



# **ND Farm & Ranch Business Management 2012 Region 3 Annual Report**

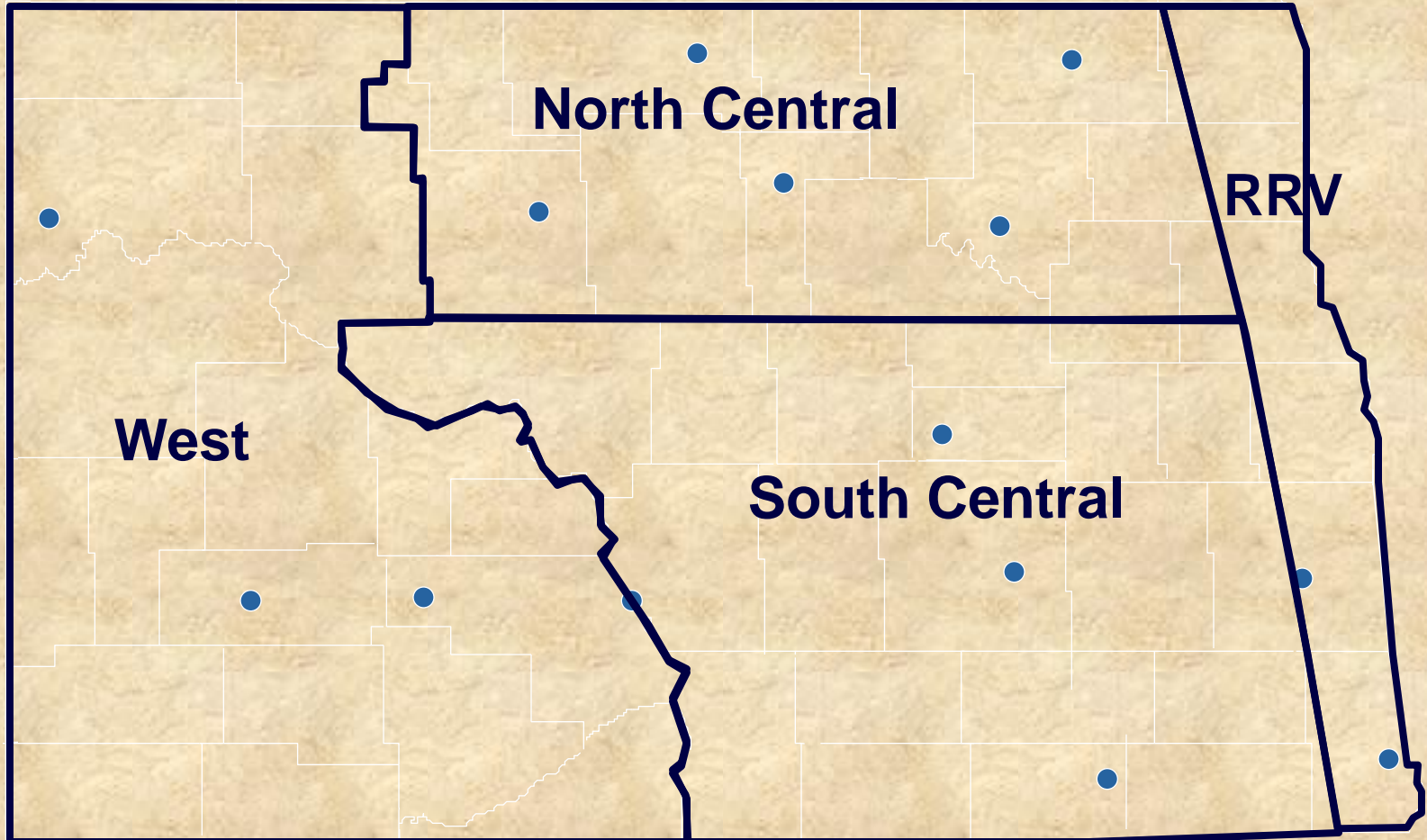
**Steve Metzger  
Carrington Research Extension Center and  
Carrington Public Schools  
Carrington, ND**

# **Region III**

## **Farm Business Management Programs**

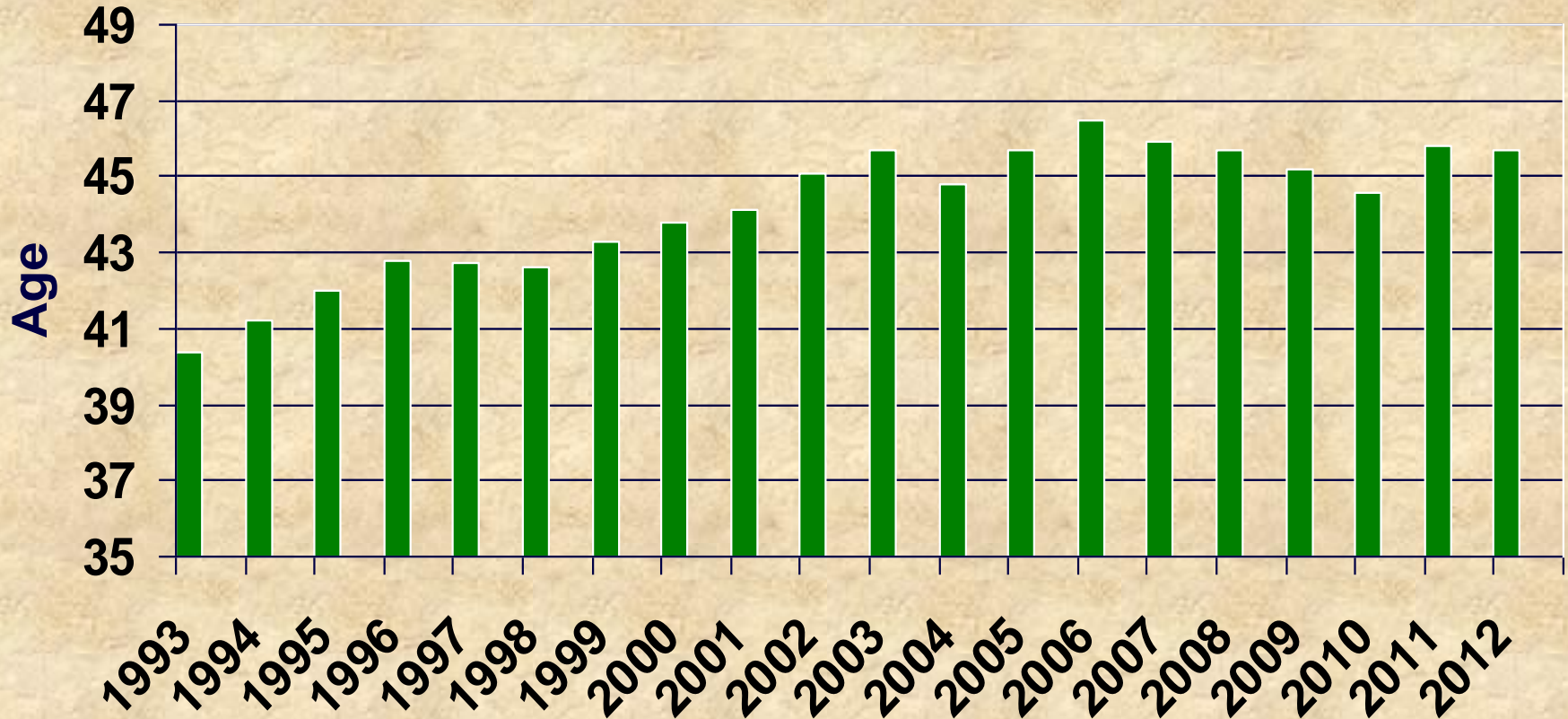
- Bismarck (Eastern)
- Carrington
- Jamestown
- Casselton (Western)
- Oakes
- Wahpeton (Western)

# North Dakota Farm Business Management Programs are located in four regions across North Dakota

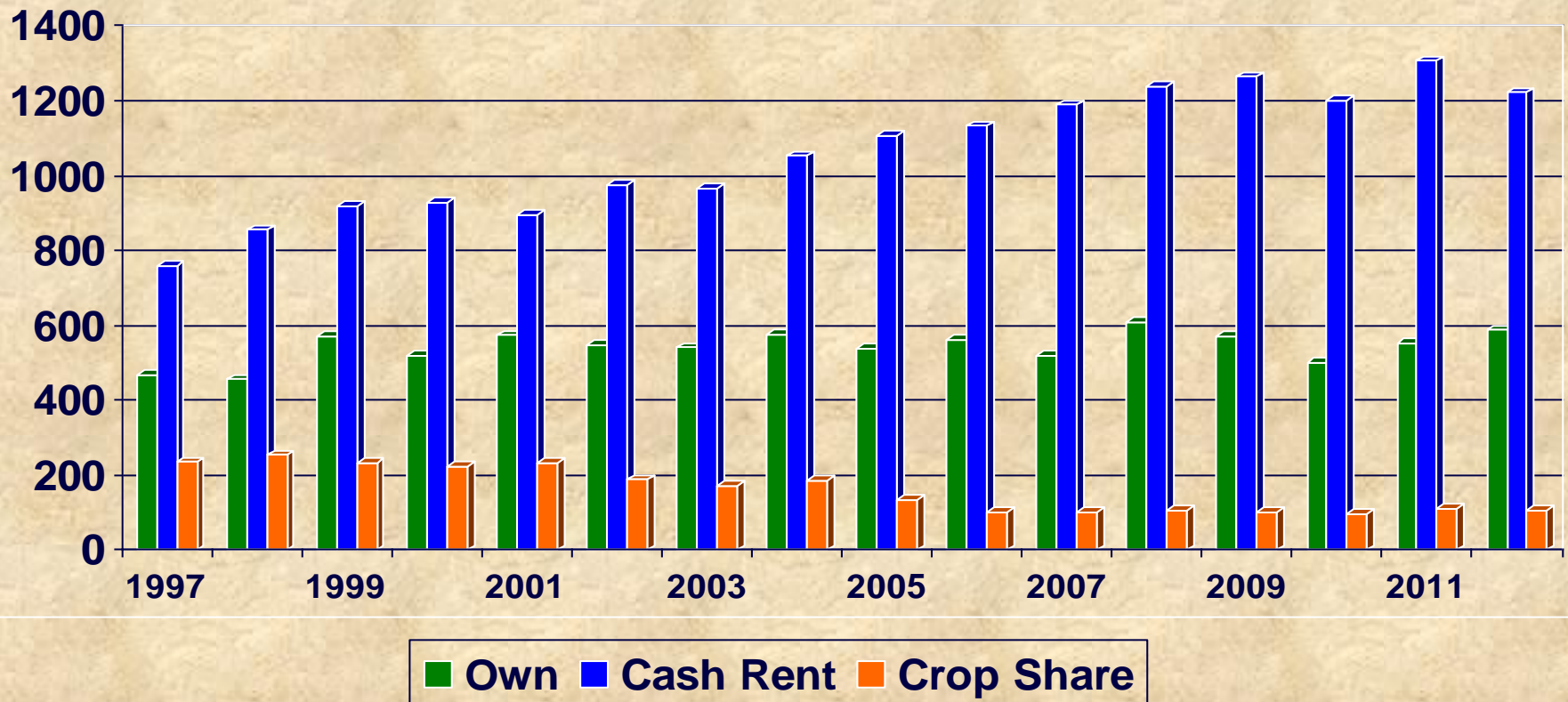


**WHAT TYPE OF FARMS  
MAKE UP THE  
BASE OF INFORMATION?**

# Average Farmer Age in Region III



# Crop acres totaled 1,914 in 2012, Increasing 31% since 1997



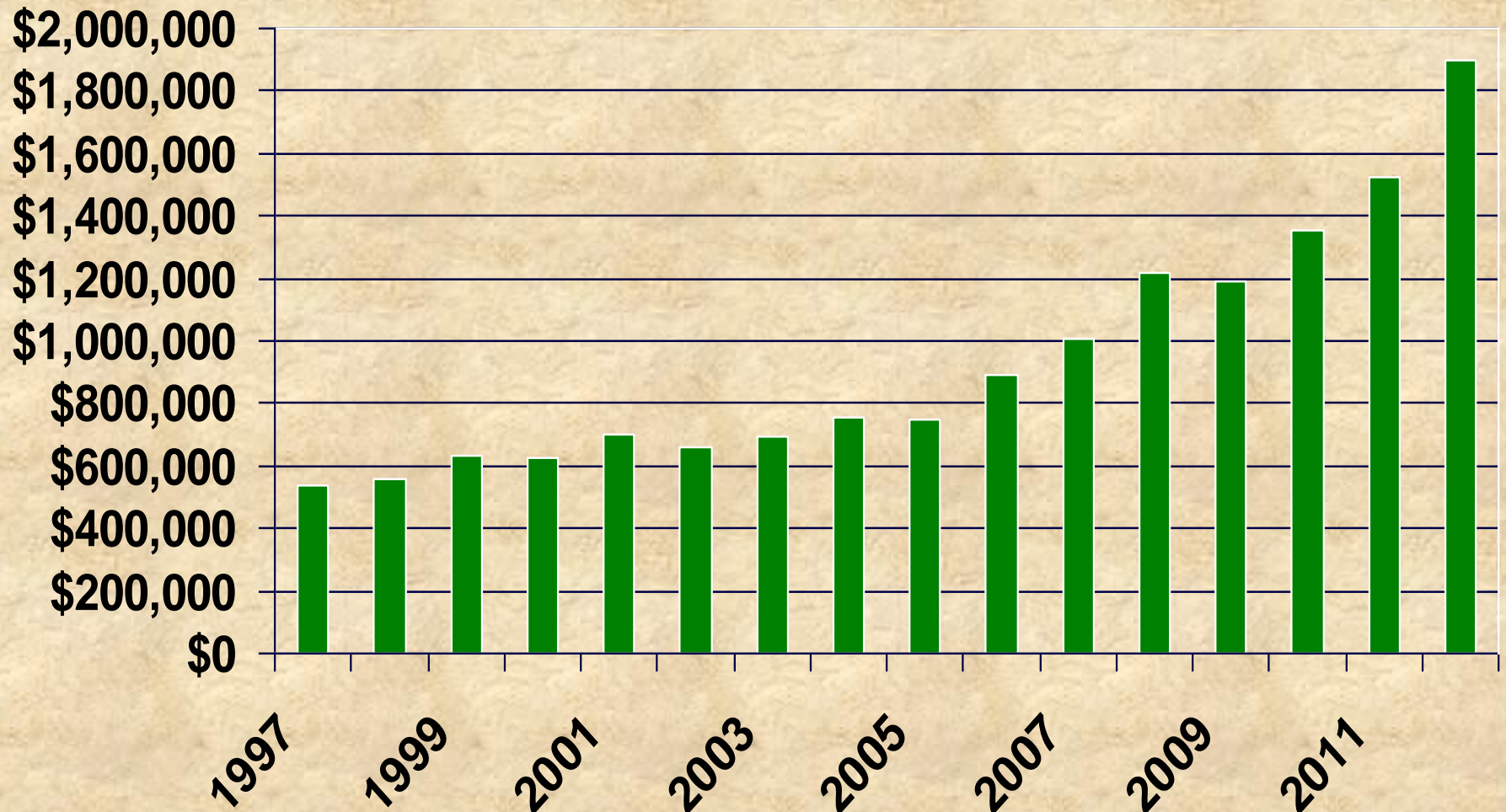
# Total Farm Assets, Cost Basis

Total farm assets for enrolled farms increased \$375,643 or 25% from last year. An increase of 255% since 1997.

● 1997	\$535,015
● 1998	\$554,459
● 1999	\$631,196
● 2000	\$626,692
● 2001	\$699,536
● 2002	\$657,201
● 2003	\$693,493
● 2004	\$758,314
● 2005	\$747,601
● 2006	\$892,986
● 2007	\$1,007,440
● 2008	\$1,218,736
● 2009	\$1,188,358
● 2010	\$1,355,383
● 2011	\$1,521,843
● 2012	\$1,897,306



# Growth of Farm Assets in Region 3, An increase of 255% since 1997





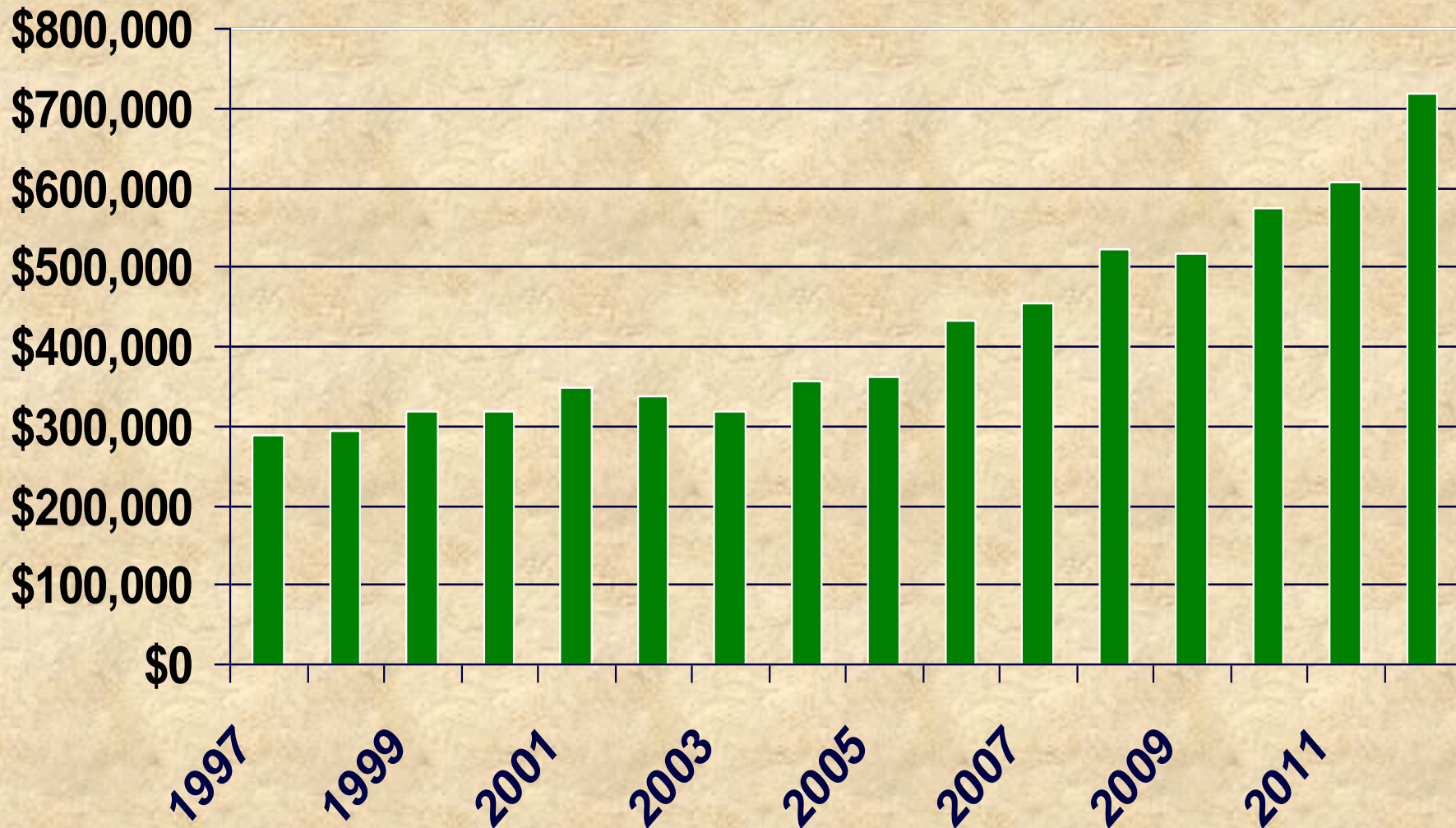
# Total Farm Liabilities

Total average farm liabilities increased \$112,691 or 19% from last year. Last decreased in 2009. This is an increase of 150% since 1997.

● 1997	\$ 287,493
● 1998	\$ 294,261
● 1999	\$ 319,213
● 2000	\$ 317,231
● 2001	\$ 347,138
● 2002	\$ 338,736
● 2003	\$ 317,242
● 2004	\$ 356,357
● 2005	\$ 361,193
● 2006	\$ 432,110
● 2007	\$ 453,700
● 2008	\$ 521,883
● 2009	\$ 517,110
● 2010	\$ 573,080
● 2011	\$ 605,746
● 2012	\$ 718,437



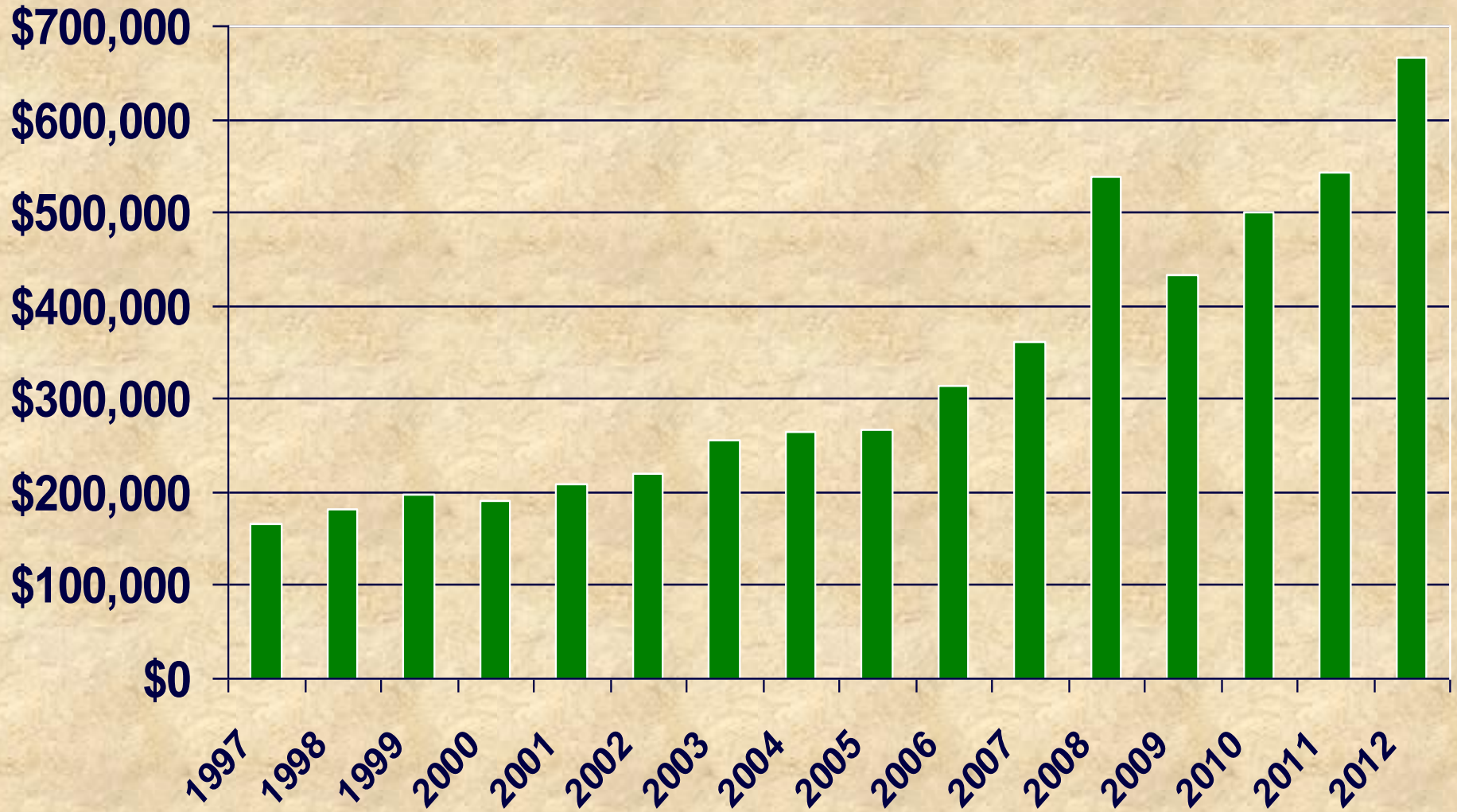
# Growth of Average Farm Liabilities Region 3, An increase of 150% since 1997



