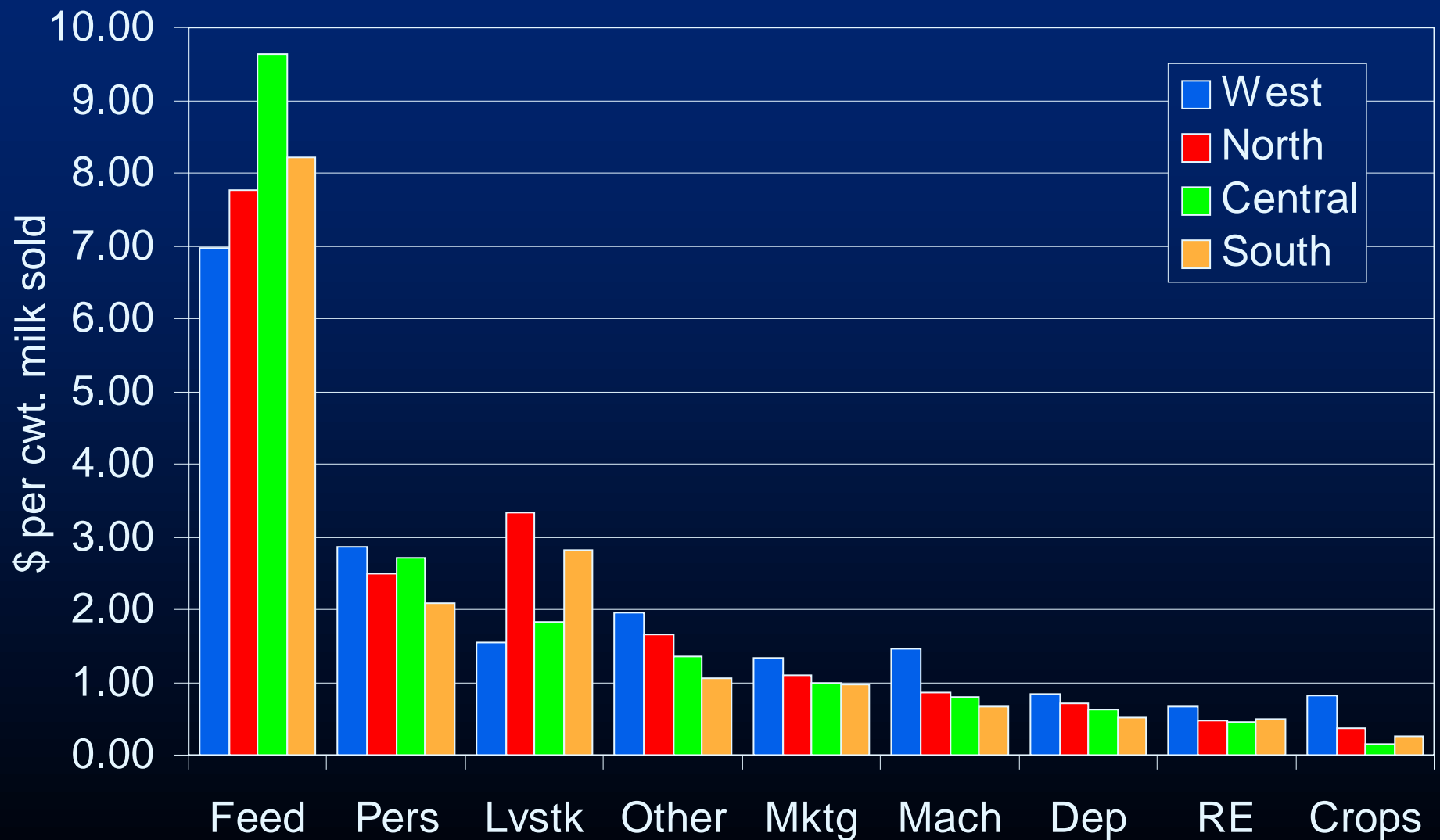
Category	North	All dairies	Upper 25%
Number of cows	634	1,502	1,428
Number of heifers	388	883	928
Milk sold per cow (pounds)	16,441	17,014	17,053
Cull rate	45%	41%	41%
Assets per cow	\$4,411	\$4,178	\$3,872
Rate of return on assets	0%	3%	9%
Operating profit margin	(3%)	2%	11%
Asset turnover ratio	0.72	0.84	0.94