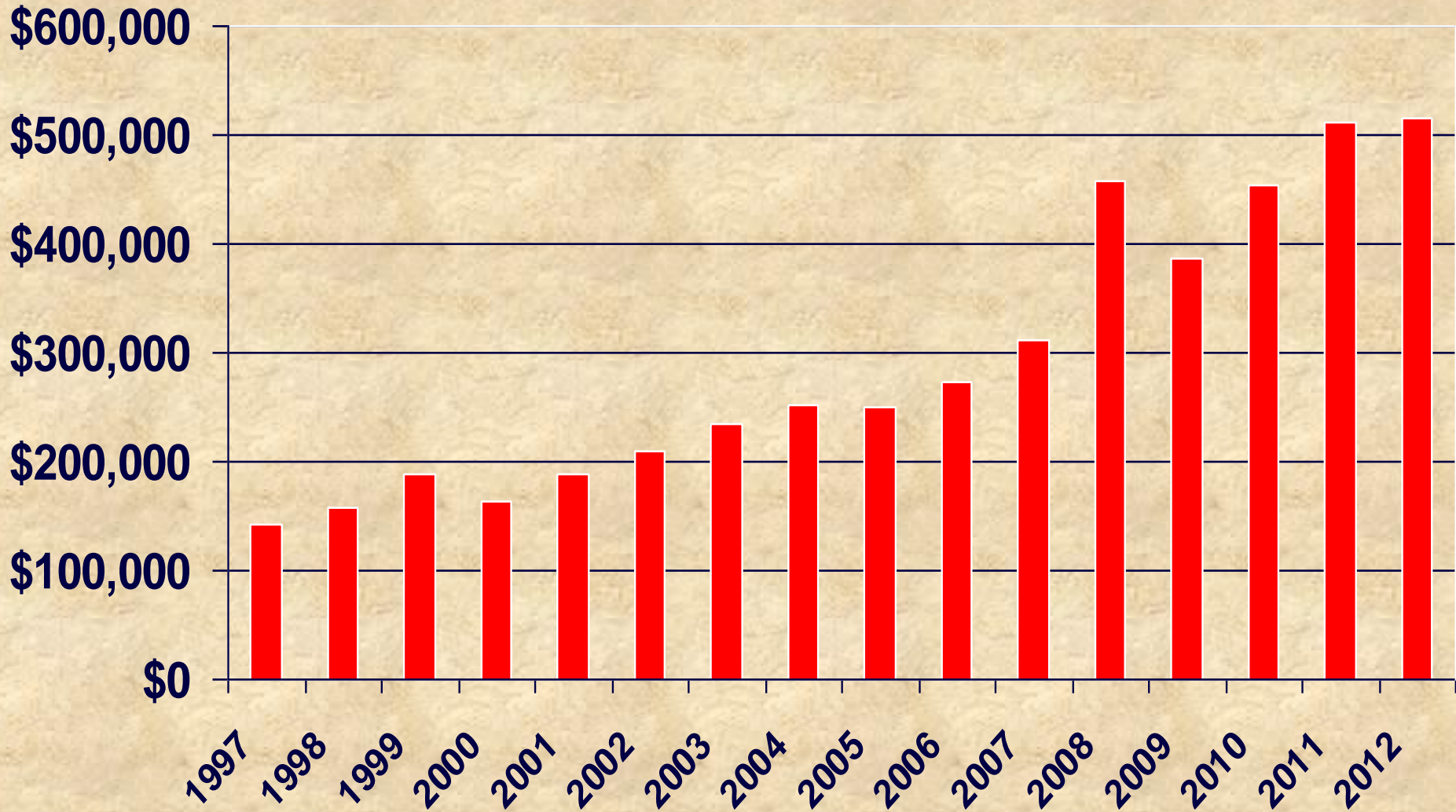
# Comparing 1997 to 2012 per Acre Cost Basis Values

- **Crop land acres, including haylands, have increased 451 acres per farm, up 31%**
- **Asset value per acre has increased from \$366 to \$991 per acre of cropland, up 171% in the last 15 years.**
- **Liabilities have increased from \$197 to \$375 per acre of crop land, up 90% in the last 15 years.**

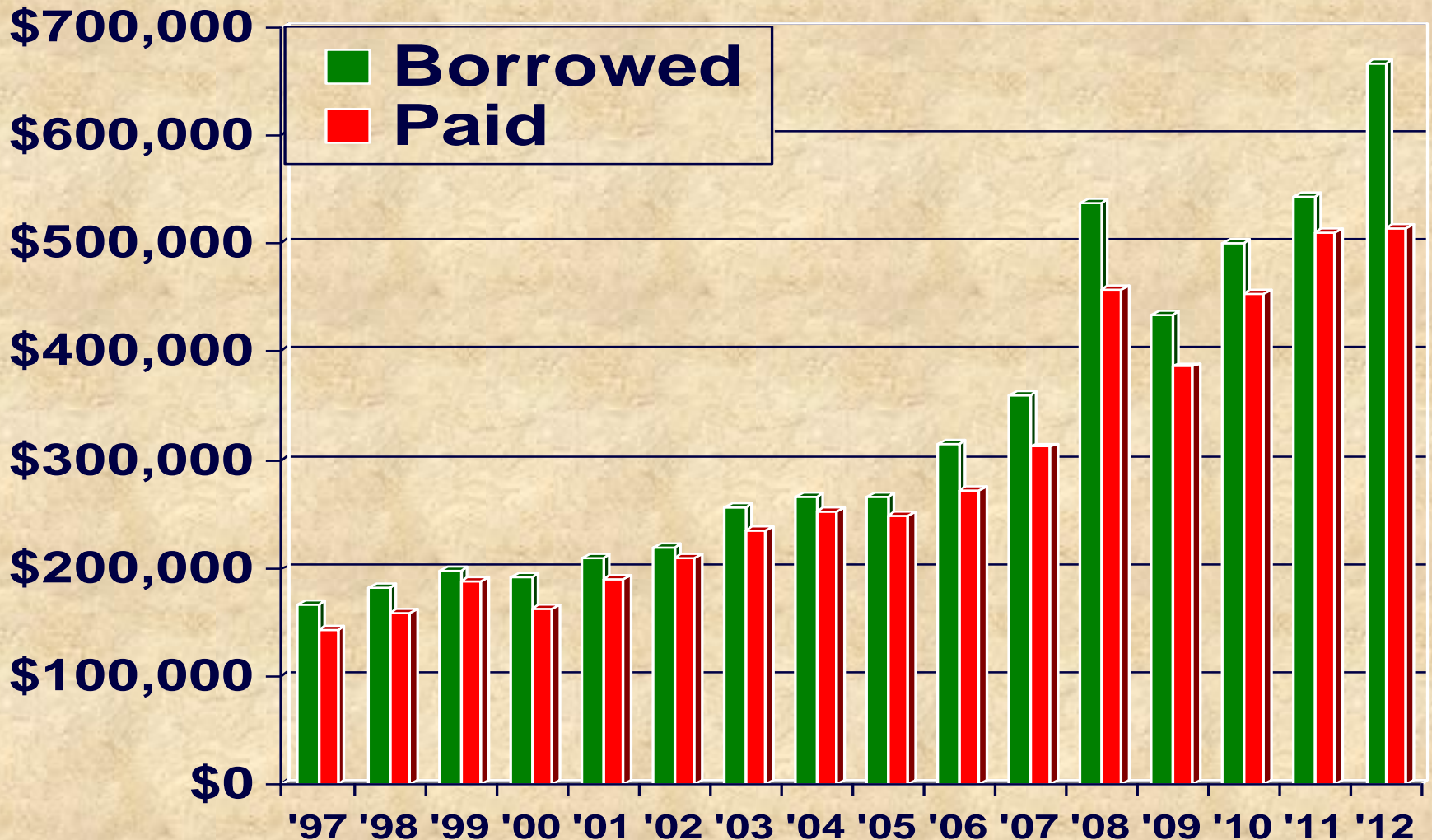
# Money Borrowed per Farm Region 3



# Principal Paid Per Farm Region 3

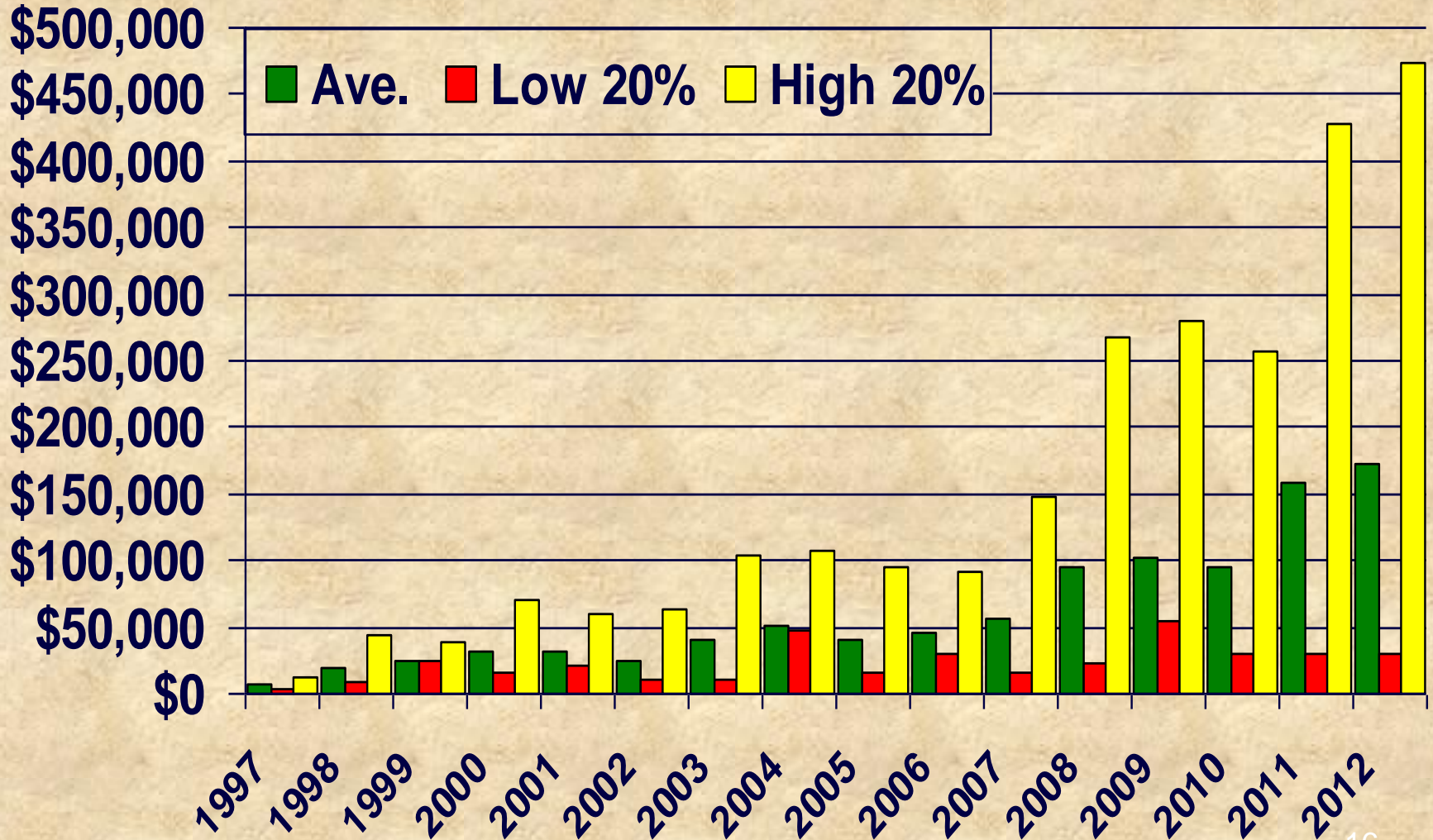


# Money Borrowed & Repaid, Region 3



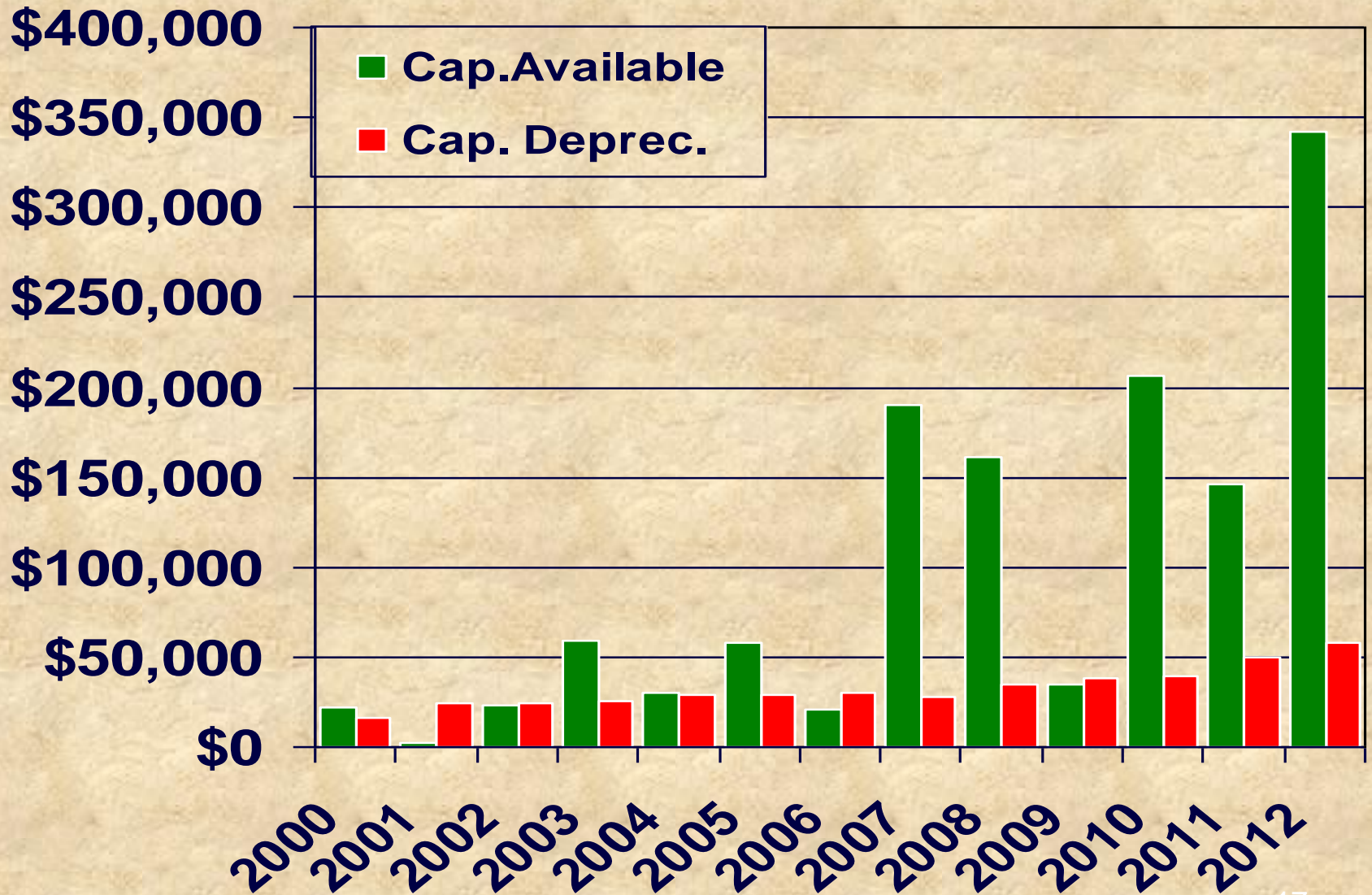
# **CAPITAL ASSETS, REPLACEMENT and DEPRECIATION**

# Capital Purchases of Machinery, Equipment & Farm Vehicles





# Capital Replacement Margin compared to Depreciation/Capital Adjustment



# Net Worth Change

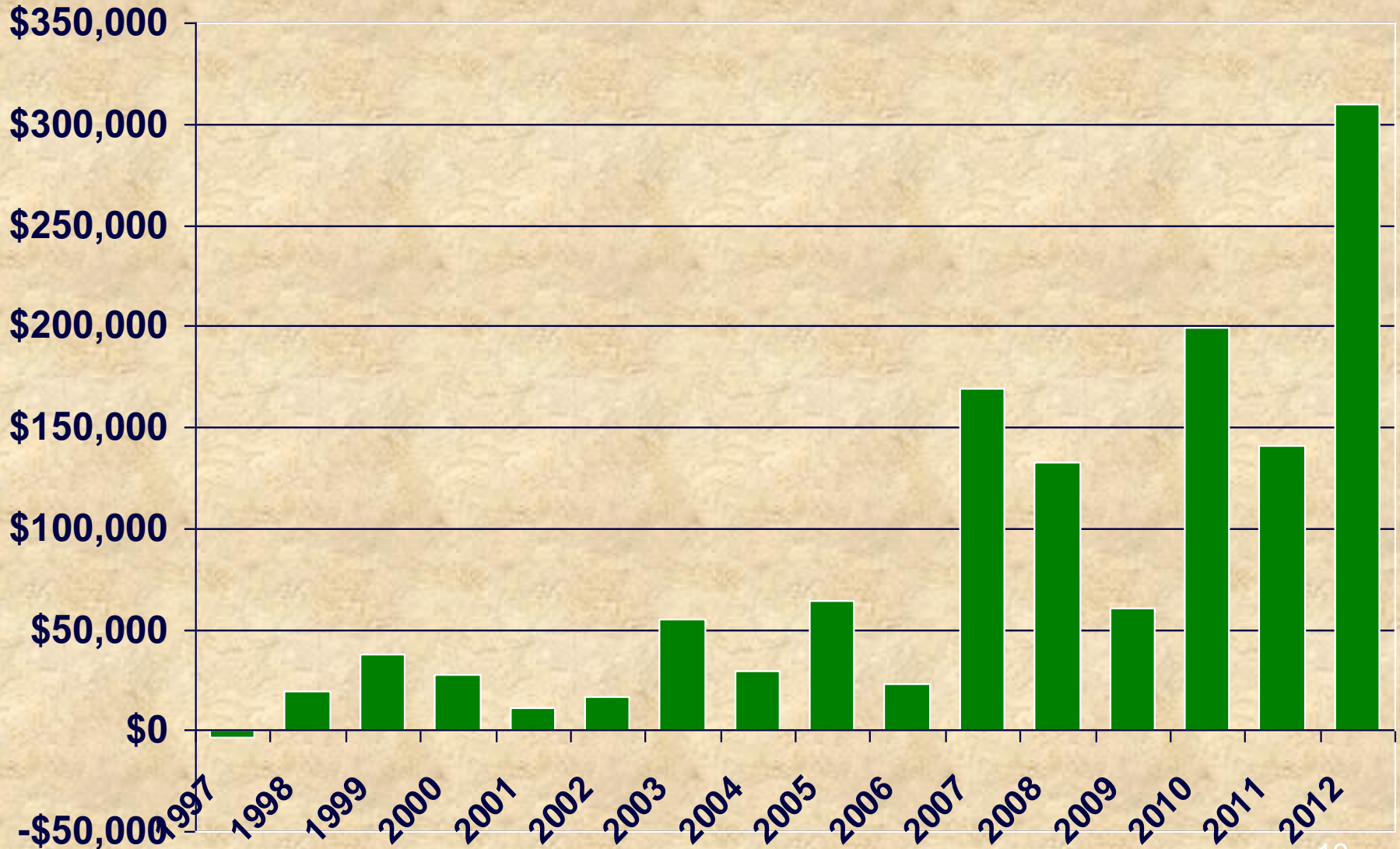
## (Change in Retained Earnings)

- This year we saw a positive change in retained earnings of \$310,126 as measured on a cost basis balance sheet.

● 1997	\$ -2,994
● 1998	\$ 19,834
● 1999	\$ 37,745
● 2000	\$ 27,834
● 2001	\$ 10,792
● 2002	\$ 16,848
● 2003	\$ 55,123
● 2004	\$ 29,228
● 2005	\$ 64,109
● 2006	\$ 23,452
● 2007	\$ 169,317
● 2008	\$ 132,714
● 2009	\$ 60,577
● 2010	\$ 199,176
● 2011	\$ 141,287
● 2012	\$ 310,126



# Net Worth Change on a Cost Basis, (Retained Earnings Change) Region III

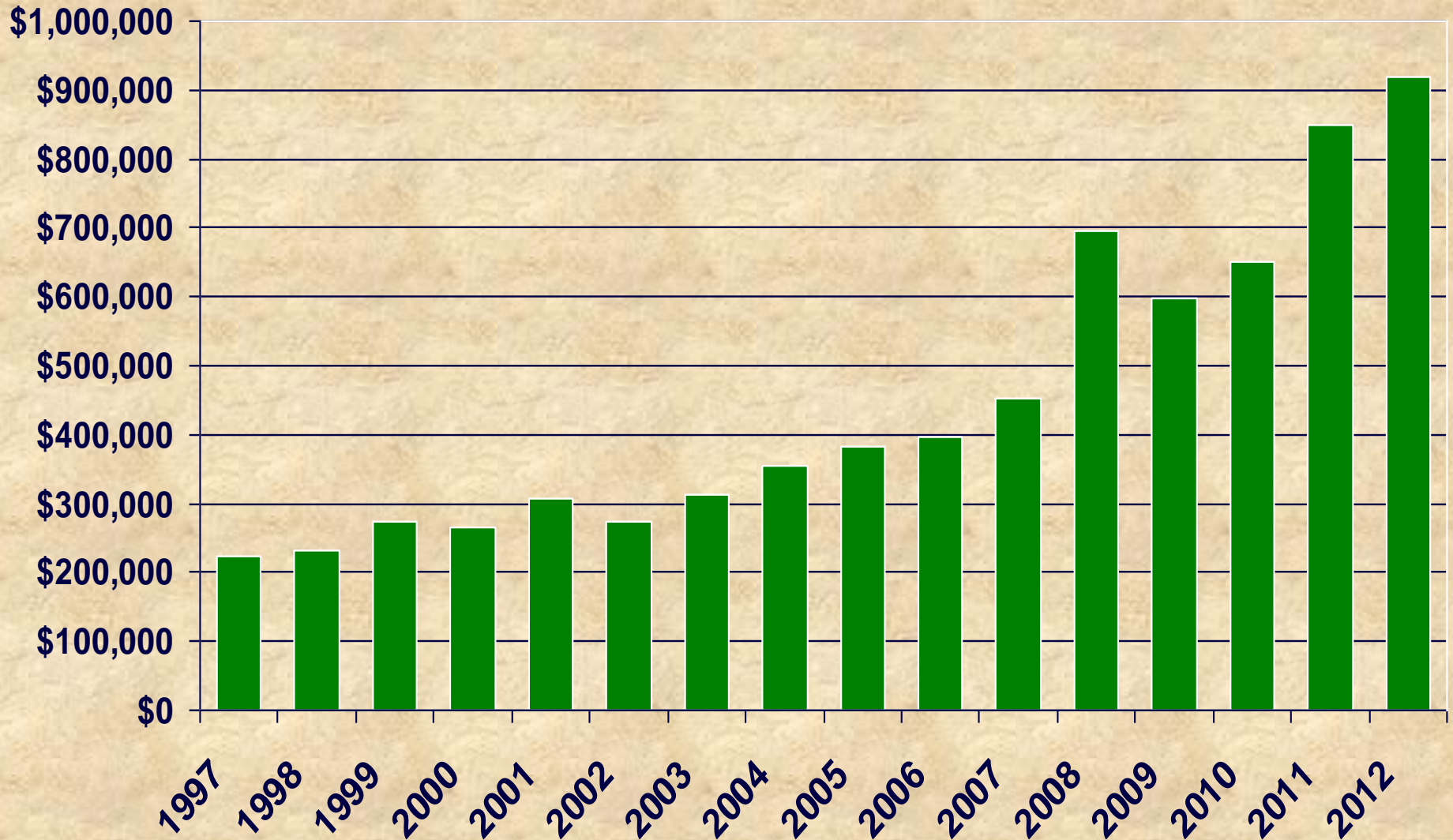


# Cash Farm Receipts

Average Cash Farm Receipts increased \$70,024

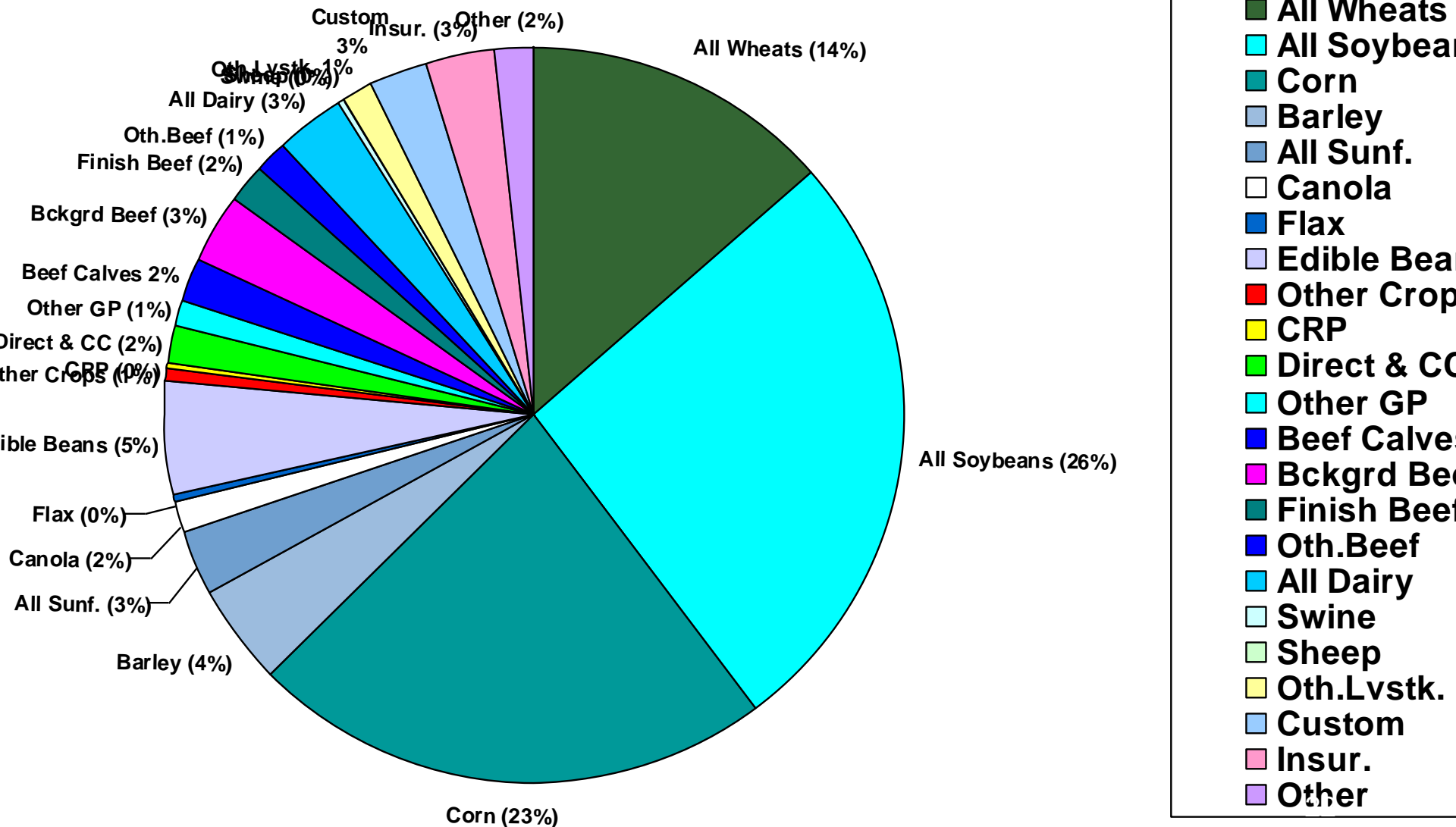
● 1997	\$ 222,208	+	0.4%
● 1998	\$ 232,647	+	4.7%
● 1999	\$ 274,297	+	17.9%
● 2000	\$ 264,560	-	3.7%
● 2001	\$ 307,971	+	16.4%
● 2002	\$ 274,731	-	10.8%
● 2003	\$ 312,889	+	13.8%
● 2004	\$ 355,869	+	13.7%
● 2005	\$ 382,304	+	7.4%
● 2006	\$ 395,617	+	3.5%
● 2007	\$ 452,249	+	14.3%
● 2008	\$ 694,575	+	53.6%
● 2009	\$ 597,240	-	14.0%
● 2010	\$ 650,382	+	8.9%
● 2011	\$ 848,141	+	30.4%
● 2012	\$ 918,165	+	8.3%
Total Change '97 to '12 =		+	313%