# Revenues, Expenses, and Net Farm Income by Group

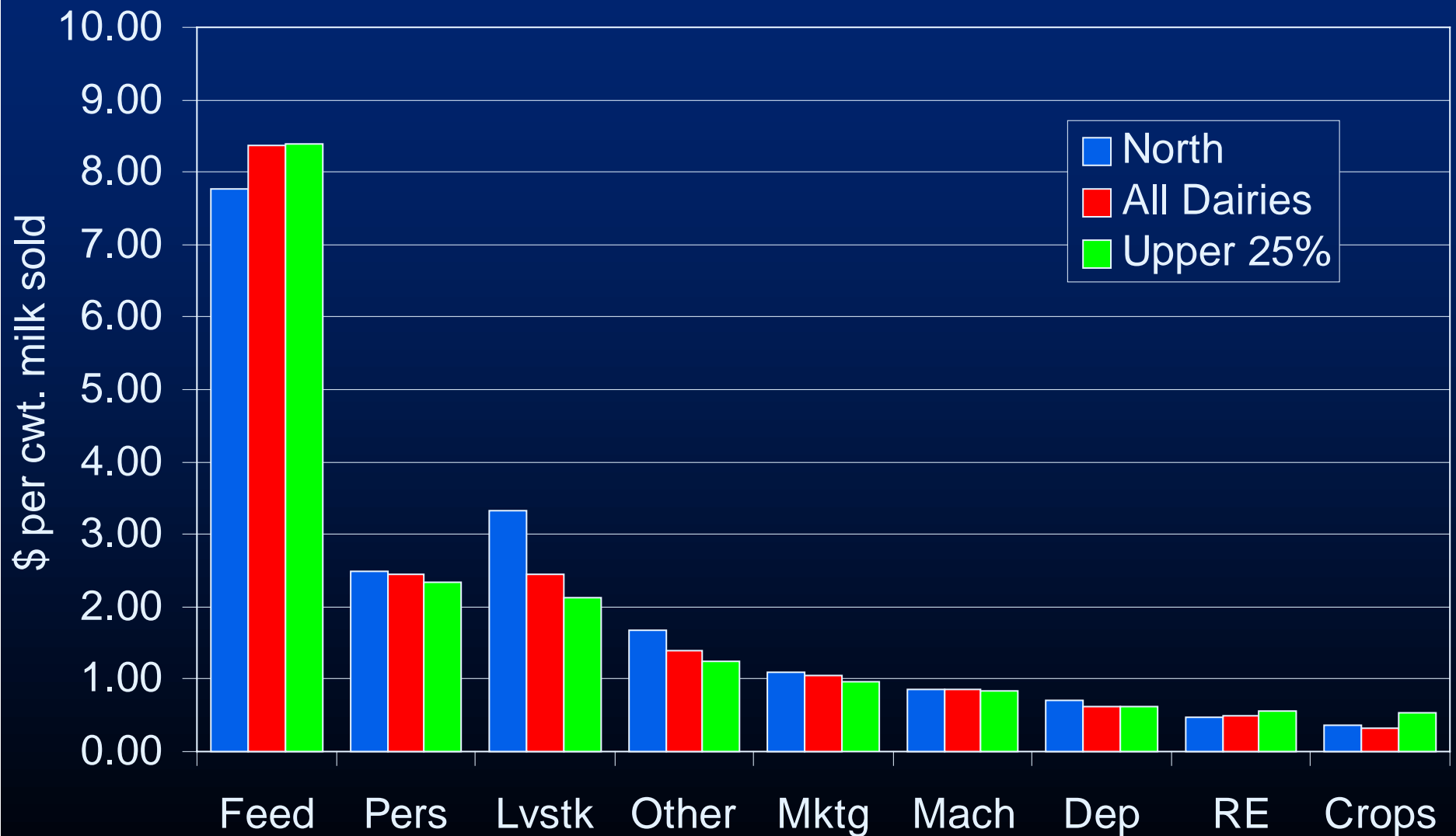




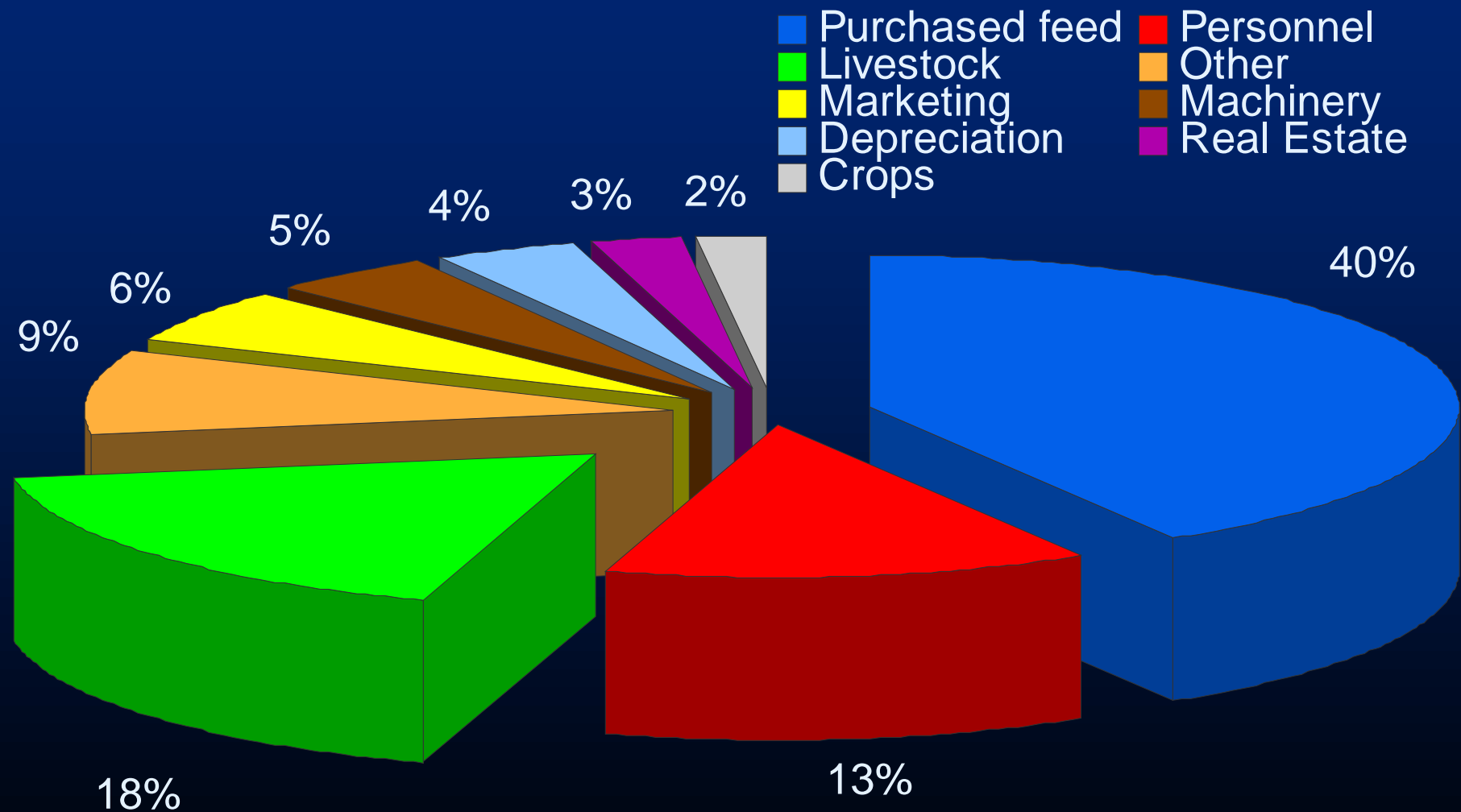
# Expense Categories by Region