# Cash Farm Receipts, Region 3



# Where did the money come from?

## \$918,165 Cash Income for 2012

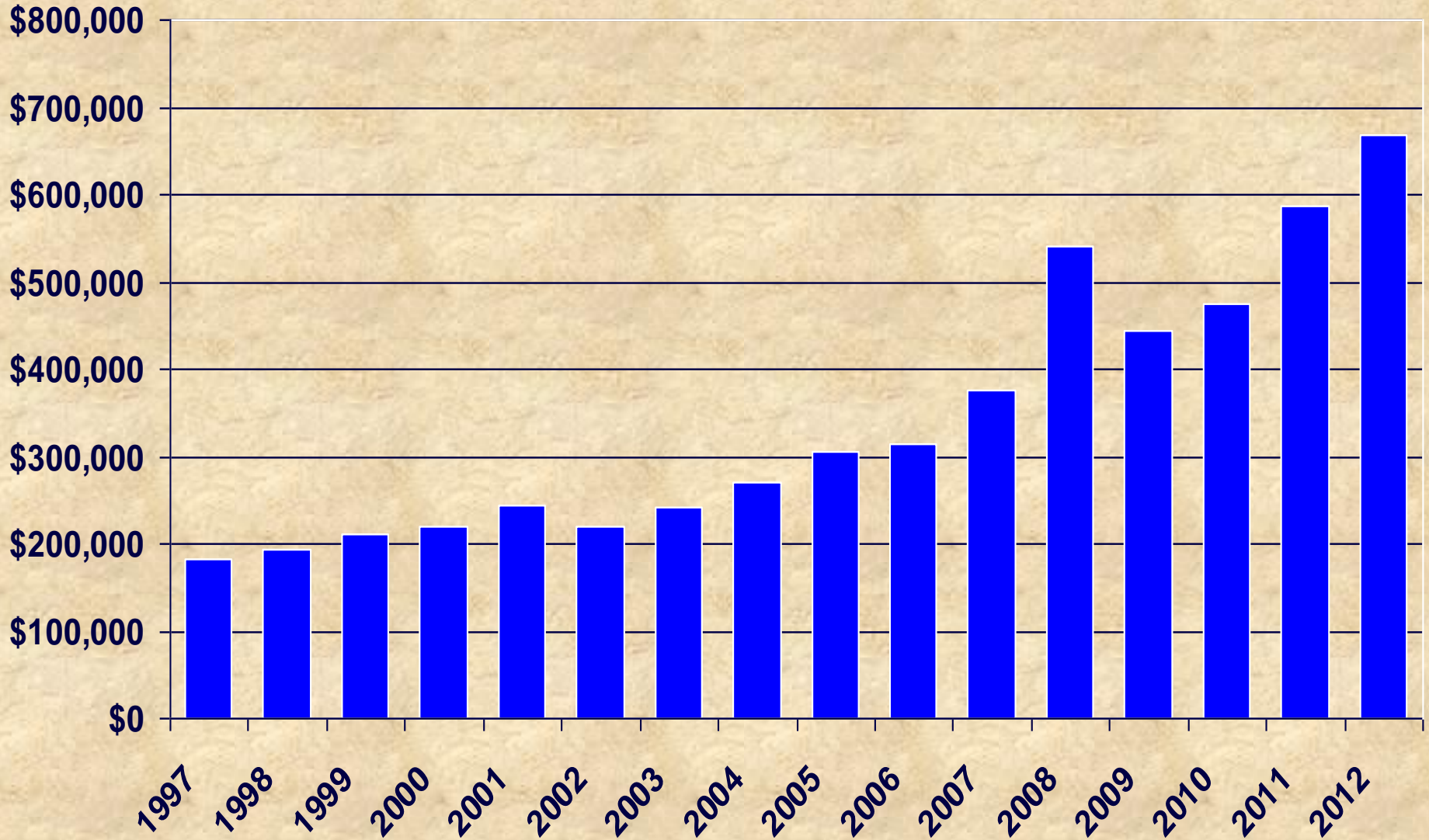


# Cash Farm Expenses

● 1997	\$ 183,110	+ 11.8%
● 1998	\$ 193,613	+ 5.7%
● 1999	\$ 212,058	+ 9.5%
● 2000	\$ 220,003	+ 3.7%
● 2001	\$ 242,972	+ 10.4%
● 2002	\$ 220,044	- 9.4%
● 2003	\$ 241,392	+ 9.7%
● 2004	\$ 270,147	+ 11.9%
● 2005	\$ 305,543	+ 13.1%
● 2006	\$ 314,372	+ 2.9%
● 2007	\$ 376,242	+ 19.7%
● 2008	\$ 540,226	+ 43.6%
● 2009	\$ 444,962	- 17.6%
● 2010	\$ 475,020	+ 9.8%
● 2011	\$ 586,337	+ 23.4%
● 2012	\$ 668,792	+ 14.1%

**Total increase '97 to '12 = + 265%**

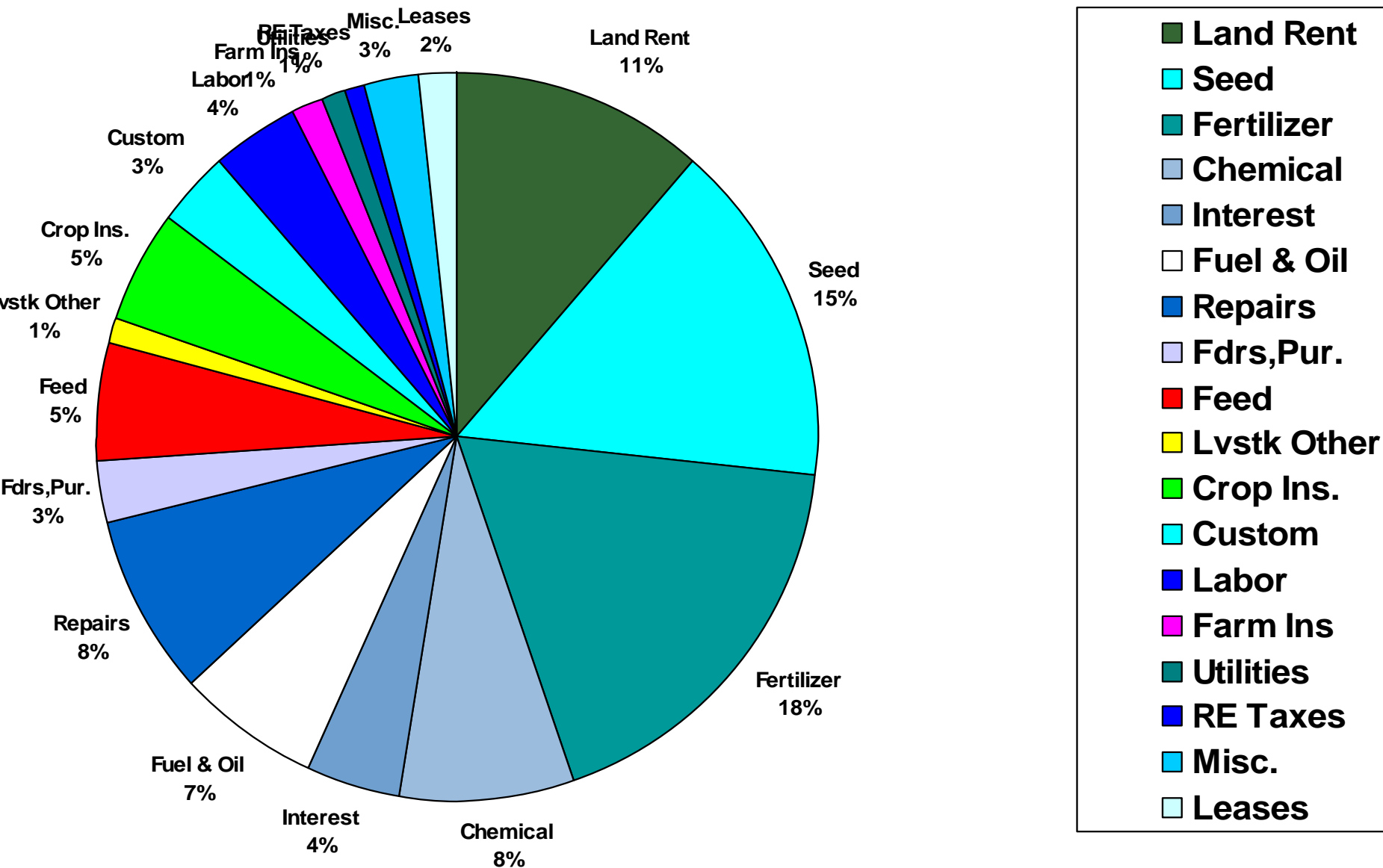
# Cash Farm Expenses Region 3



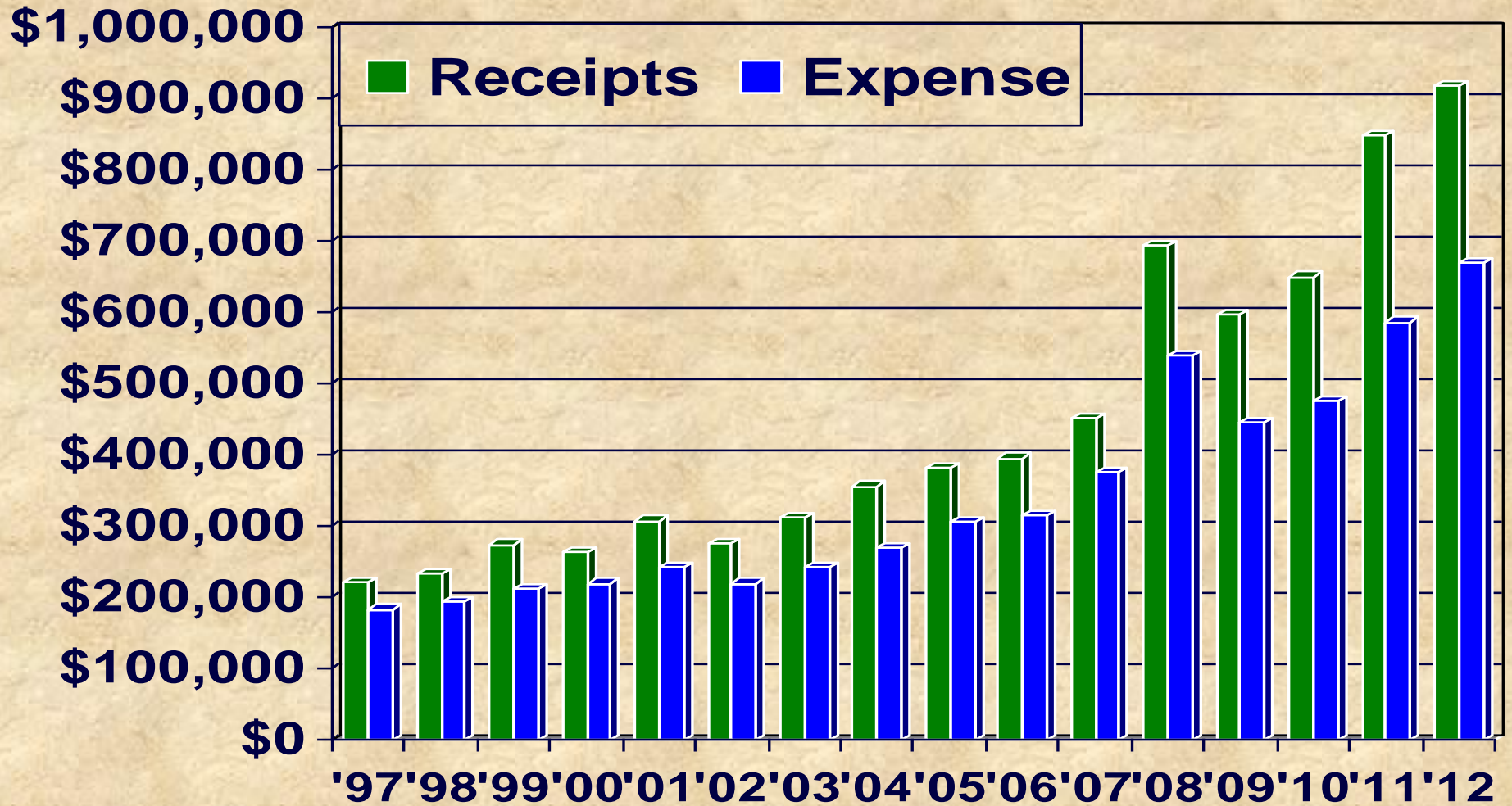


# Where was the money spent ?

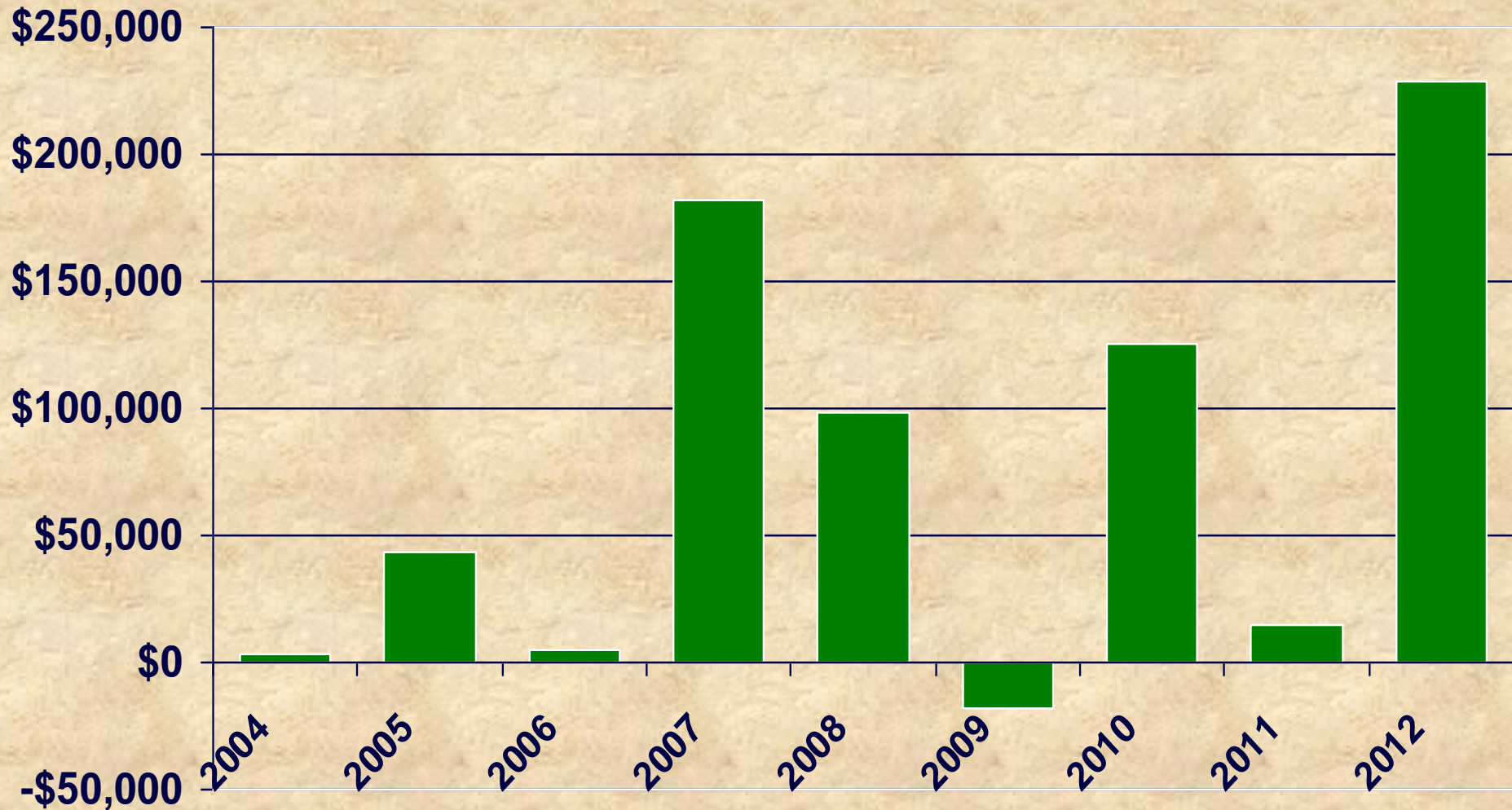
## Cash Expenses of \$668,792 in 2012



# Gross Cash Income and Cash Expenses



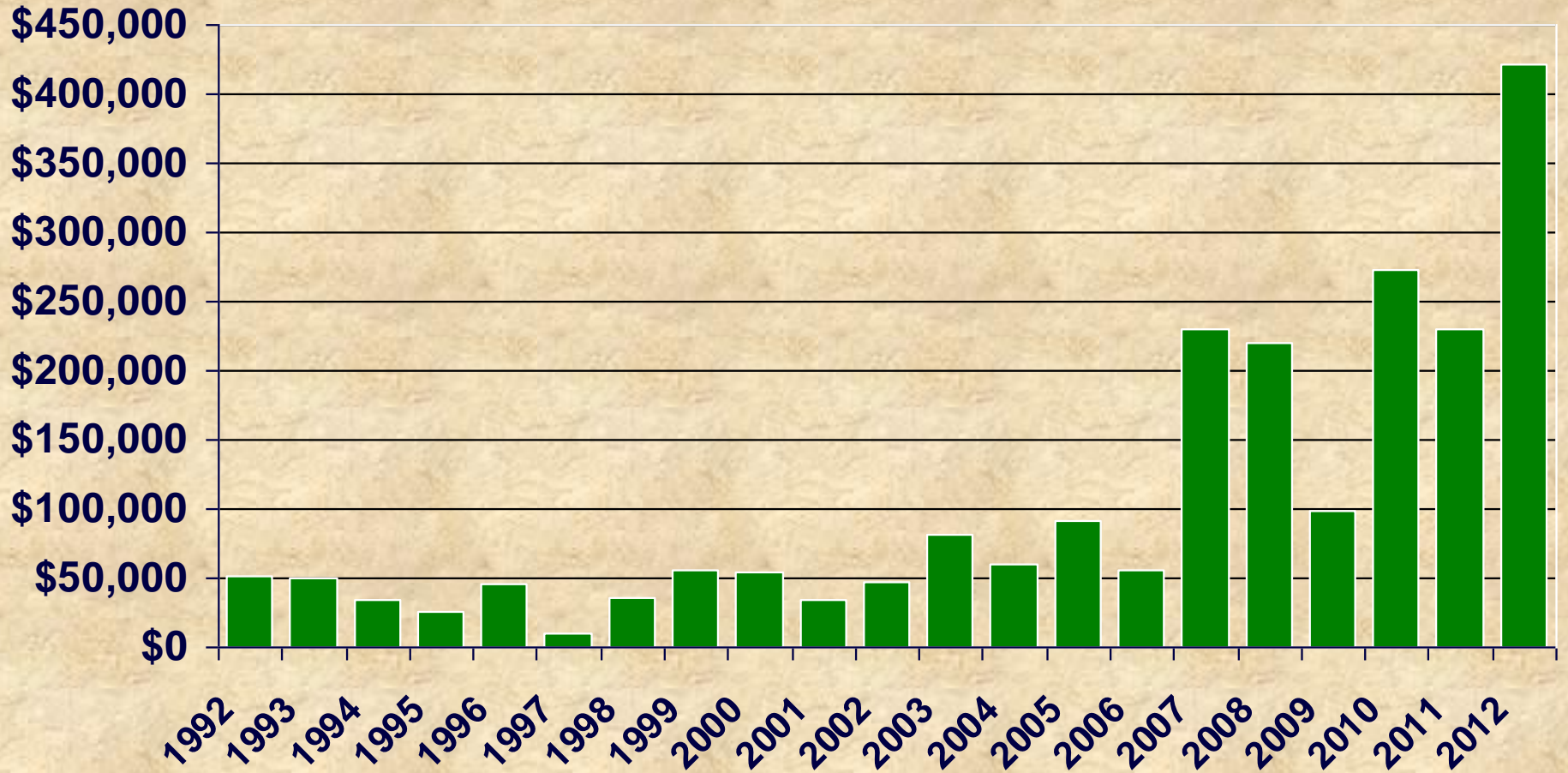
# Total Inventory Change per farm, Region 3



# Net Farm Income

- This is the net cash farm income after being adjusted first for inventory change and then for depreciation.
- This is the calculated profit for the year
- If more money than indicated on net farm income is spent on family living, personal taxes, and new investments, it must be taken from inventory sales, the capital replacement dollars, new borrowings, or from off farm income. It is also calculated under the cost balance sheet to avoid the effects of inflation or deflation of asset values.

# Average Net Farm Income



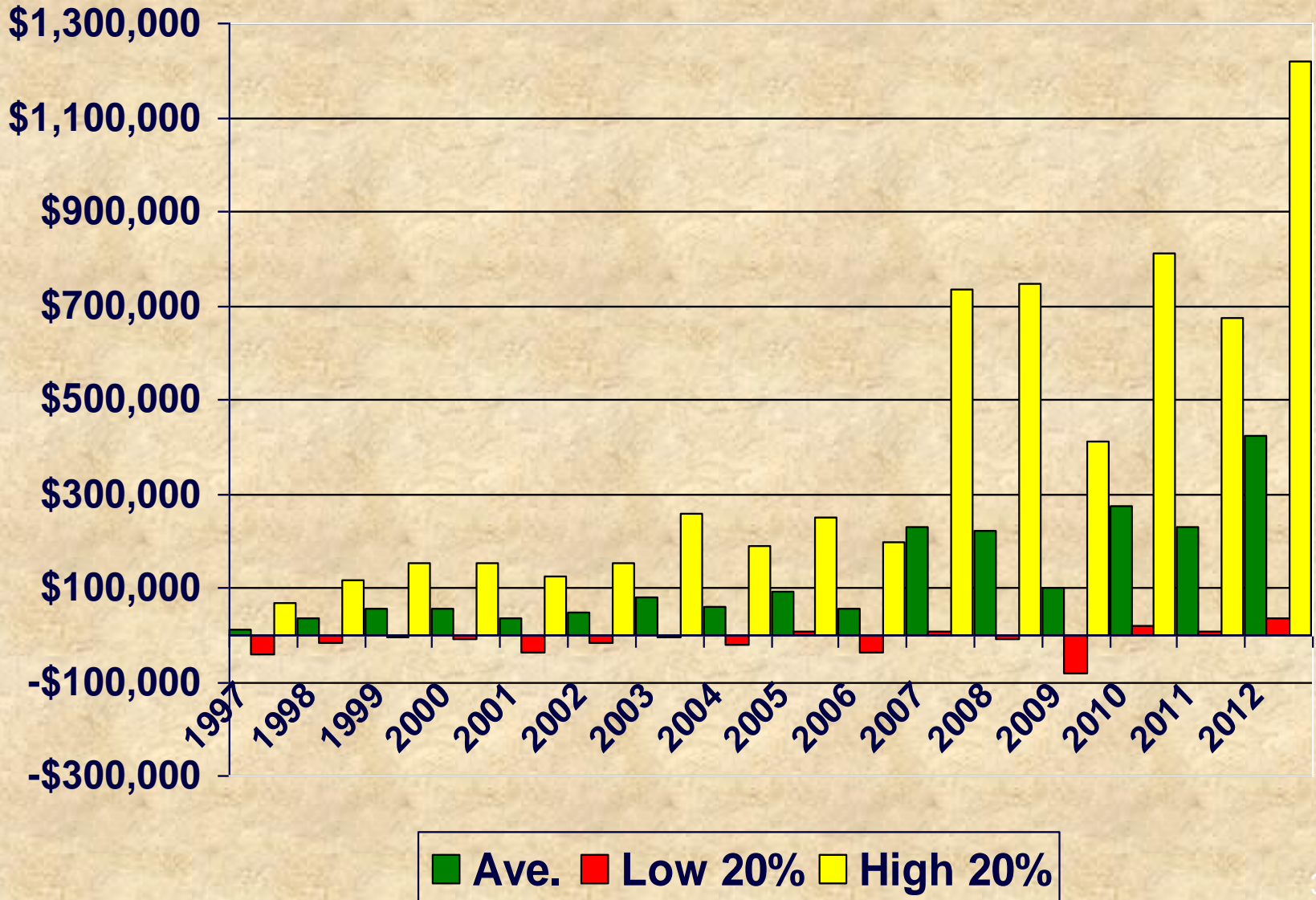
# Net Farm Income For Region III

- **Net farm income for farms in Region III averaged \$421,735. (Increased 83% from 2011)**
- **Net farm income for the low profit 20% of the farms averaged \$33,841 (up \$24,771 from 2011)**
- **Net farm income for the high profit 20% of the farms averaged \$1,218,689 (increased by \$543,303 or 80% compared to 2011)**

# **Profitability Based on Crop Acres Only, including cash crop lands & haylands.**

- **Average Profit, based on 1,914 crop acres was \$220.15 per acre.**
- **Low Profit, based on 417 acres was \$81.15 per acre.**
- **Mid Profit, (40%-60%) \$243,239 from 1,392 acres was a profit of \$181.25 per acre.**
- **High Profit, based on 4,729 acres was \$257.70 per acre.**

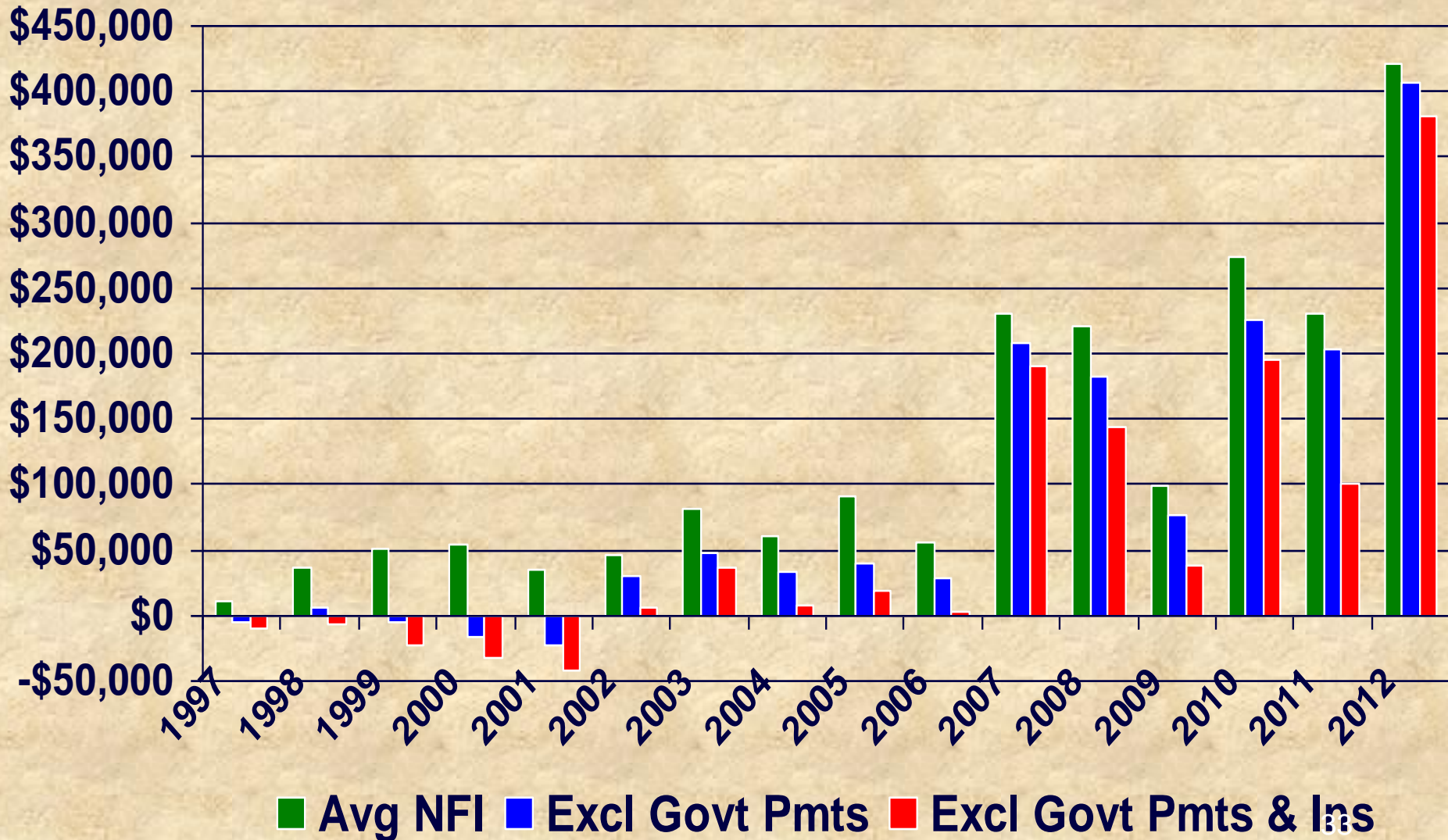
# 2012 Net Farm Income by Profitability Groups





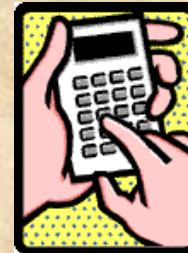
# Average Net Farm Income

## *ND Farm Business Management, Region 3*



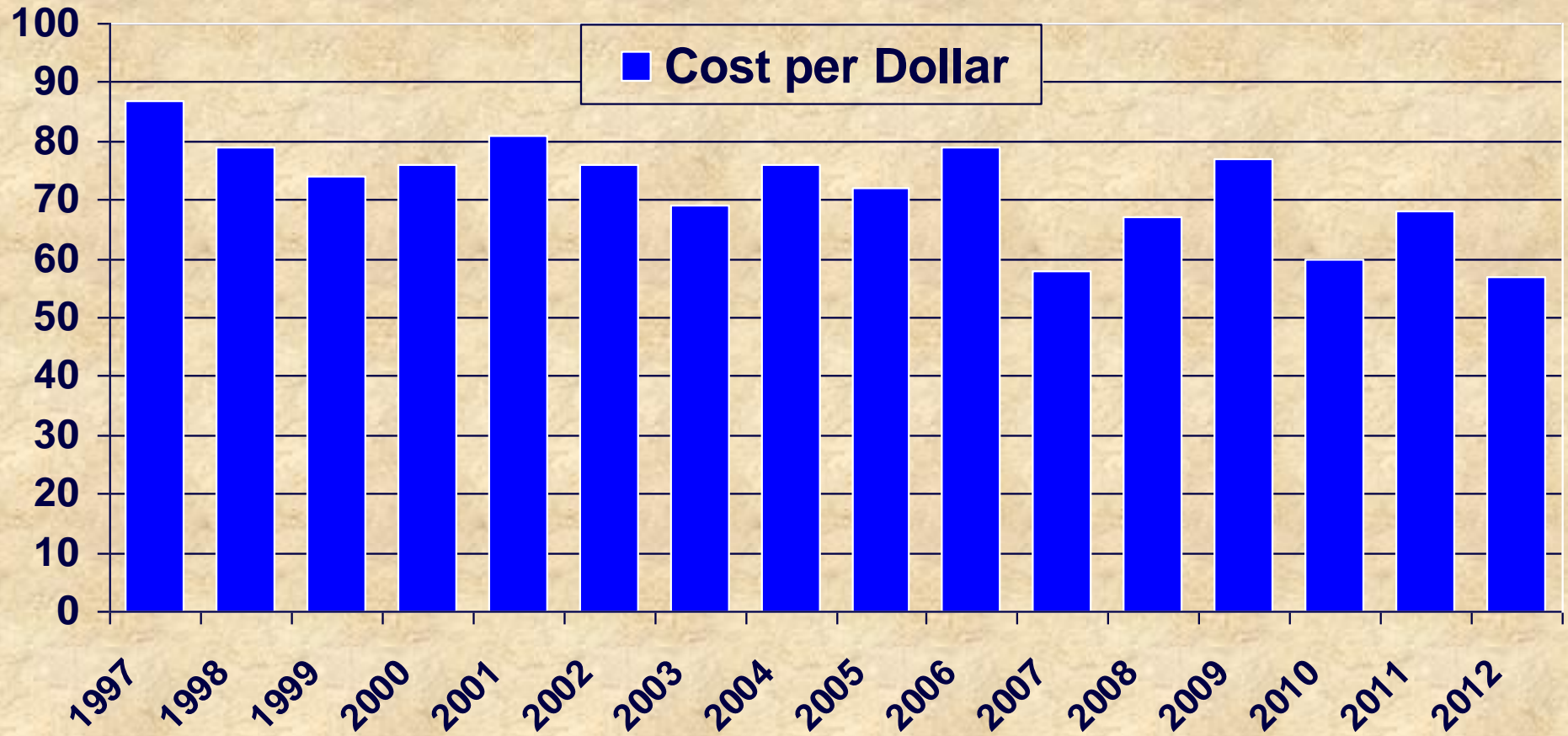
# Cost to produce \$1.00 of Accrued Income

- This year it cost an average Region 3 farmer \$.57 (accrual) to produce a dollar's worth of income, compared to \$.68 last year. (2012 Oper. Expense \$.546 + Interest of \$.026)
- High profit farms created a dollar of income for \$.53 down from \$.63 cents in 2011.
- Low profit farms created a dollar of income for \$.74 of expenses, down from \$.92 in 2011.

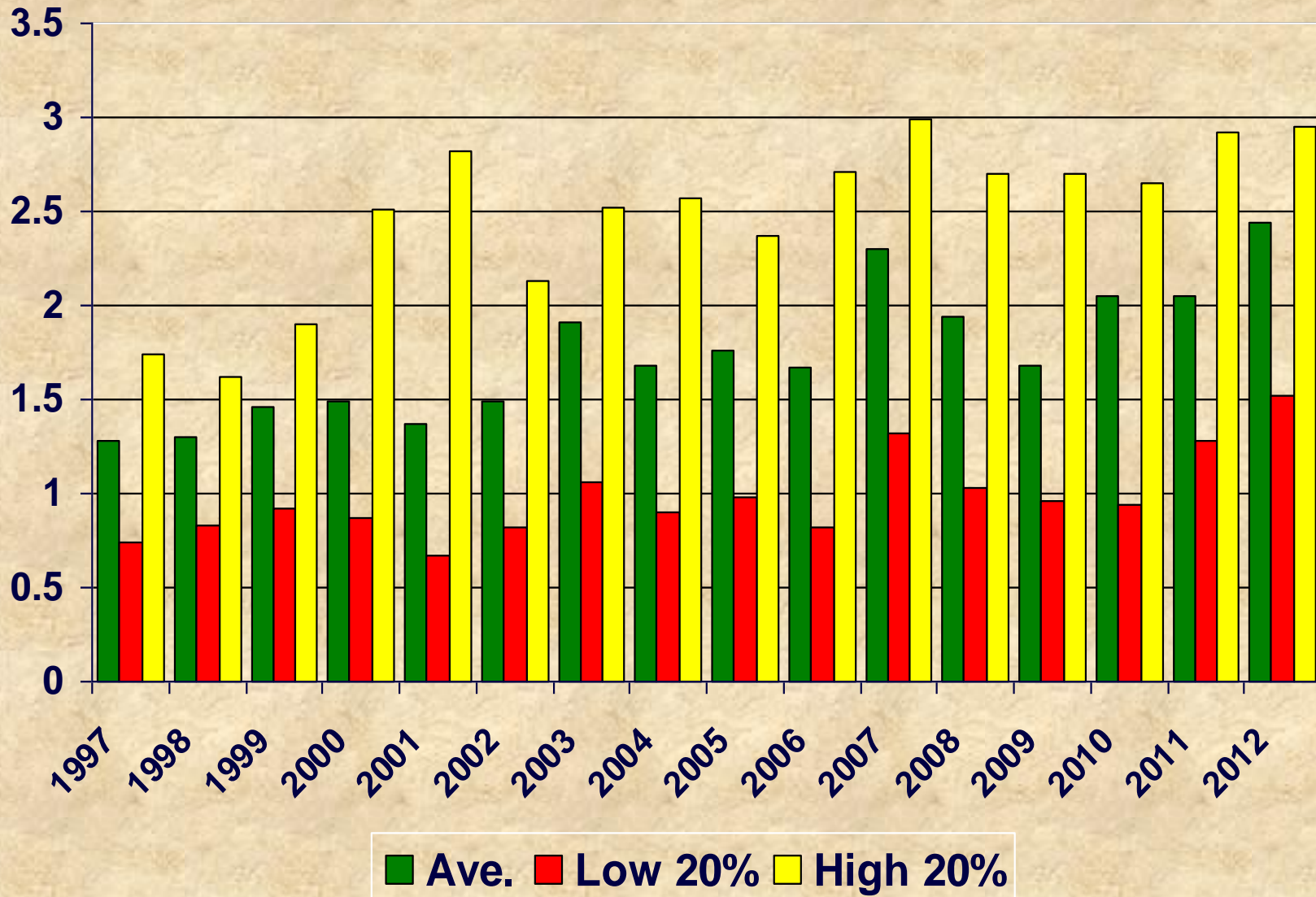


**These figures do not include depreciation \$.04-\$0.06**

# Average Cost per Dollar of Income

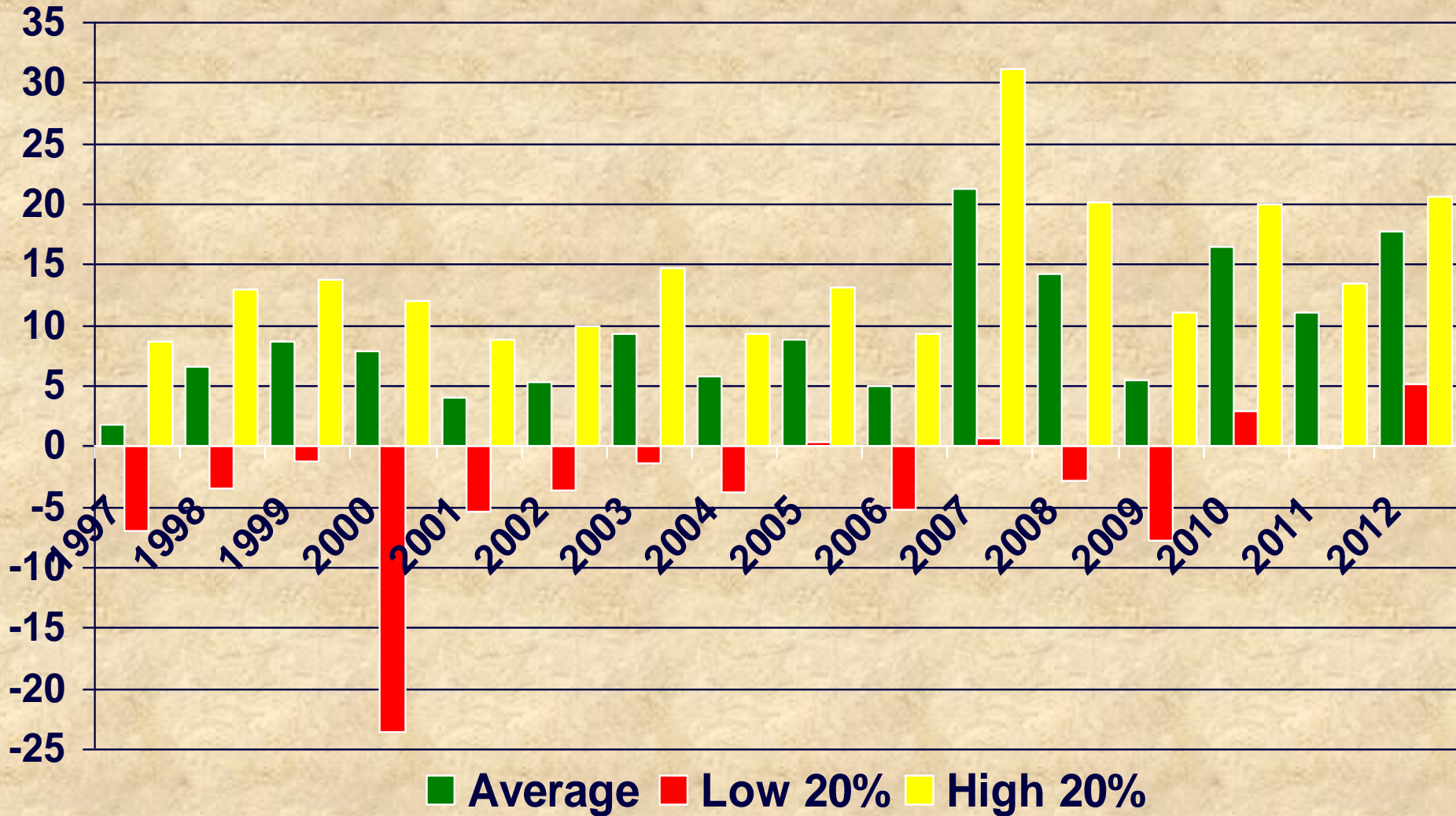


# Current Ratio by Profitability Group, Current assets divided by Current Liabilities

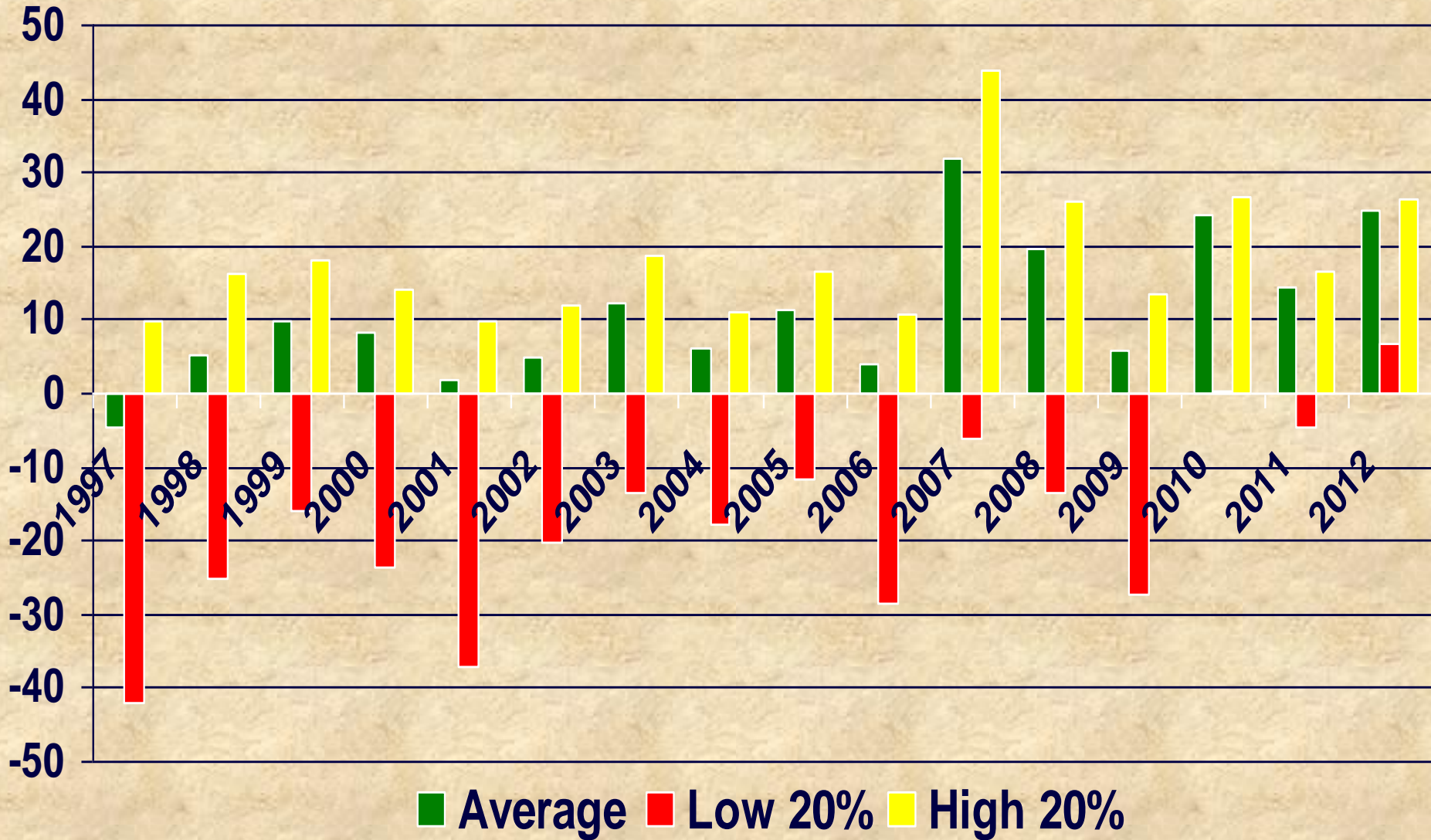


# % Return on Assets, Cost Basis

*ND Farm Business Management, Region 3*



# % Return on Equity, Cost Basis



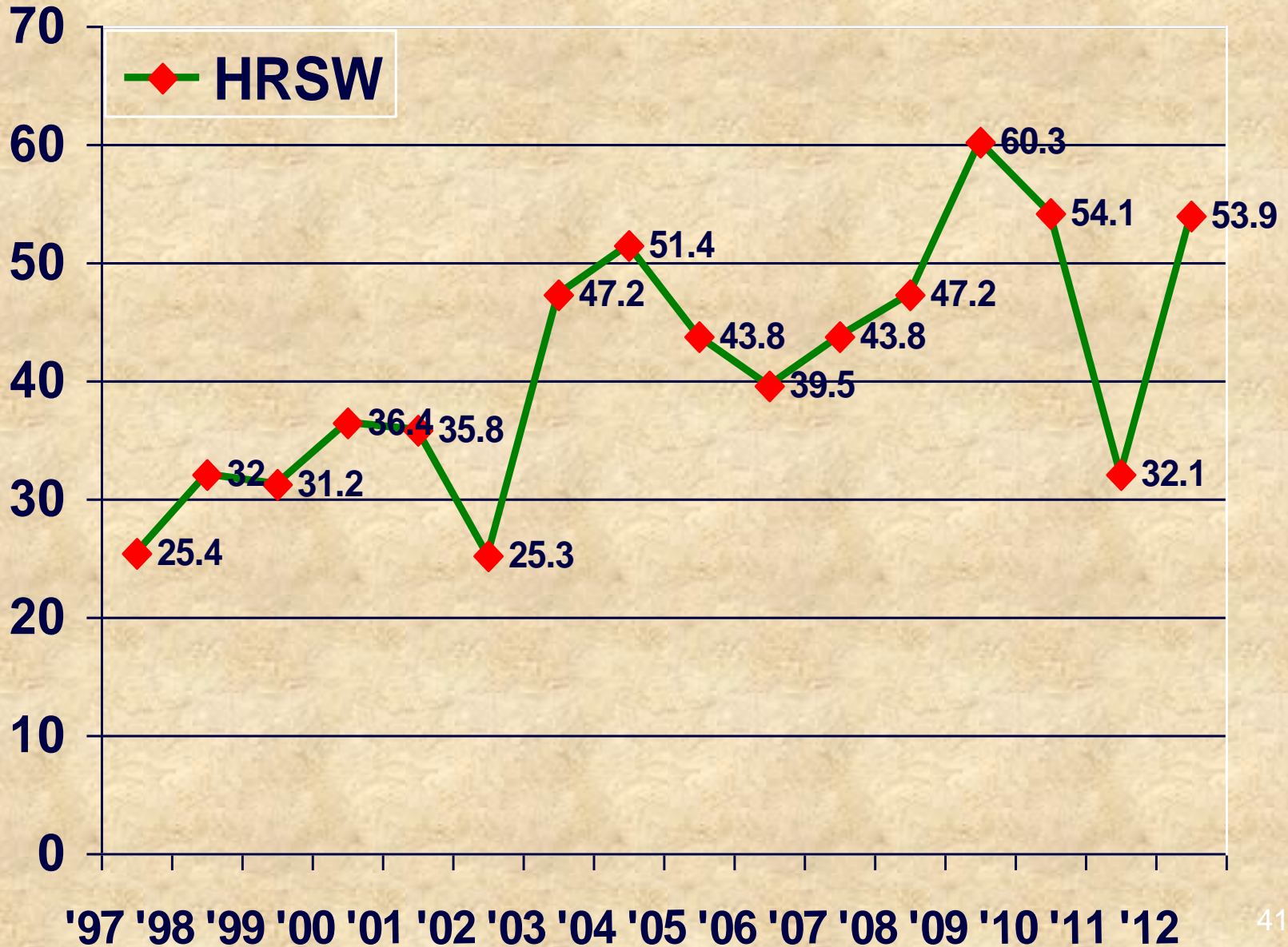
# **Crop Yields, Costs and Returns for 2012**