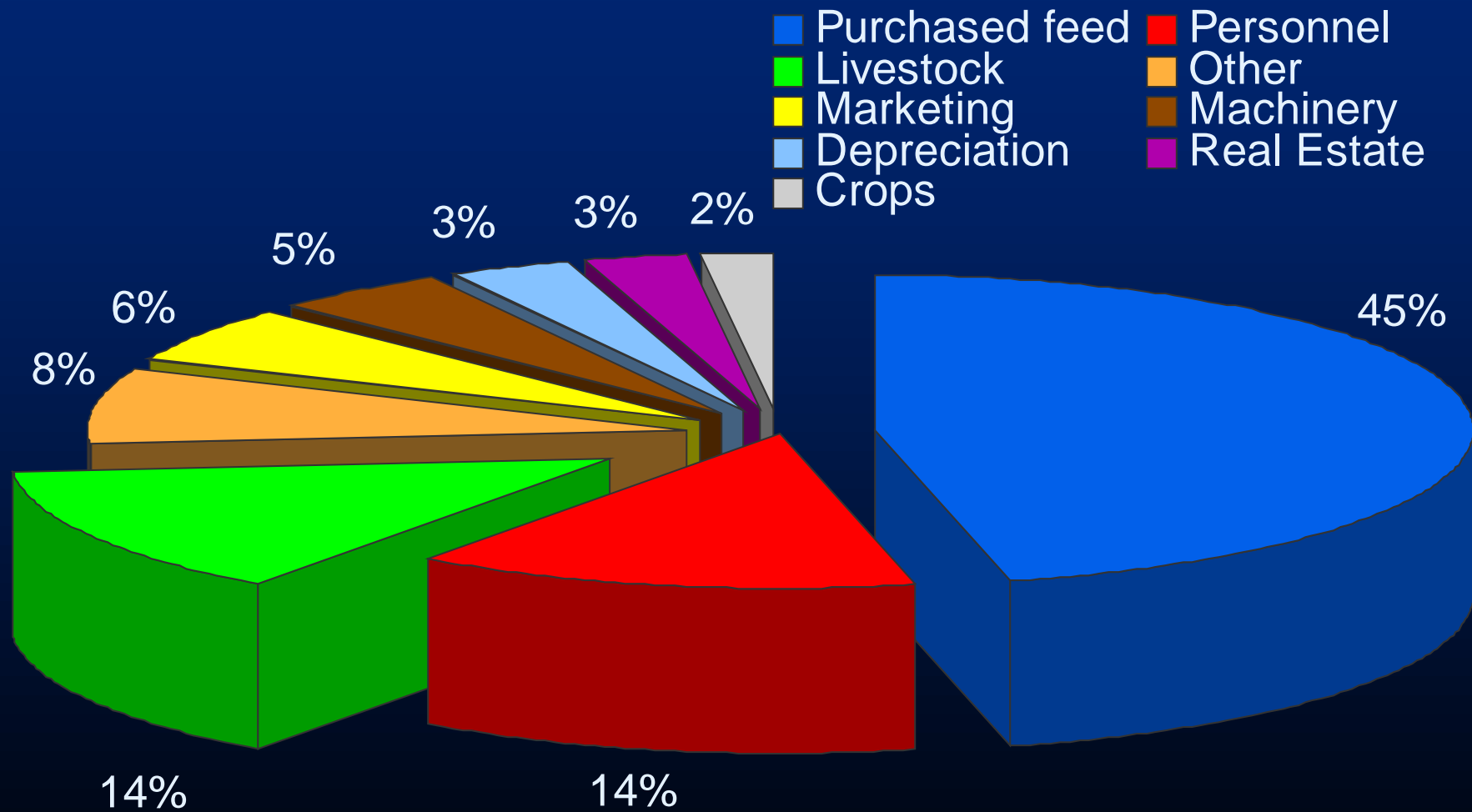
# Expense Categories by Groups



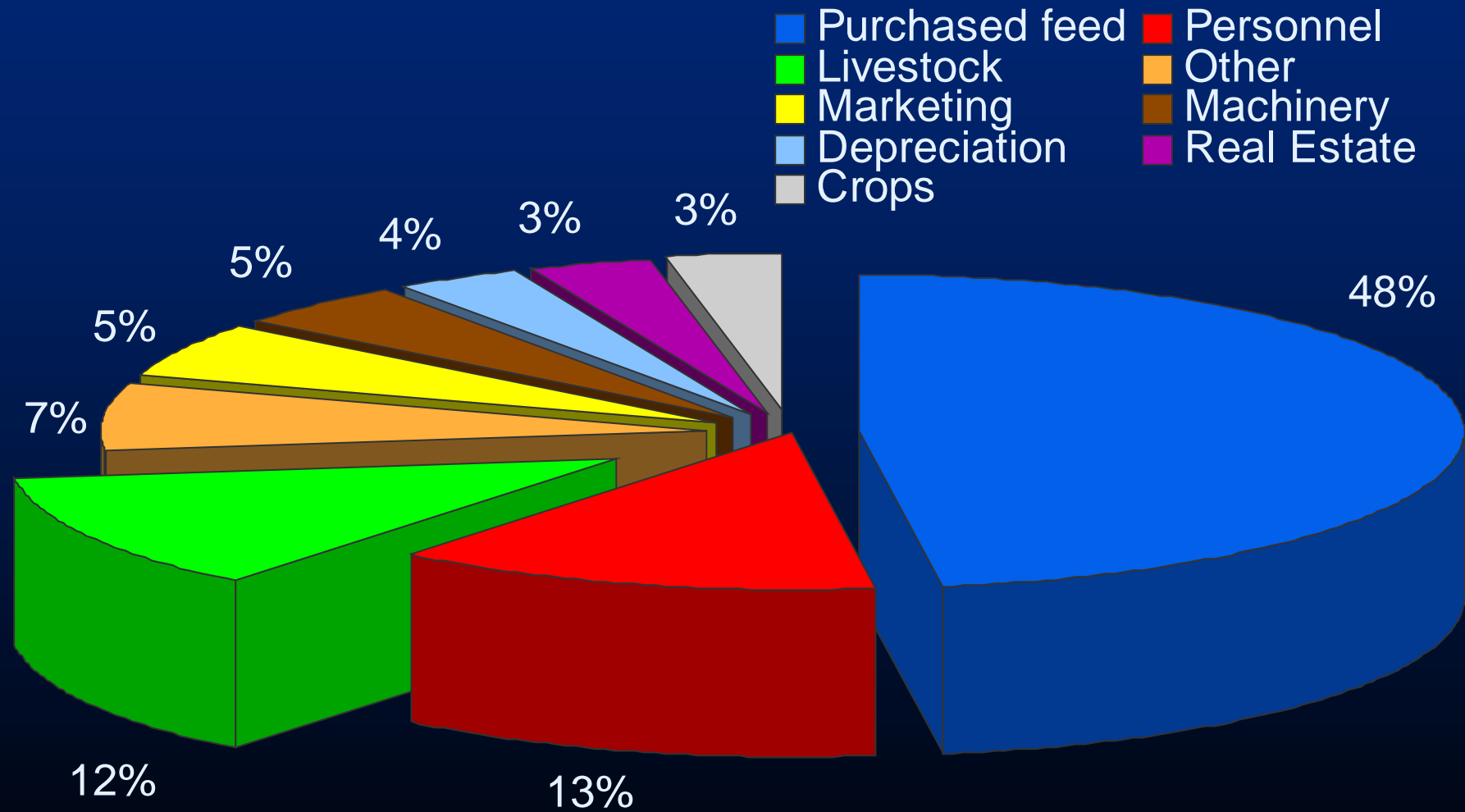
# Expense Composition-North Region



# Expense