# Net Return for Crops

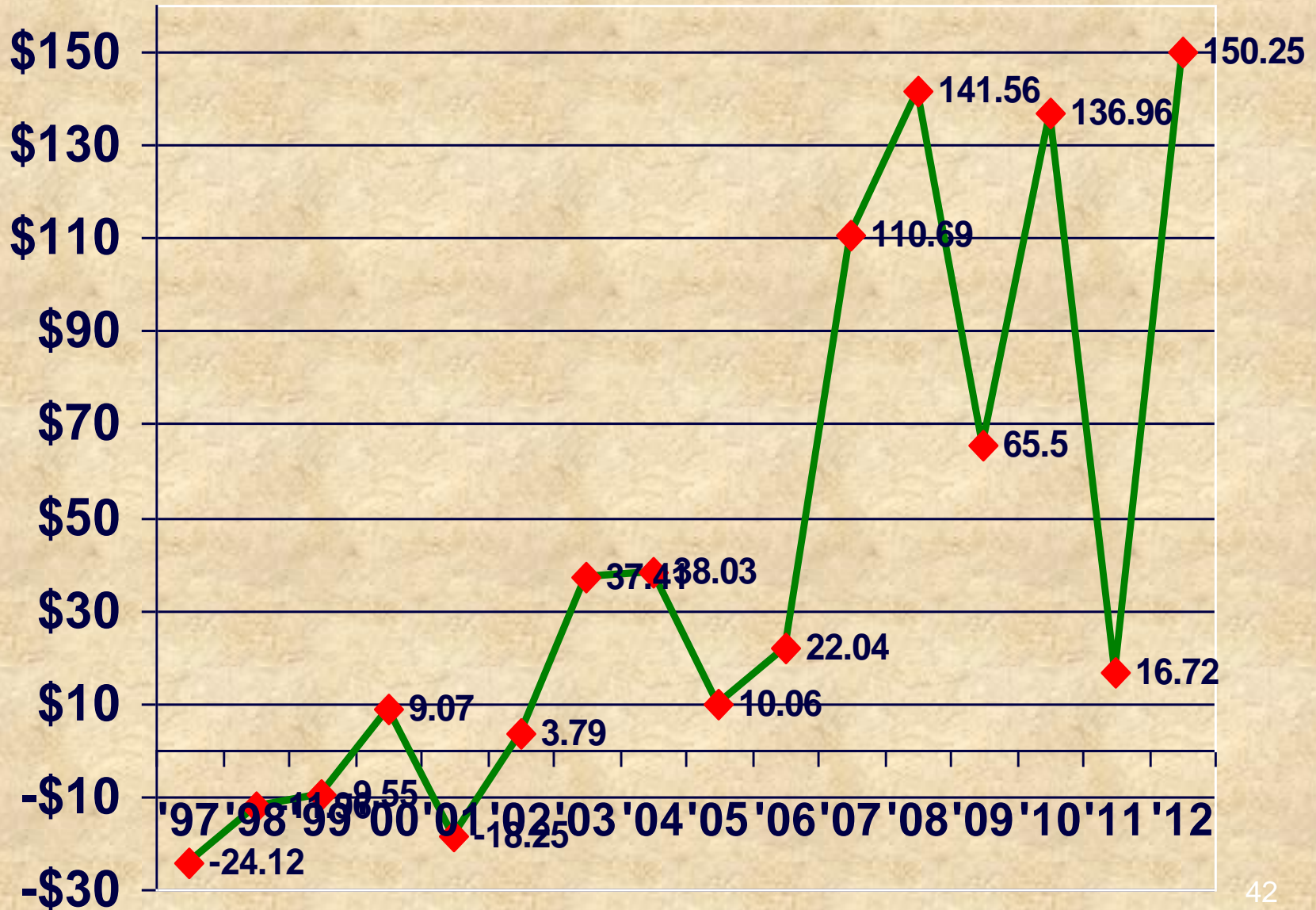
- Does not include Direct or Counter-Cyclical Government Payments.
- Does include LDP and Insurance which shows up in the price of the commodity and the other crop income



# HRSW Average Yields, Region 3



# HRSW Net Return per Acre on Cash Rented Land, Avg. Rent \$56.52



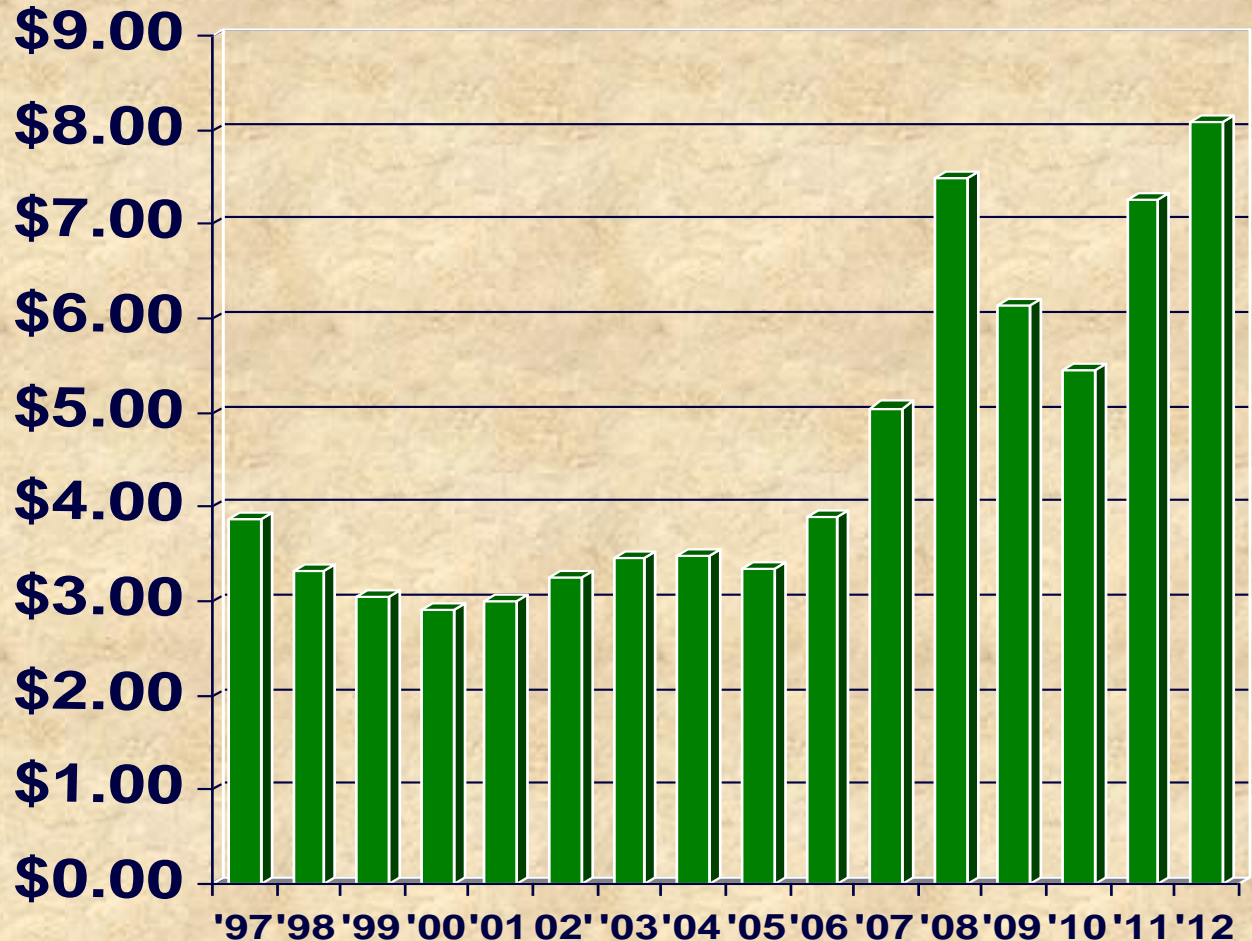
# Spring Wheat Net Return/Acre on Cash Rented Land

● Average	\$ 150.25	at 55.0 Bu.
High 20%	\$ 227.22	at 65.2 Bu.
Low 20%	- \$ -1.47	at 36.4 Bu.

# Average Price Received, Cash Sales

## Spring Wheat

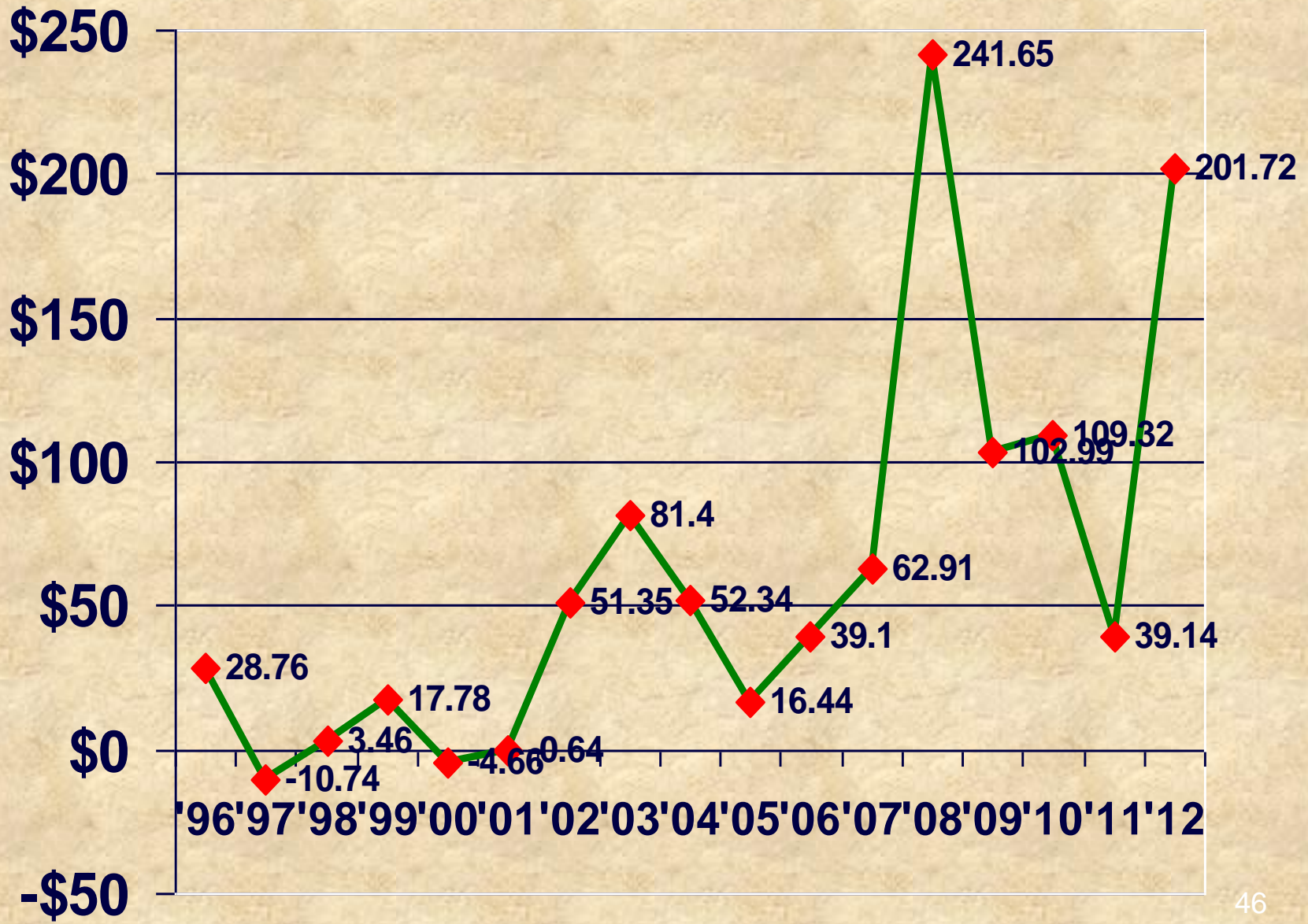
● 1997	3.87
● 1998	3.33
● 1999	3.05
● 2000	2.90
● 2001	2.99
● 2002	3.26
● 2003	3.46
● 2004	3.48
● 2005	3.34
● 2006	3.89
● 2007	5.05
● 2008	7.48
● 2009	6.14
● 2010	5.45
● 2011	7.27
● 2012	8.08



# Barley Average Yields, Region 3



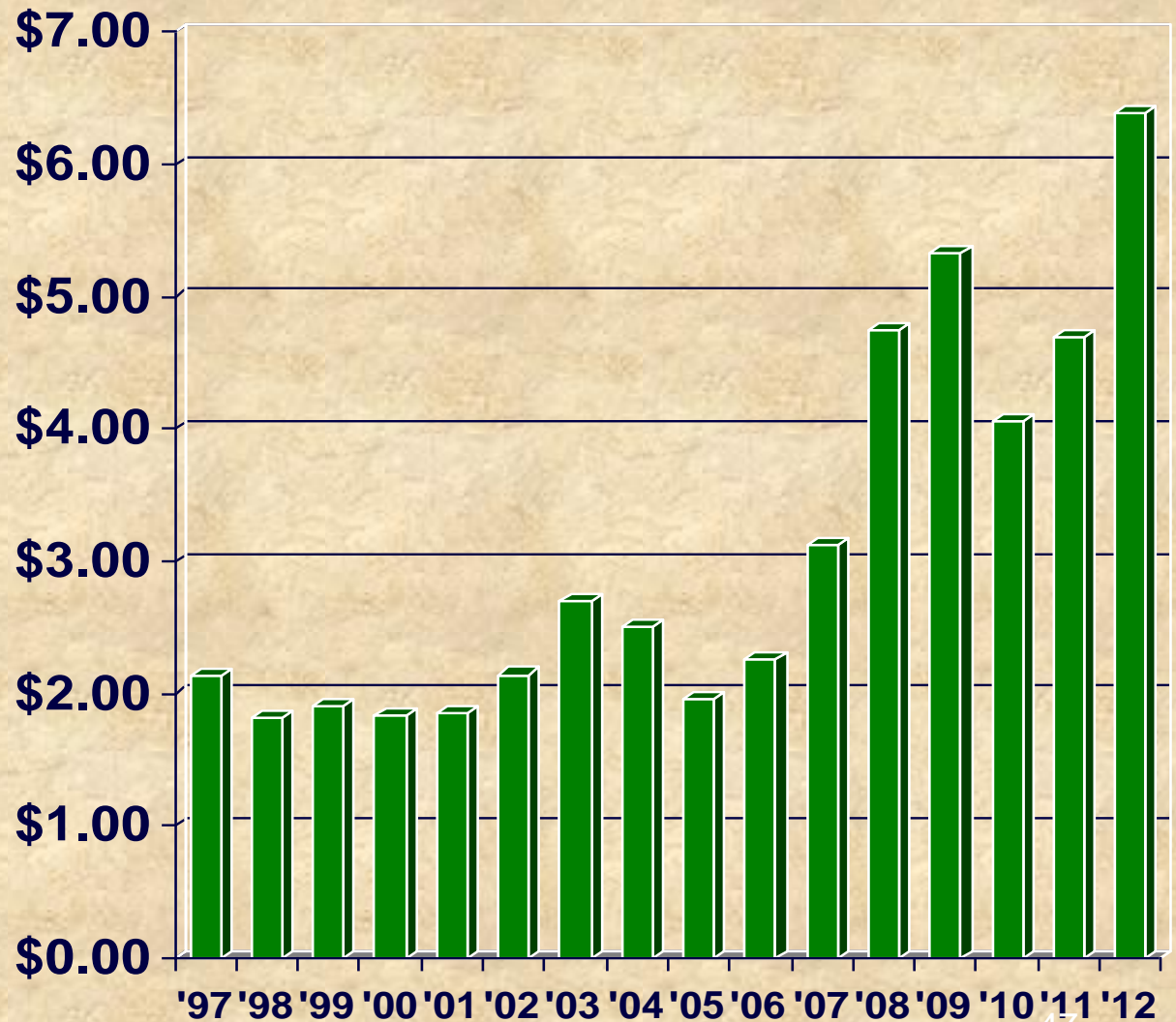
# Barley Net Return per Acre on Cash Rented Land, Avg. Rent \$51.93



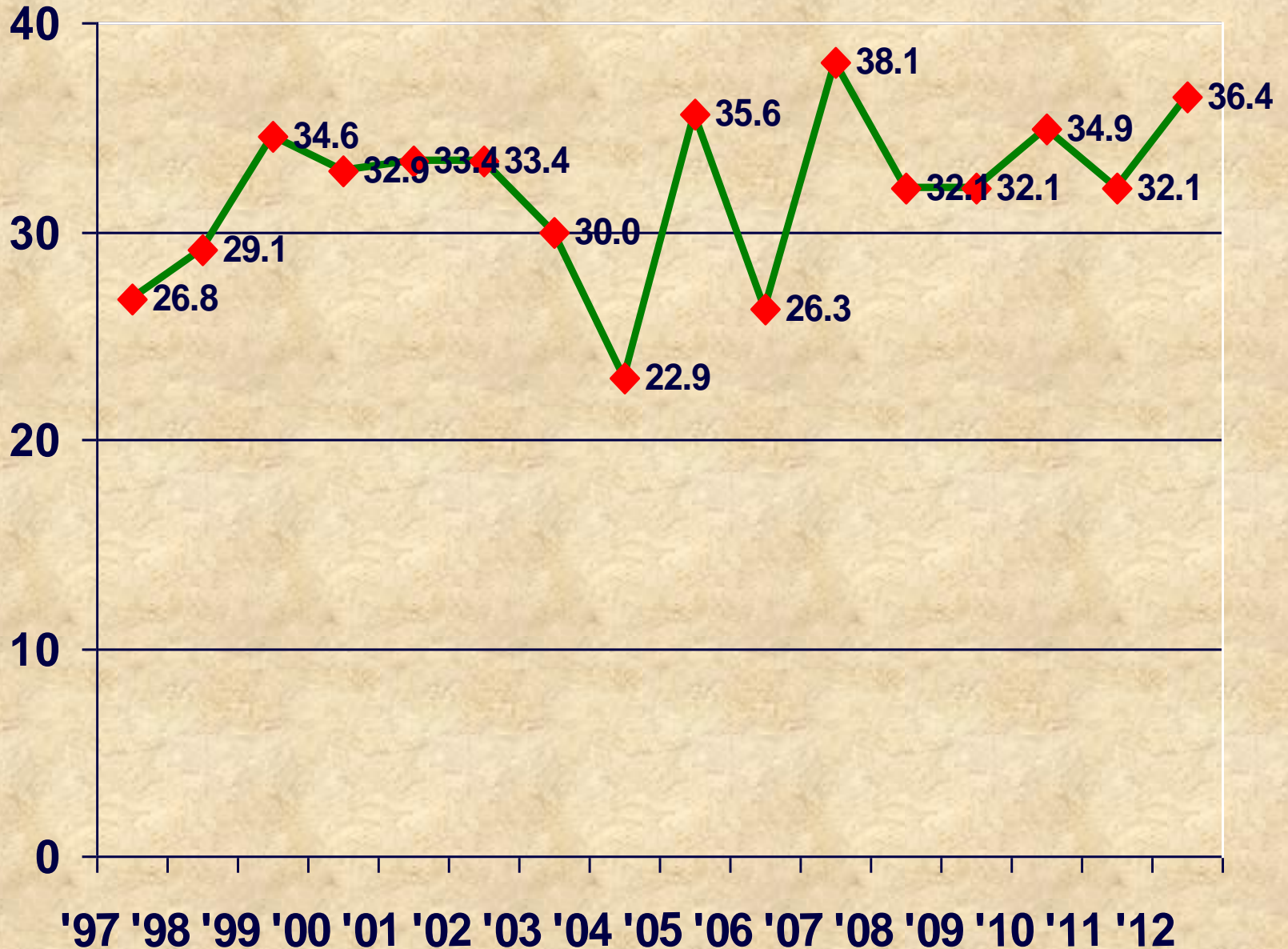
# Average Received for Cash Sales

## Barley

● 1997	2.13
● 1998	1.82
● 1999	1.91
● 2000	1.83
● 2001	1.85
● 2002	2.14
● 2003	2.70
● 2004	2.50
● 2005	1.95
● 2006	2.26
● 2007	3.12
● 2008	4.75
● 2009	5.32
● 2010	4.05
● 2011	4.69
● 2012	6.39



# Soybean Average Yields, Region 3





# Soybean Net Return per Acre on Cash Rented Land, Avg. Rent \$67.66

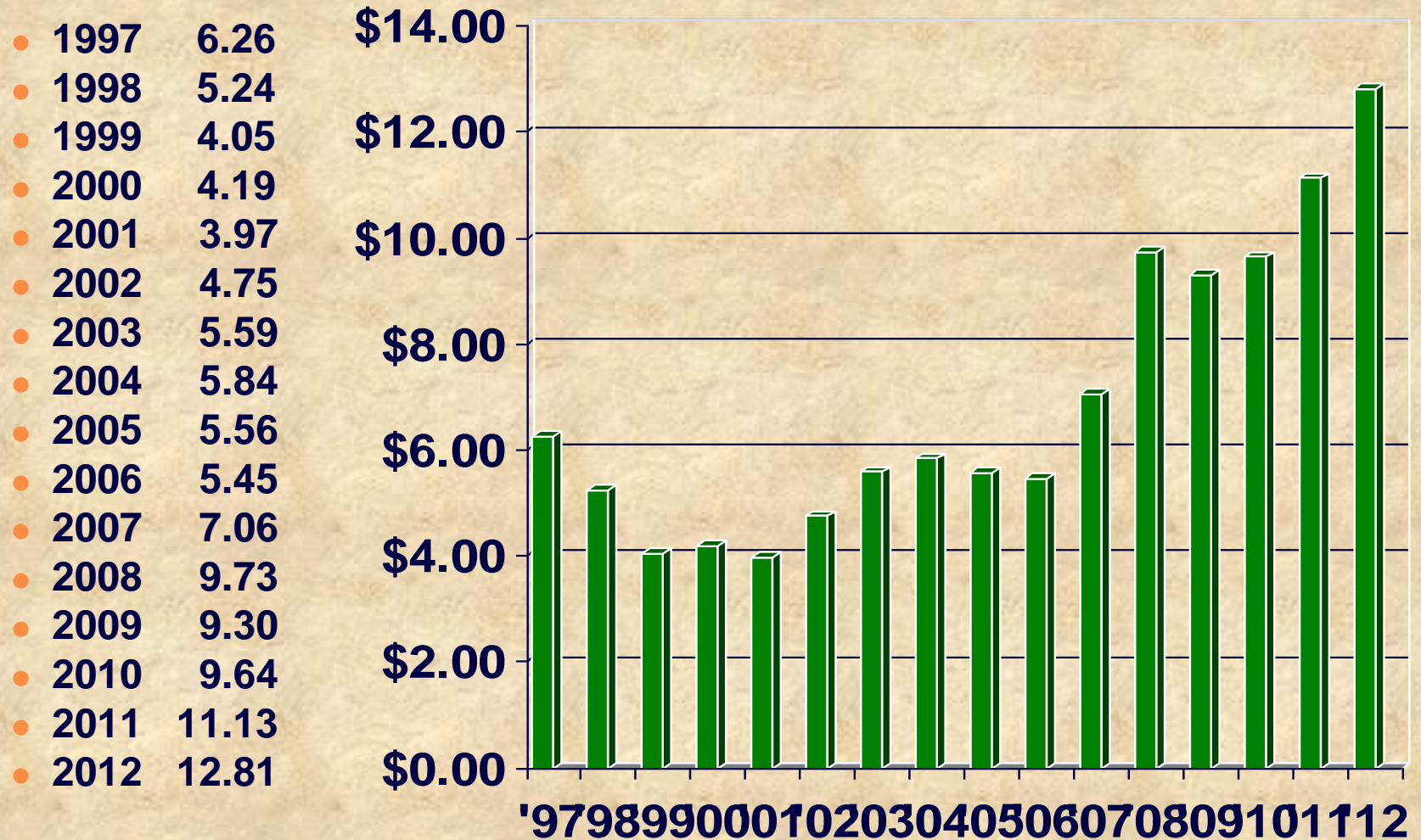


# **Soybeans Net Return per Acre on Cash Rented Land**

Average	\$ 217.76 at 36.3 Bu.
High 20%	\$ 330.74 at 41.4 Bu.
Low 20%	\$ 93.81 at 29.4 Bu.

# Average Price Received for Cash Sales

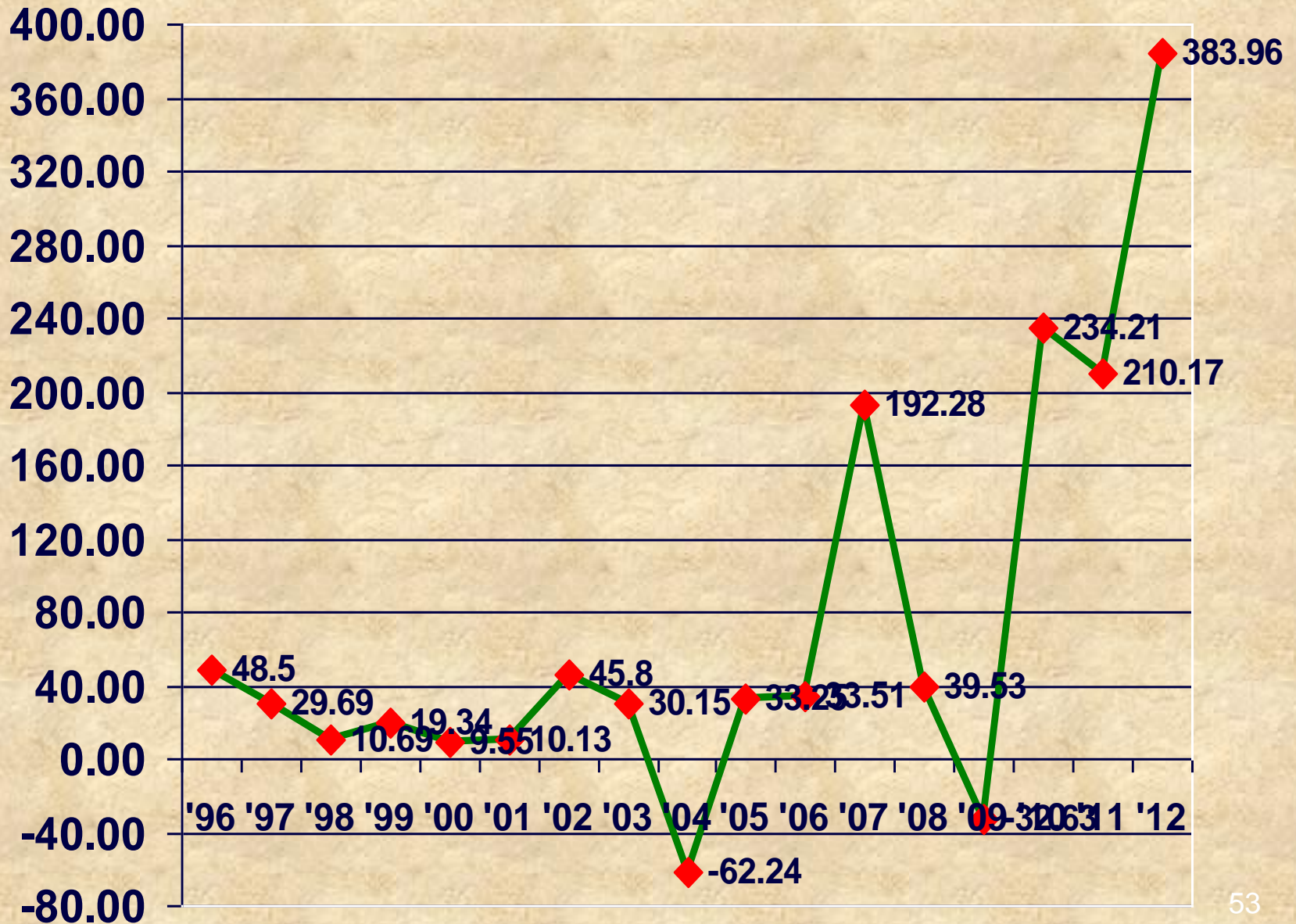
## Soybeans



# Corn Average Yields, Region 3



# Corn Net Return per Acre on Cash Rented Land, Avg. Rent \$65.09



# Corn Net Return/Acre on Cash Rented Land

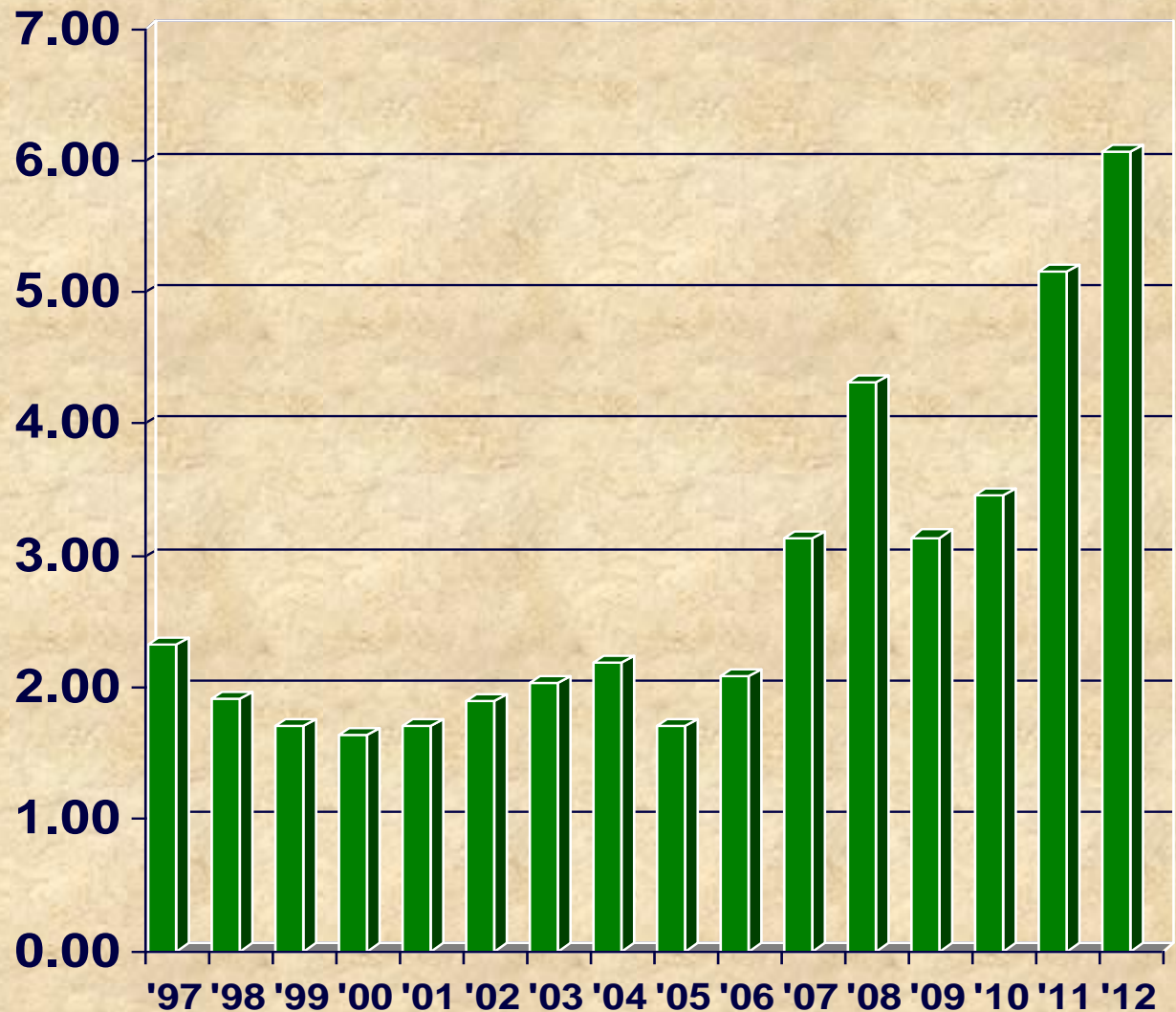
<b>Average</b>	<b>\$ 383.96</b>	<b>at 130.8 Bu.</b>
<b>Low 20%</b>	<b>\$ 111.32</b>	<b>at 78.6 Bu.</b>
<b>High 20%</b>	<b>\$ 592.61</b>	<b>at 156.9 Bu.</b>



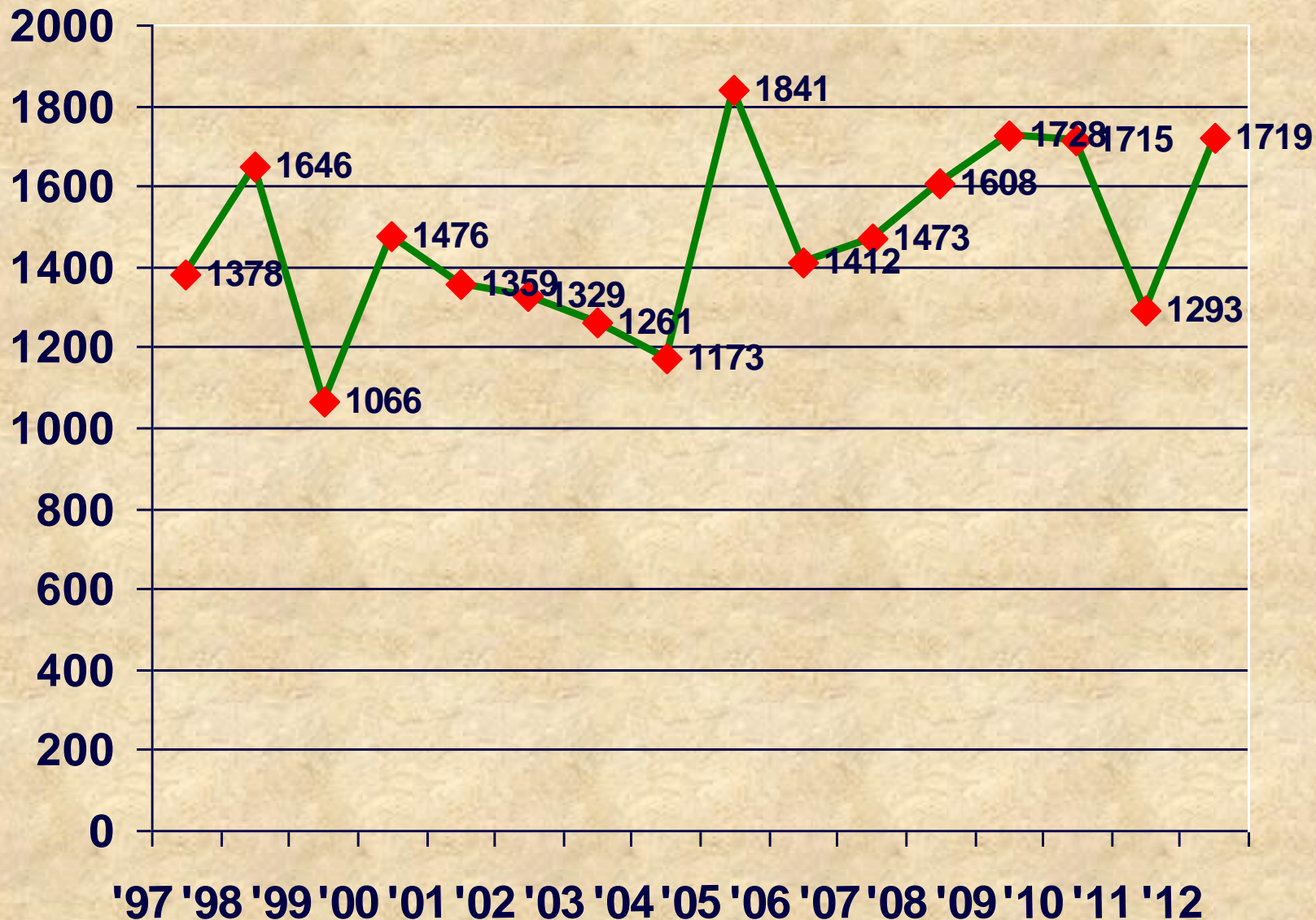
# Average Price Received Cash Sales

**Corn**

● 1997	2.33
● 1998	1.91
● 1999	1.70
● 2000	1.64
● 2001	1.70
● 2002	1.90
● 2003	2.03
● 2004	2.18
● 2005	1.70
● 2006	2.09
● 2007	3.13
● 2008	4.31
● 2009	3.14
● 2010	3.46
● 2011	5.15
● 2012	6.06

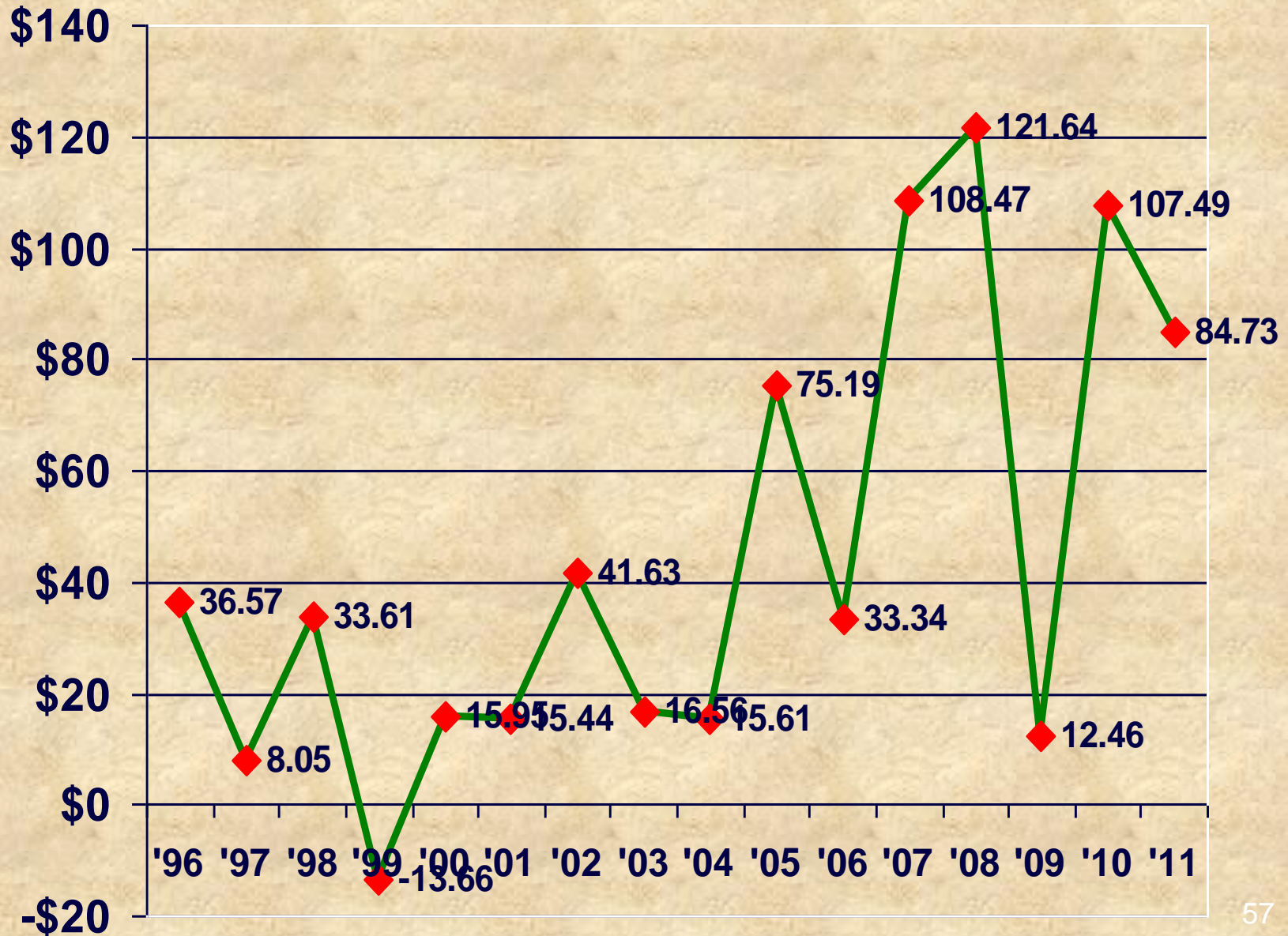


# Oil Sunflower Average Yields, Region 3





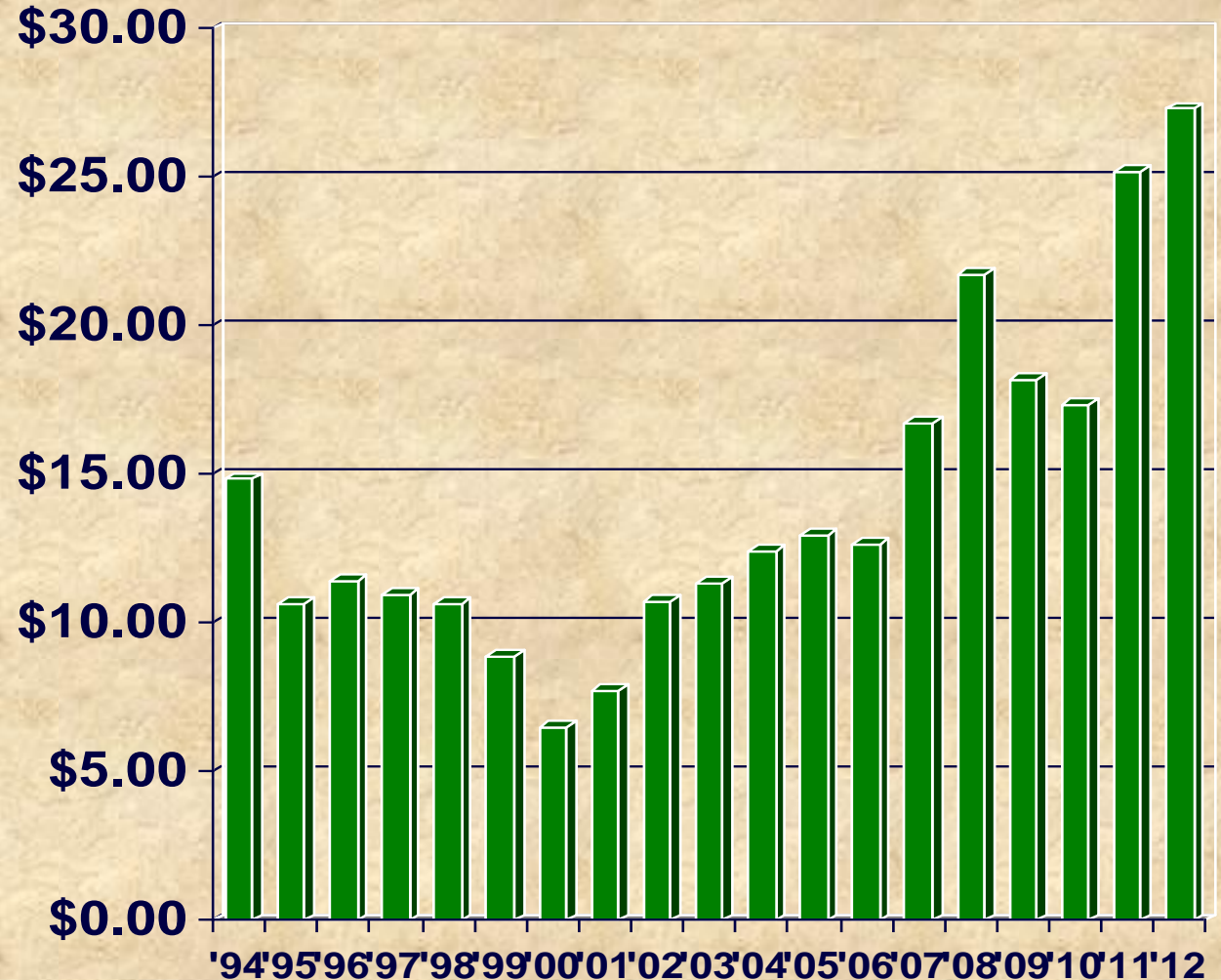
# Oil Sunflower Net Return per Acre on Cash Rented Land, Avg. Rent \$33.35