Composition-All DBAP Dairies



# Expense Composition-Top 25% Dairies



## Observations-Expenses

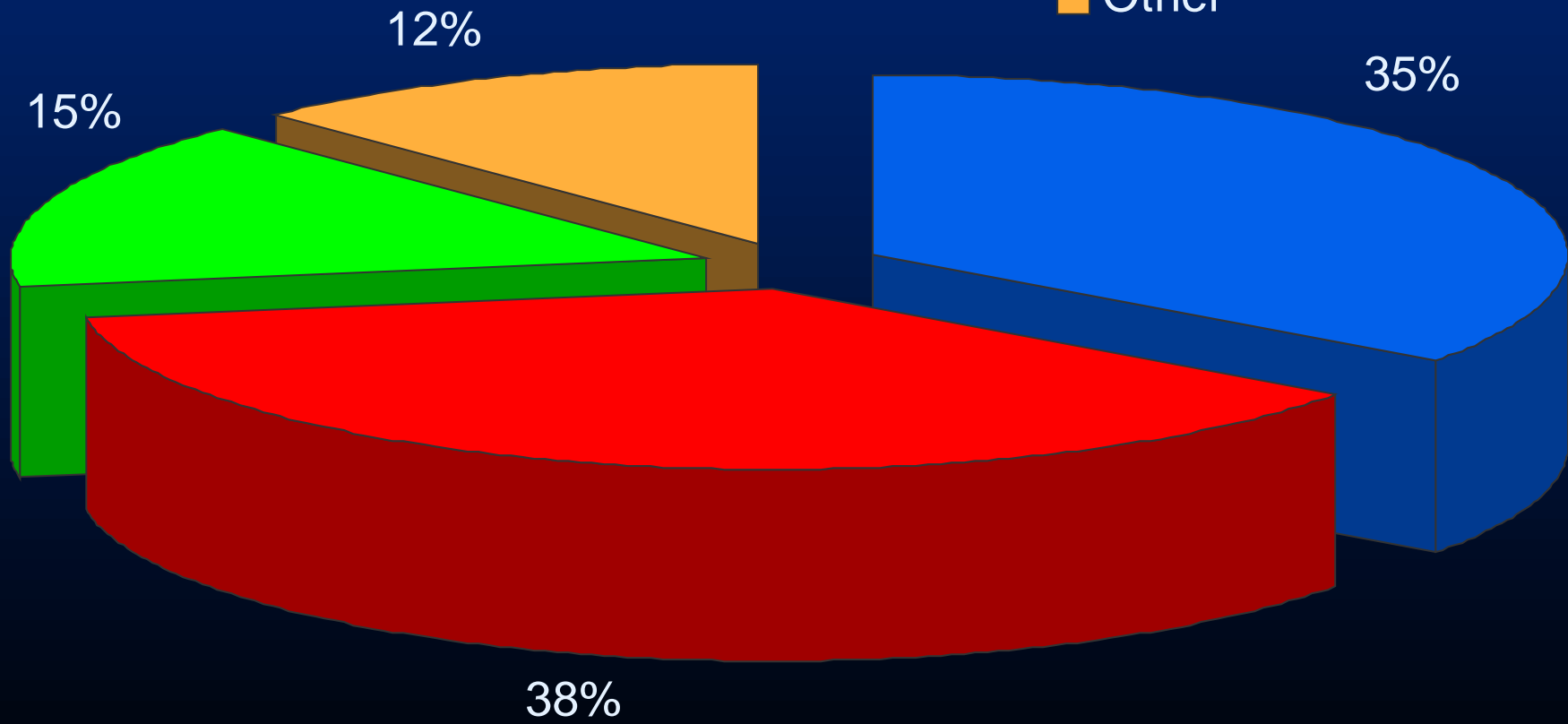
---

- North region had highest total expenses per cwt. milk sold when compared to average and Top 25% groups.
- North region had greater portion of expenses (18%) in livestock expenses.
- North region had lowest portion of expenses (40%) in purchased feed.
- Translation: More money was spent on activities that did not generate profits. This resulted in (3%) profit margin.