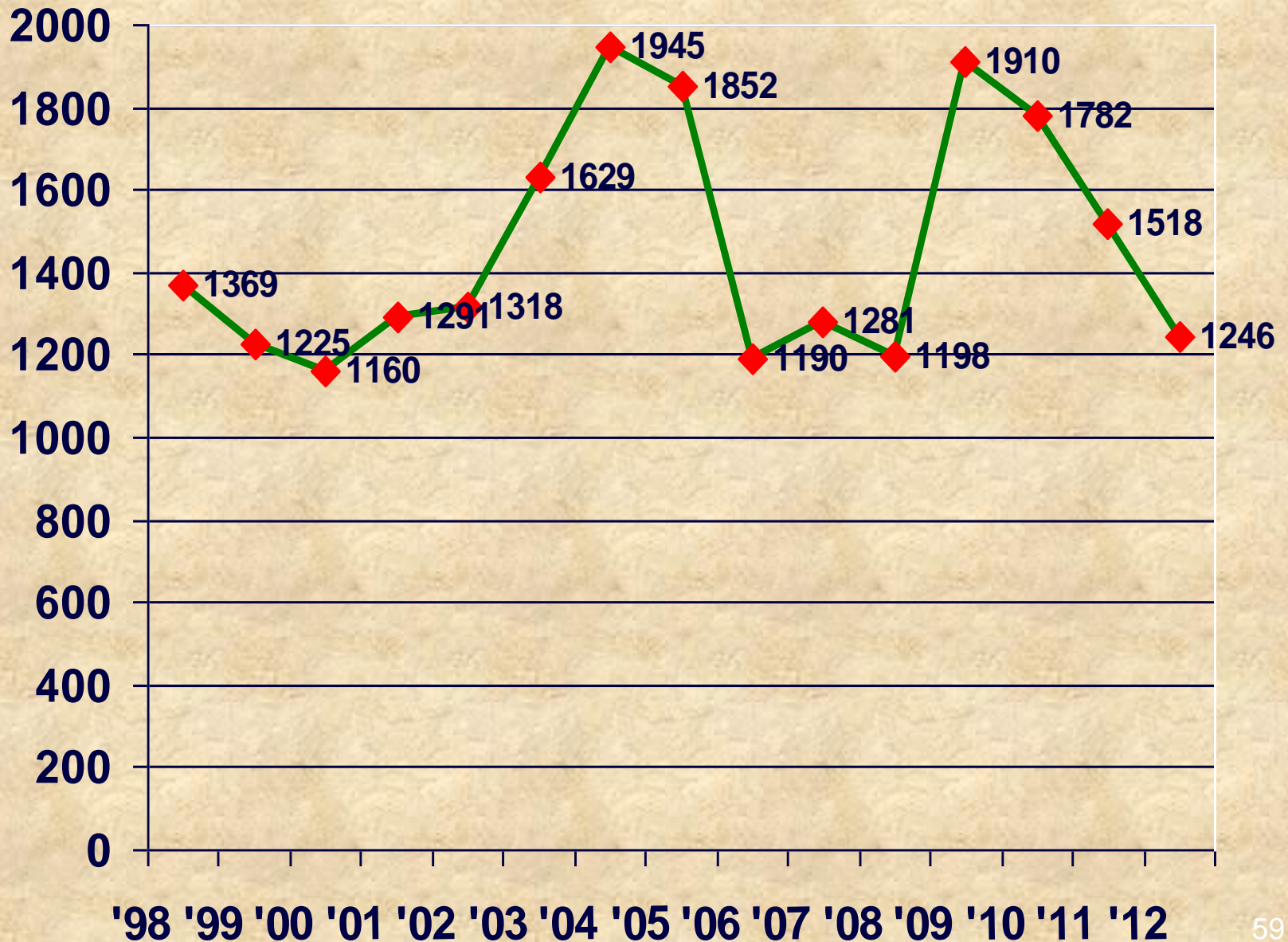
# Average Price Received Cash Sales

## Oil Sunflowers

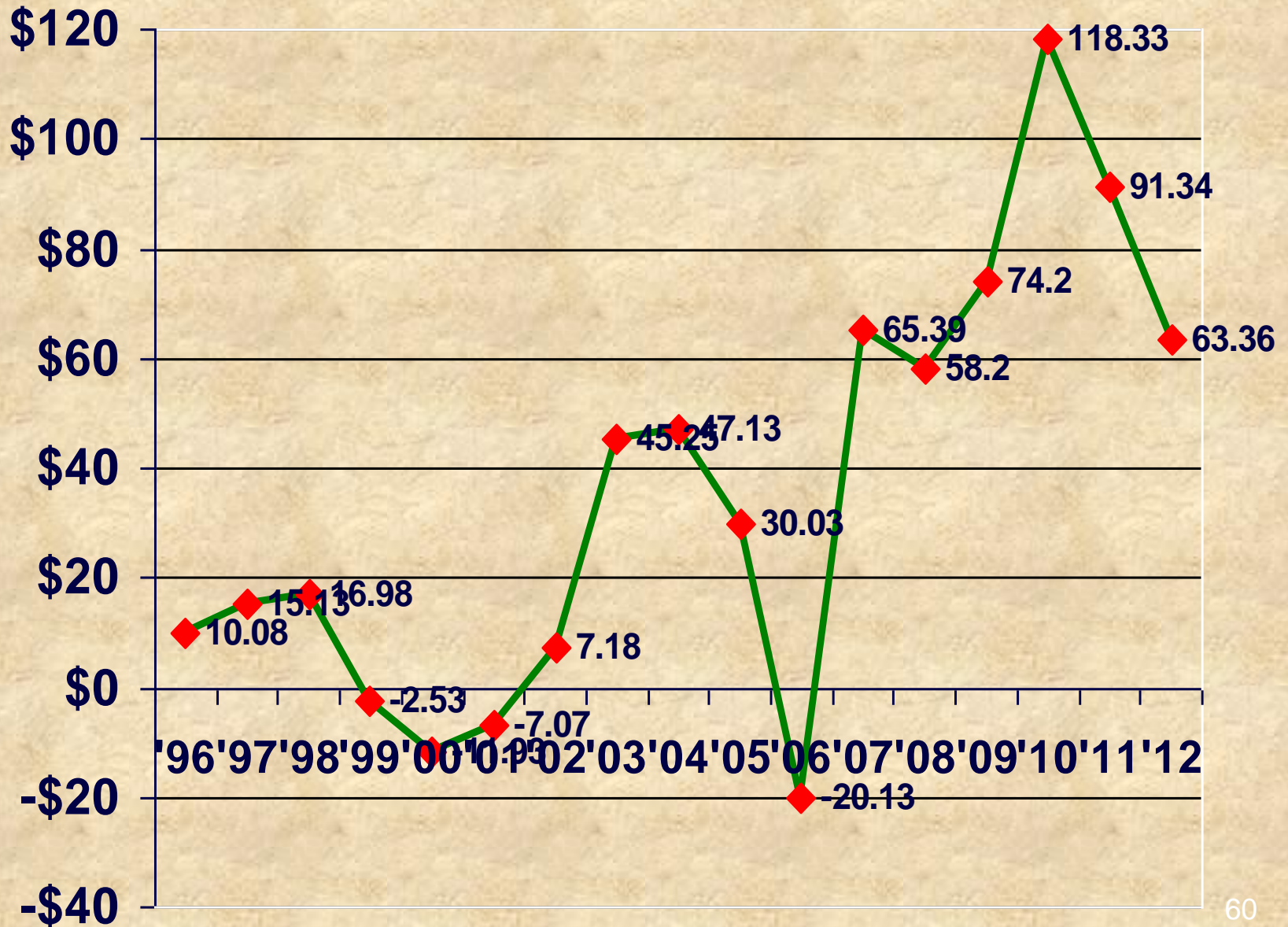
● 1997	10.94
● 1998	10.66
● 1999	8.90
● 2000	6.50
● 2001	7.73
● 2002	10.71
● 2003	11.32
● 2004	12.41
● 2005	12.94
● 2006	12.68
● 2007	16.74
● 2008	21.74
● 2009	18.18
● 2010	17.32
● 2011	25.19
● 2012	27.30



# Canola Average Yields, Region 3



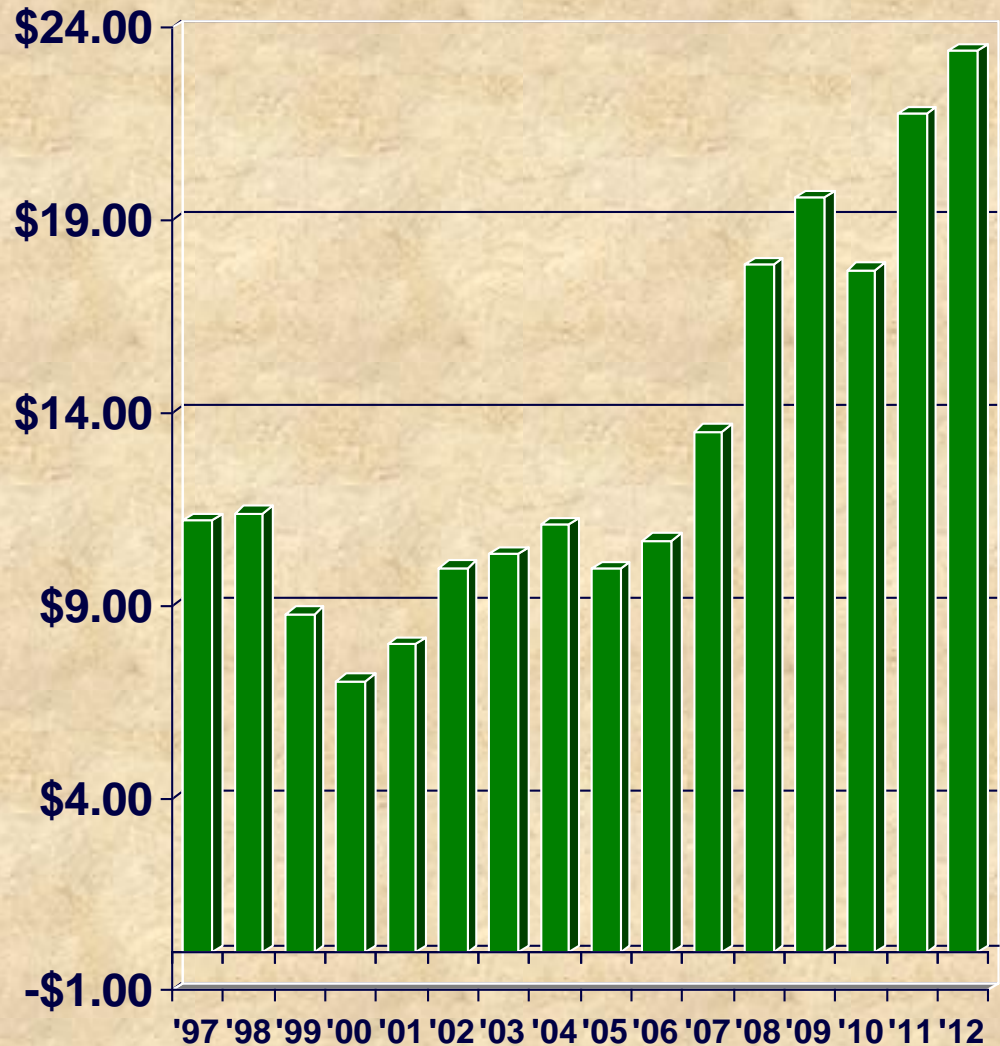
# Canola Net Return per Acre on Cash Rented Land, Avg. Rent \$50.51



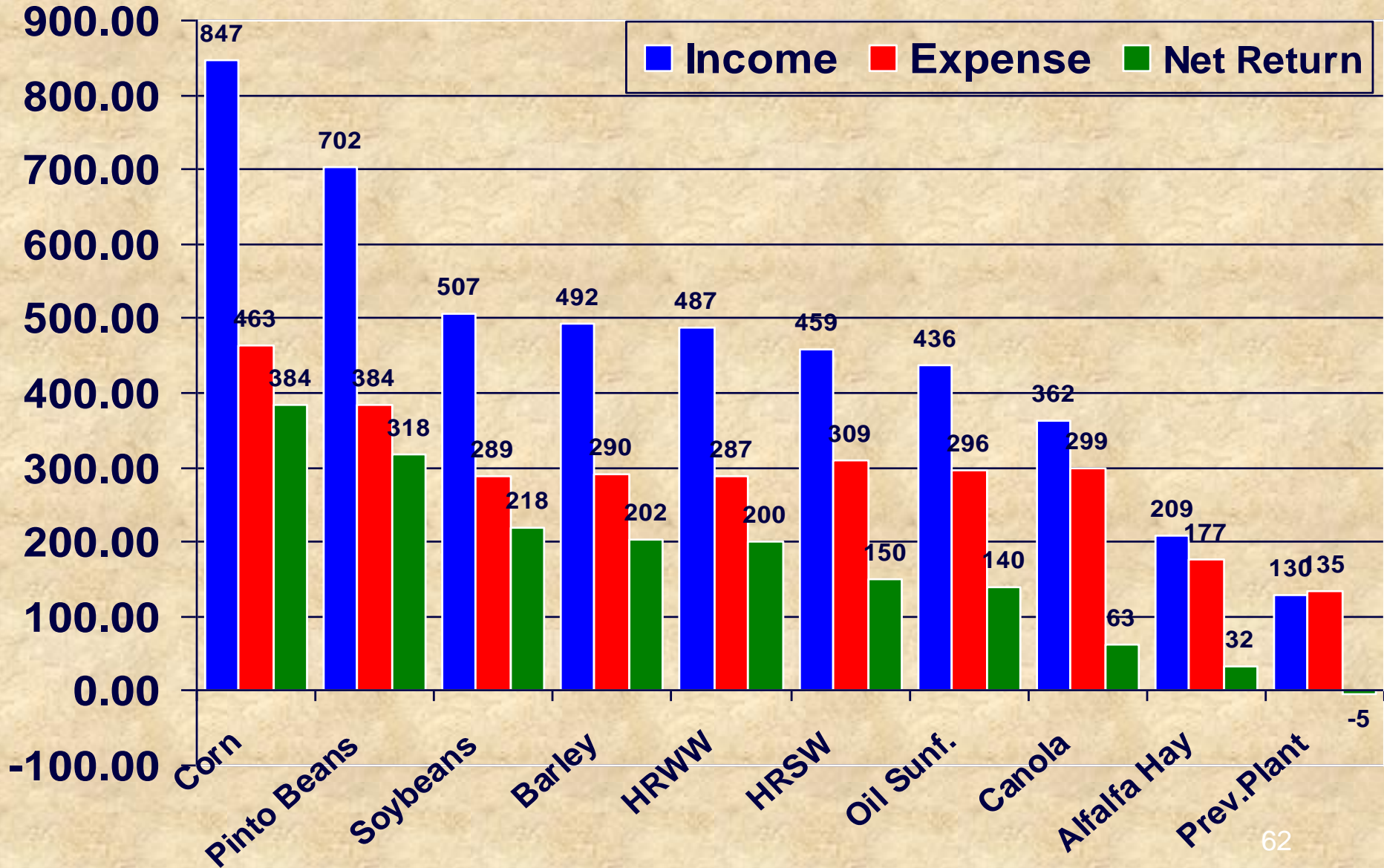
# Average Price Received Cash Sales

## Canola

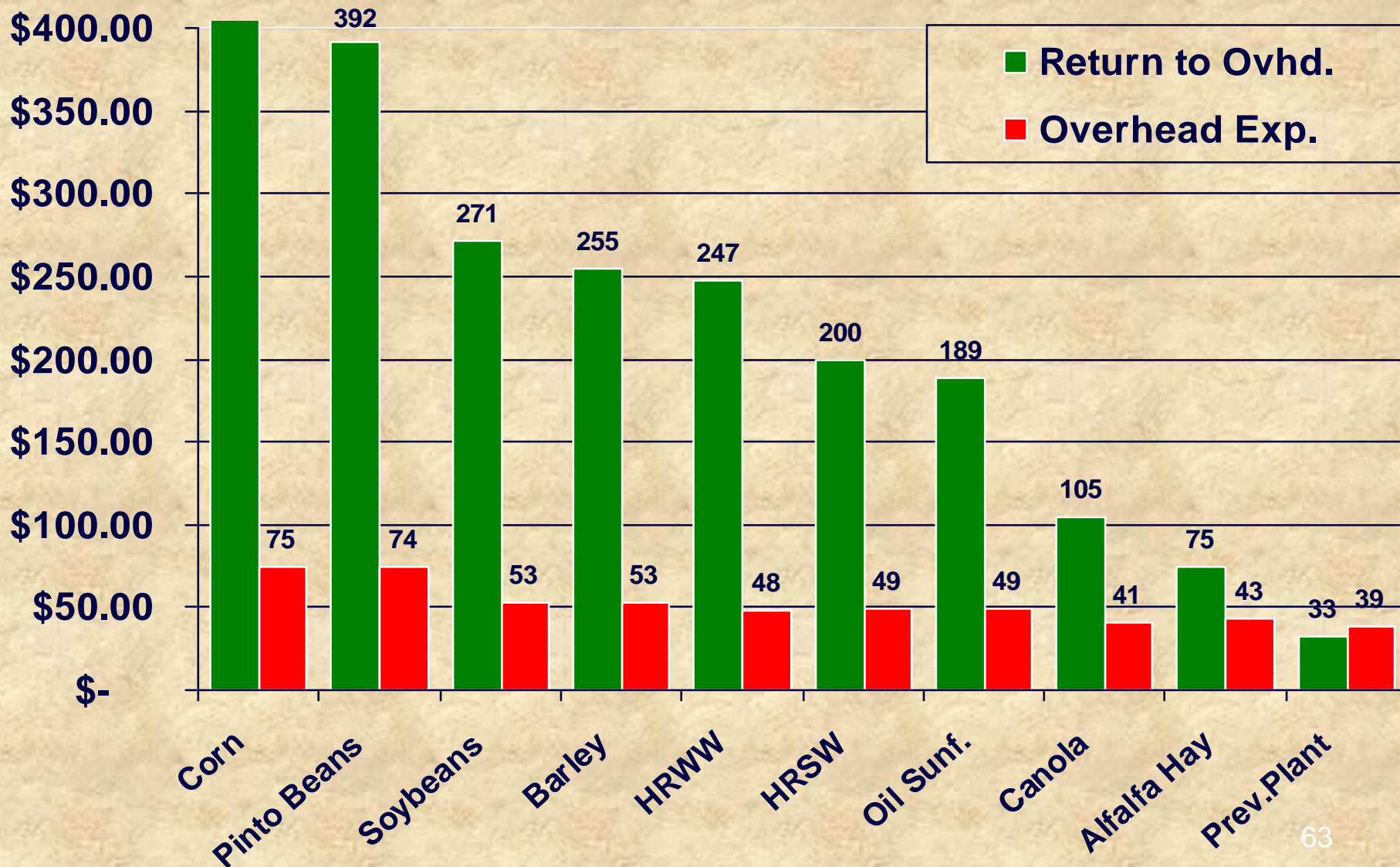
● 1997	11.20
● 1998	11.38
● 1999	8.78
● 2000	7.03
● 2001	7.98
● 2002	9.97
● 2003	10.34
● 2004	11.10
● 2005	9.95
● 2006	10.68
● 2007	13.52
● 2008	17.85
● 2009	19.57
● 2010	17.71
● 2011	21.76
● 2012	23.39



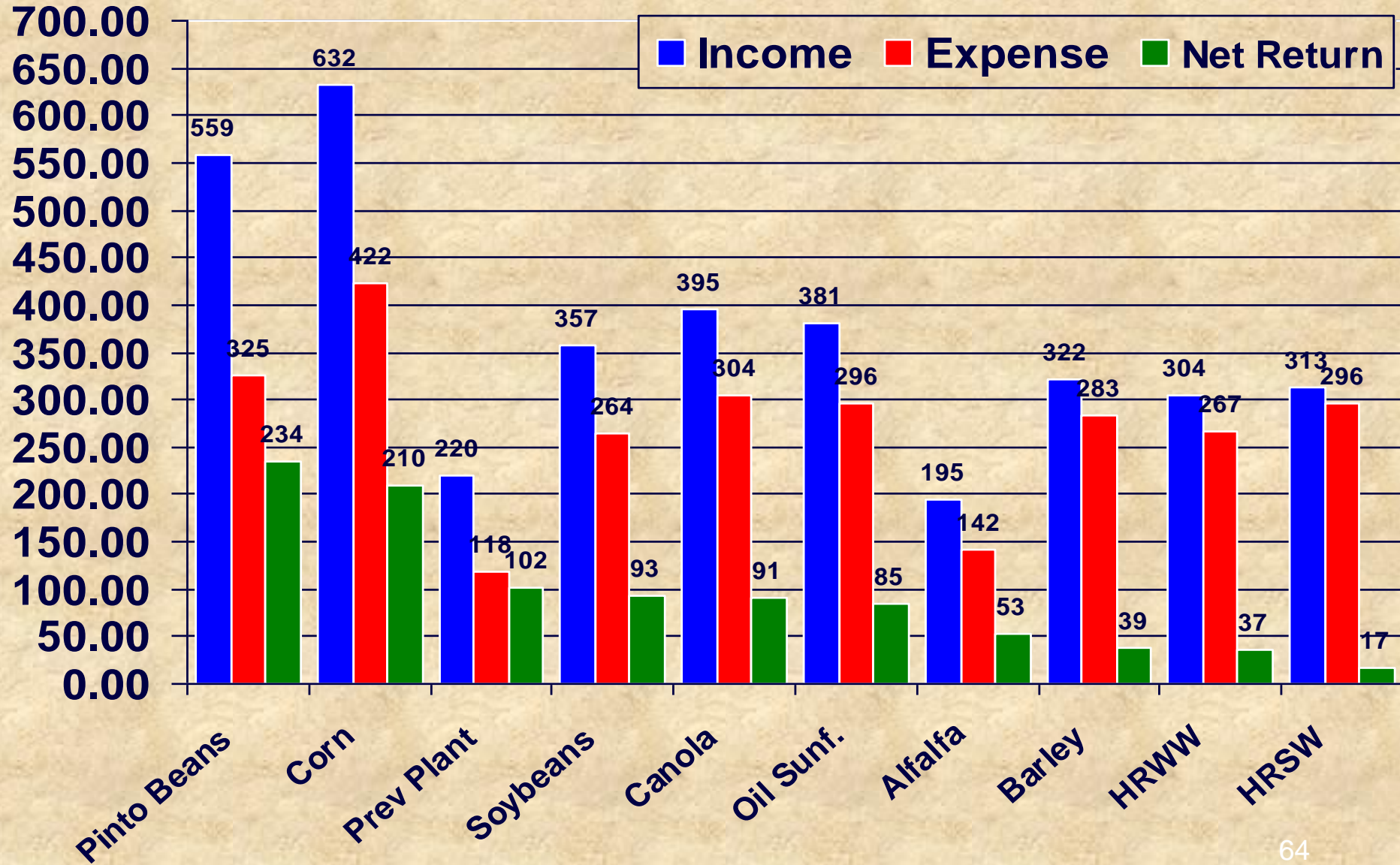
# 2012 Income, Expenses & Net Return/Acre on Cash Rented, Does not included direct or counter-cyclical payments.