# Asset Composition-North Region

---

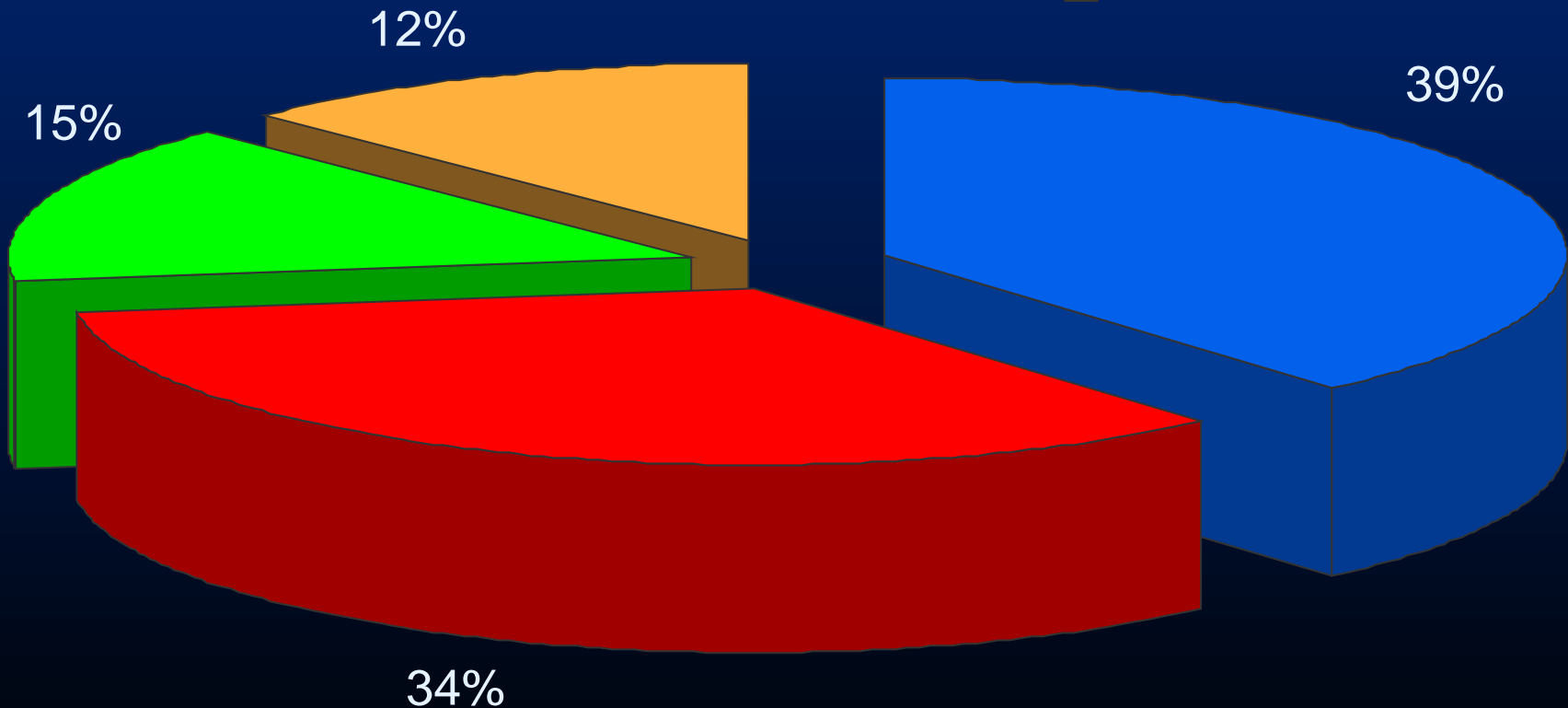
- Livestock
- Real Estate/Buildings
- Machinery/Equipment
- Other



# Asset Composition-DBAP Dairies

---

- Livestock
- Real Estate/Buildings
- Machinery/Equipment
- Other

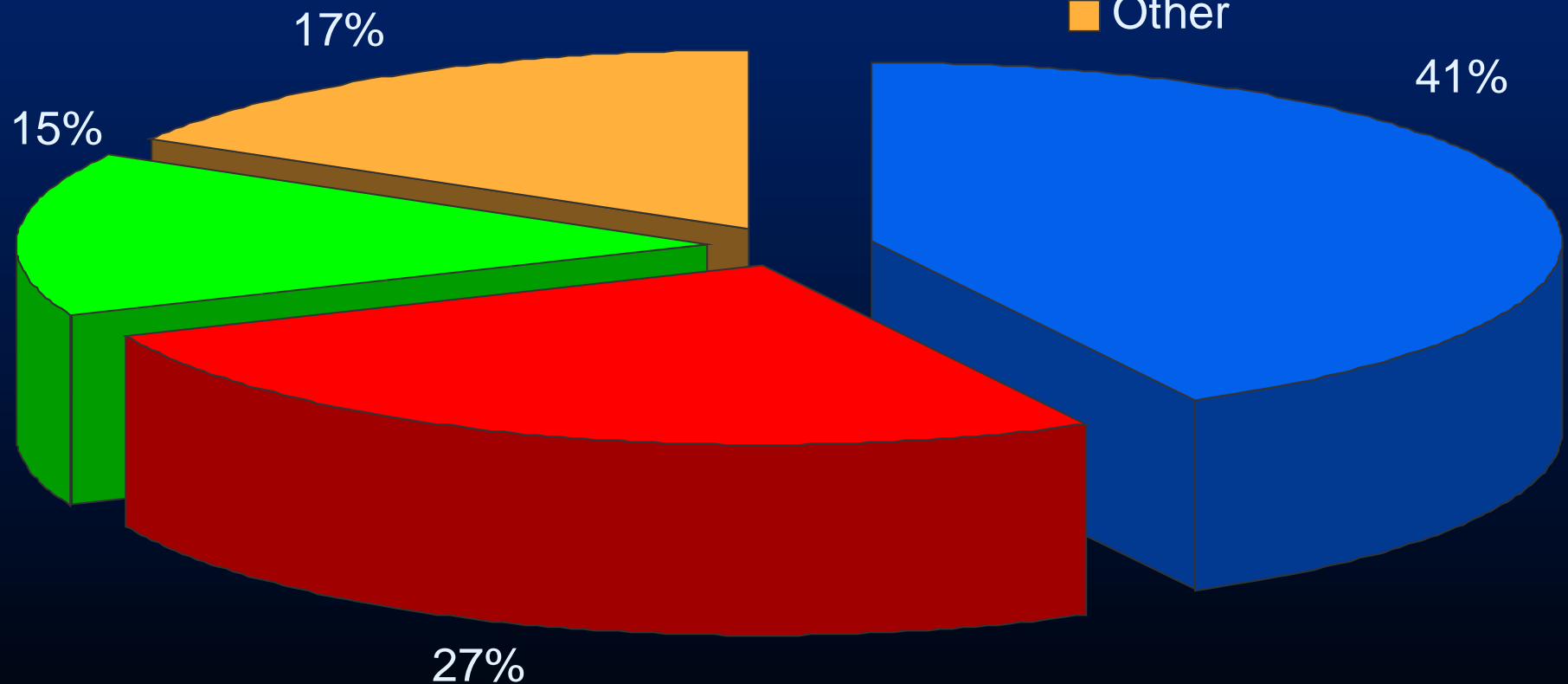




# Asset Composition-Top 25%

---

- Livestock
- Real Estate/Buildings
- Machinery/Equipment
- Other



## Observations-Assets

---

- North region had the largest total assets per cow.
- North region had highest portion of assets invested in real estate (38%) and the lowest portion invested in livestock (35%).
- Translation: North region had the lowest asset turnover ratio (0.72) which constrained profitability.

## Challenges-North Region

---

- Highest replacement expense among groups and regions. This is driven by a 45% cull rate.
- Assets per cow were above average. Majority of assets should be in livestock.

## Recommendations-North Region

---

- Decrease expenses. Highest among regions for total expenses per cwt. milk sold.
- Decrease cull rate. High herd turnover shifted expenses from feed to replacement.
- Keep feed expenses under control.