# Return to Overhead per Cash Rented Acre without Direct or Counter-Cyclical Payments, Region 3, 2012

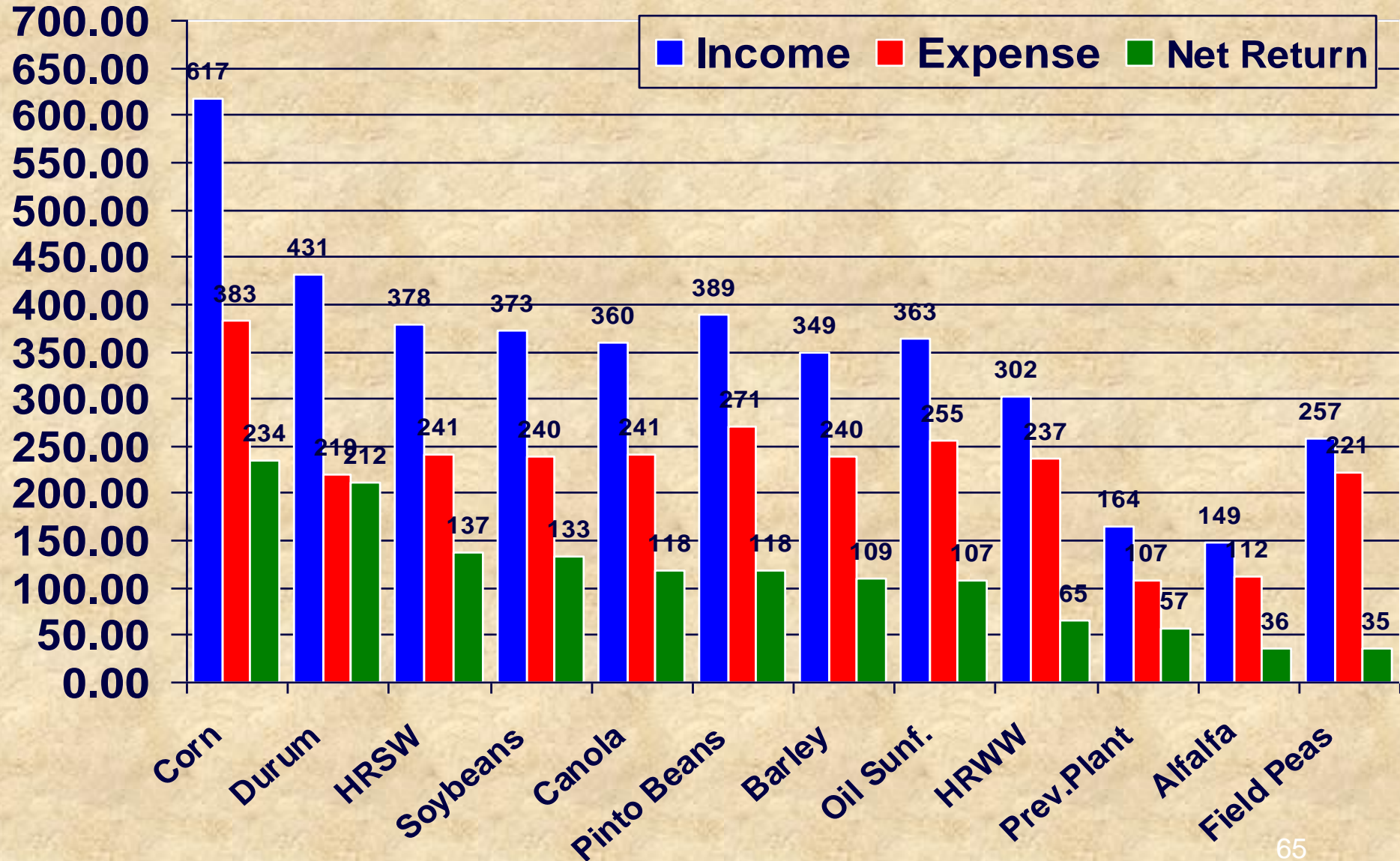


# 2011 Income, Expenses & Net Return/Acre on Cash Rented, Does not included direct or counter-cyclical payments.

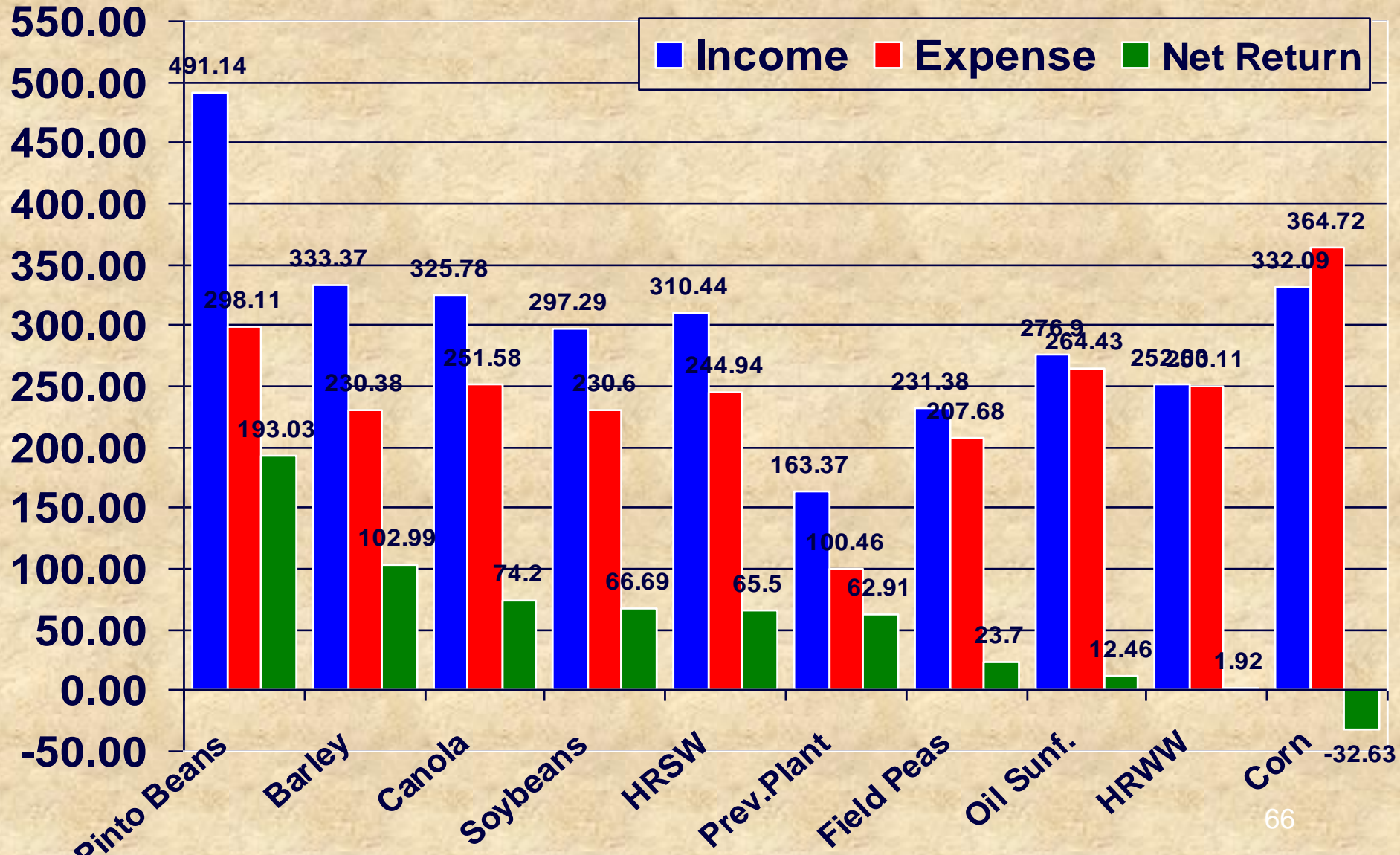




# 2010 Income, Expenses & Net Return/Acre on Cash Rented, Does not included direct or counter-cyclical payments.



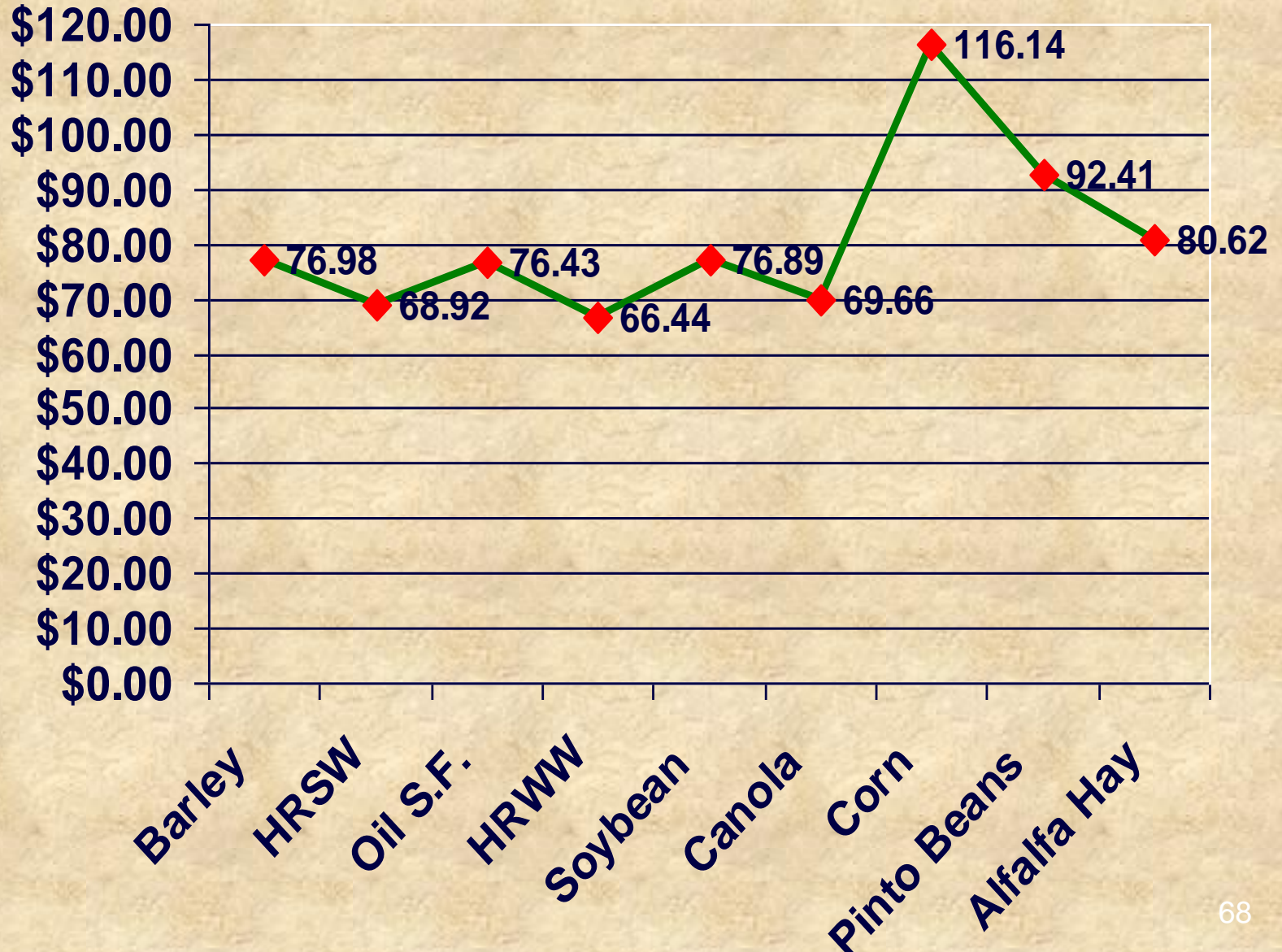
# 2009 Income, Expenses & Net Return/Acre on Cash Rented, Does not included direct or counter-cyclical payments.



# Machinery Costs per Acre

- Fuel
- Repairs
- Custom Hire
- Equipment Leases
- Interest on Intermediate Debt (Machinery portion)
- Machinery Depreciation (Crop portion only)
- Small Grains at \$65-\$80, Row Crops \$90-\$120

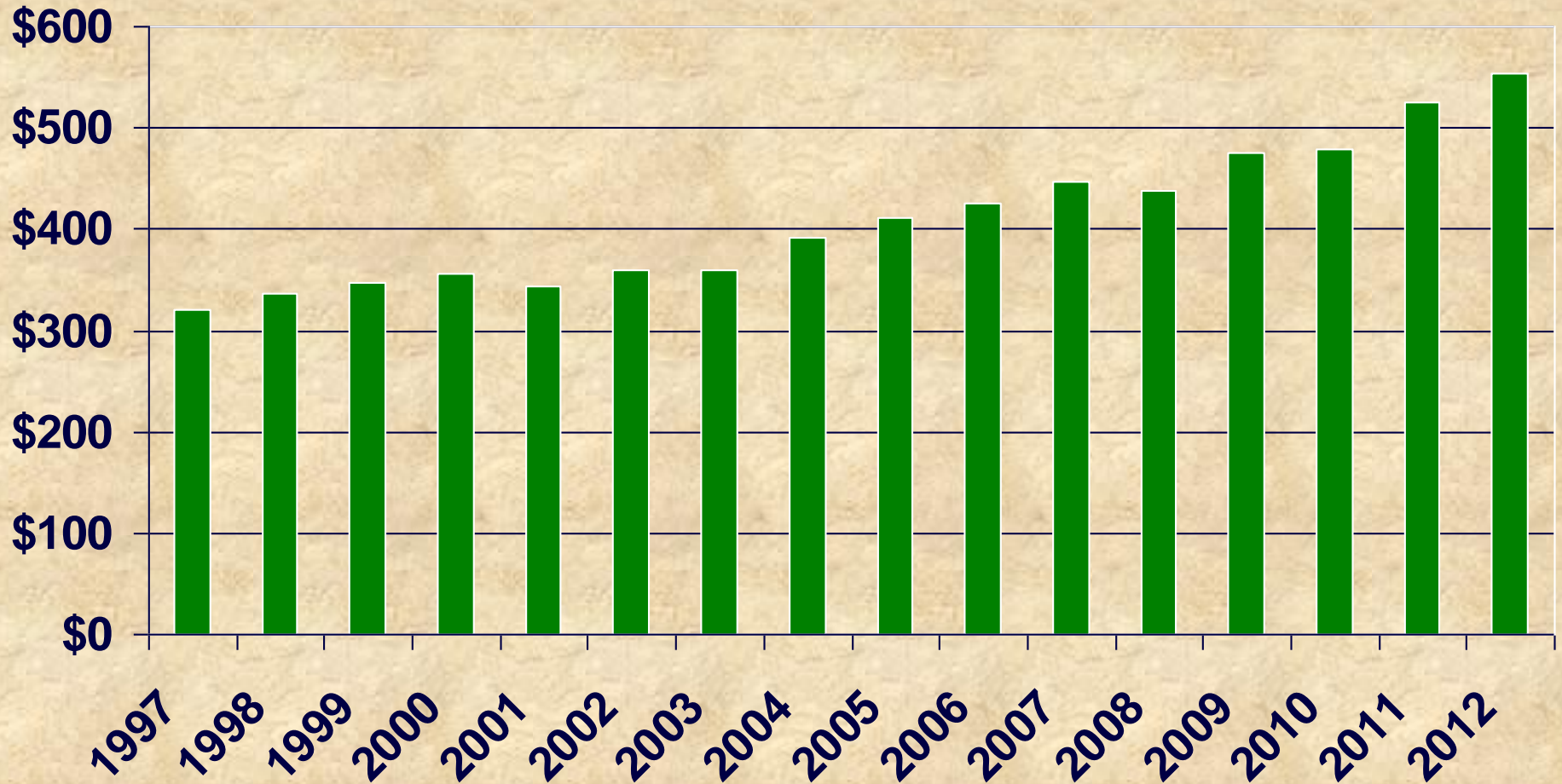
# 2011 Machinery Costs per acre, Cash Rented



# Beef Production in 2012



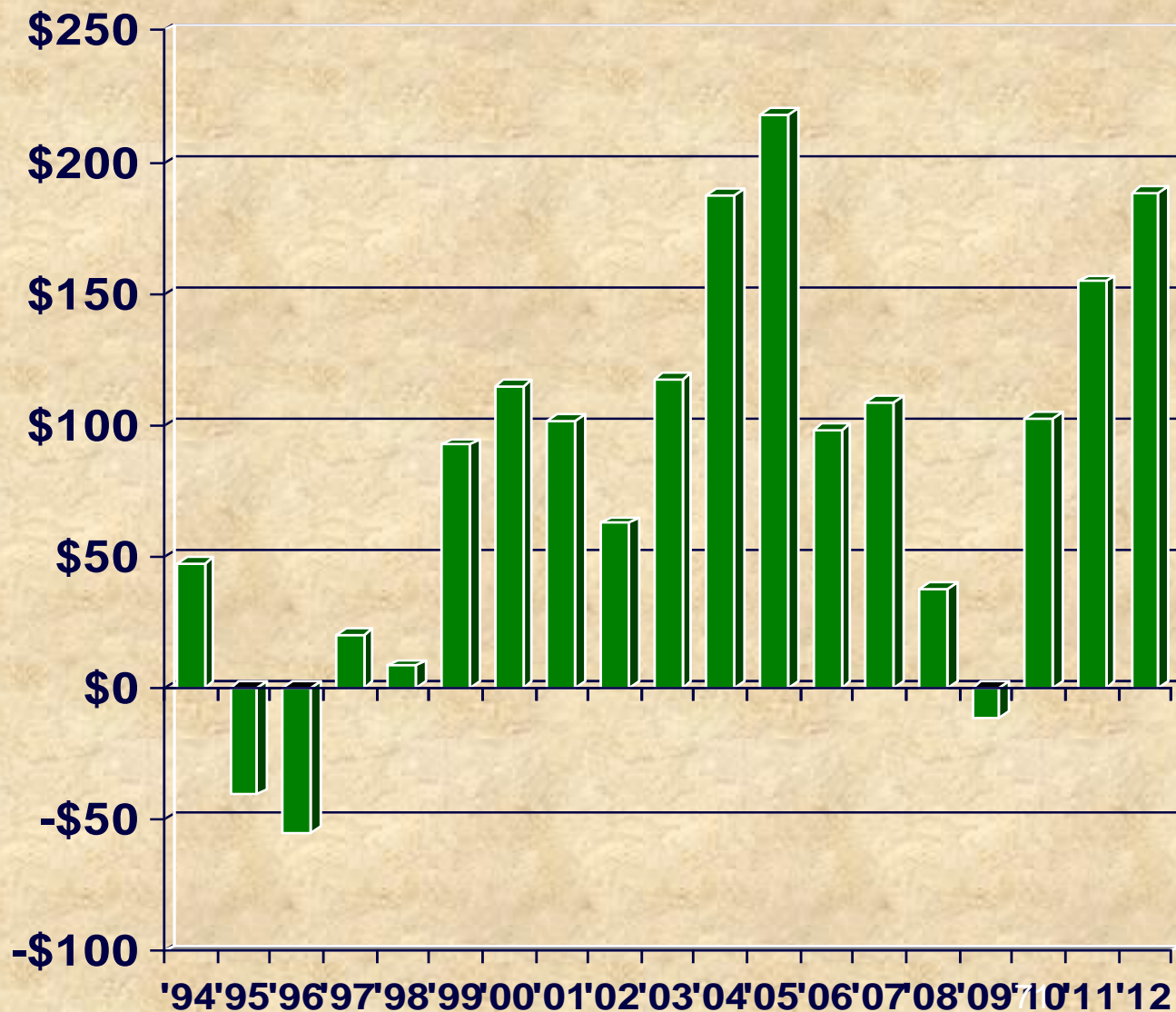
# Direct & Overhead Expenses per Cow, does not include net inventory change of \$55.76



# Net Return per Cow, Beef Cow Calf

## Beef Cow/Calf

● 1997	20.21
● 1998	8.52
● 1999	92.51
● 2000	114.80
● 2001	101.03
● 2002	62.82
● 2003	117.38
● 2004	187.63
● 2005	217.72
● 2006	98.40
● 2007	108.46
● 2008	37.75
● 2009	-11.35
● 2010	102.87
● 2011	154.62
● 2012	188.15



# Other Beef Cow Items:

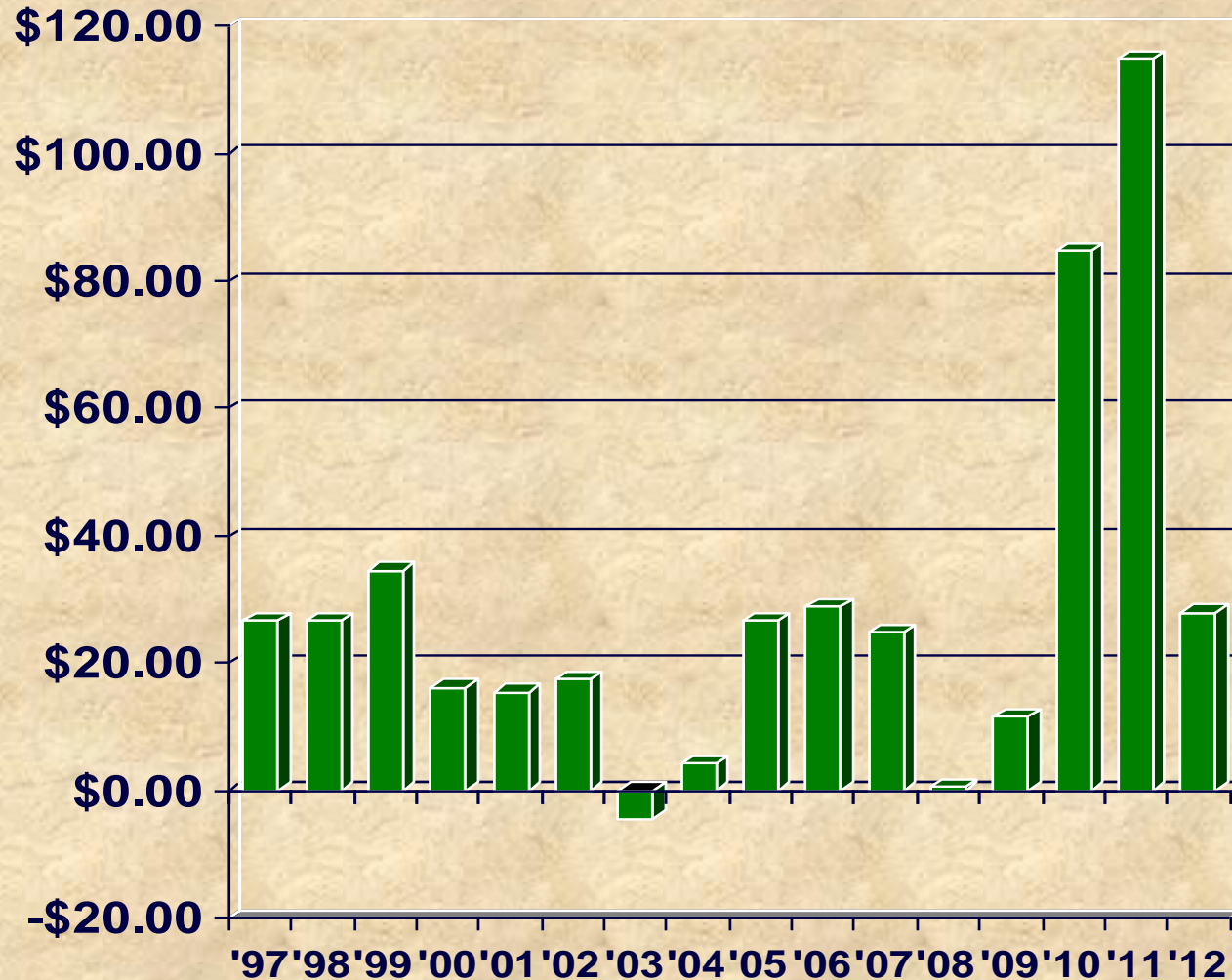
- Total average of all costs are \$610.13/cow.
- Average Profit per cow at \$188.15
- 20% High Profit netted \$322.44 per cow.
- 20% Low Profit netted \$30.25 per cow.
- Avg. weaning wt. 547 lbs. (1# less than 2011)
- Pounds weaned per exposed female 492 lbs.(+16 lbs)
- Avg. feed cost per cow of \$340.87 (up \$18.41)
- Avg. range or pasture cost per cow \$118.03 (+\$2.92)
- Avg. cost per aum was \$17.23 for rented pasture.
- Avg. cost to produce a ton of grass hay \$38.56
- Avg. cost to produce a ton of alfalfa hay \$66.75
- Avg. cost to produce a ton of corn silage \$28.84 wet, or approximately \$75-78/ton for 90% dry matter.



# Beef Backgrounding, Net Return/Head

Per Calf

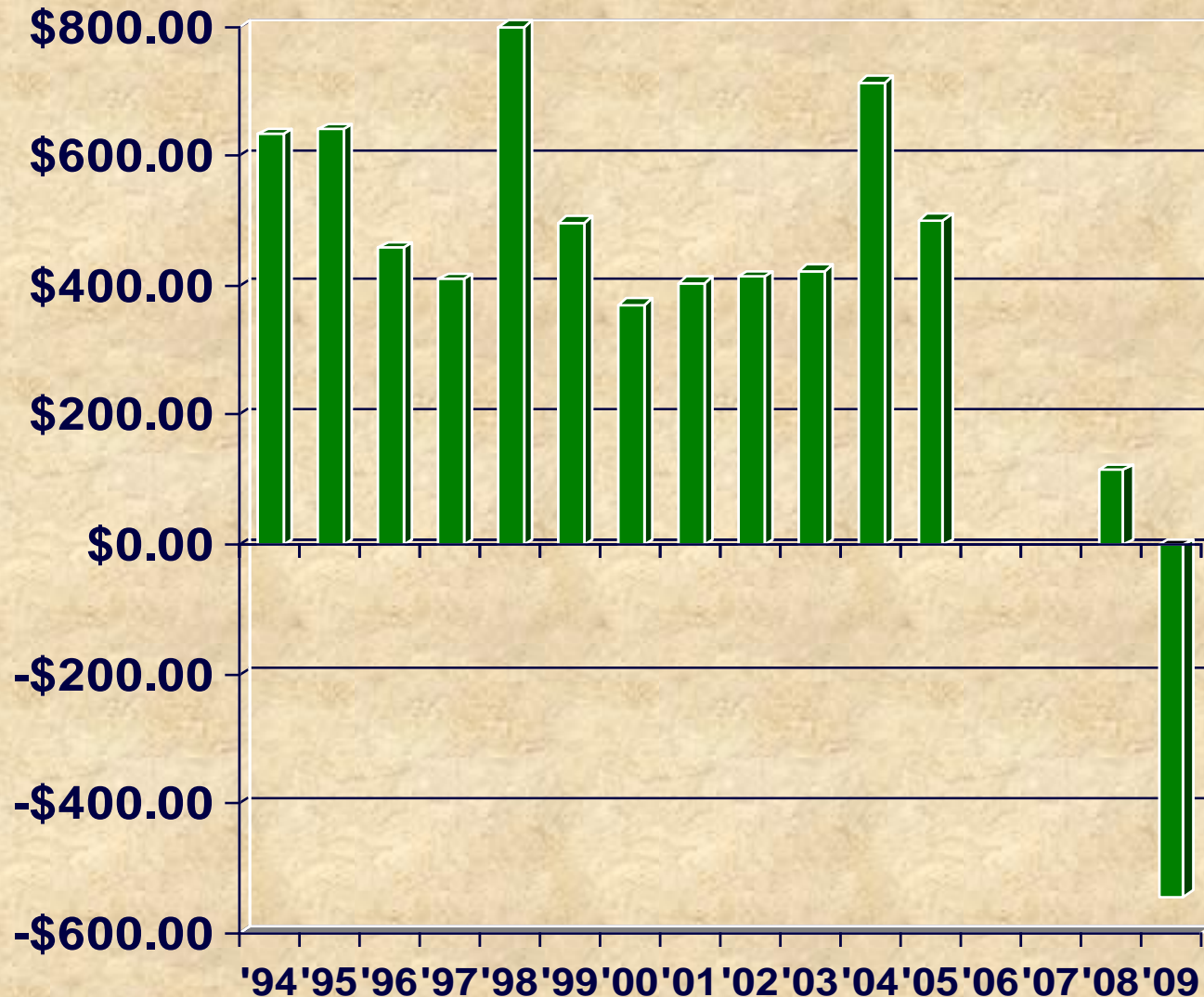
● 1997	26.71
● 1998	26.62
● 1999	34.56
● 2000	16.23
● 2001	15.52
● 2002	17.37
● 2003	-4.35
● 2004	4.29
● 2005	26.62
● 2006	28.90
● 2007	24.74
● 2008	.49
● 2009	11.54
● 2010	84.63
● 2011	114.85
● 2012	27.96



# Net Return per Dairy Cow, No data for 2010-2012

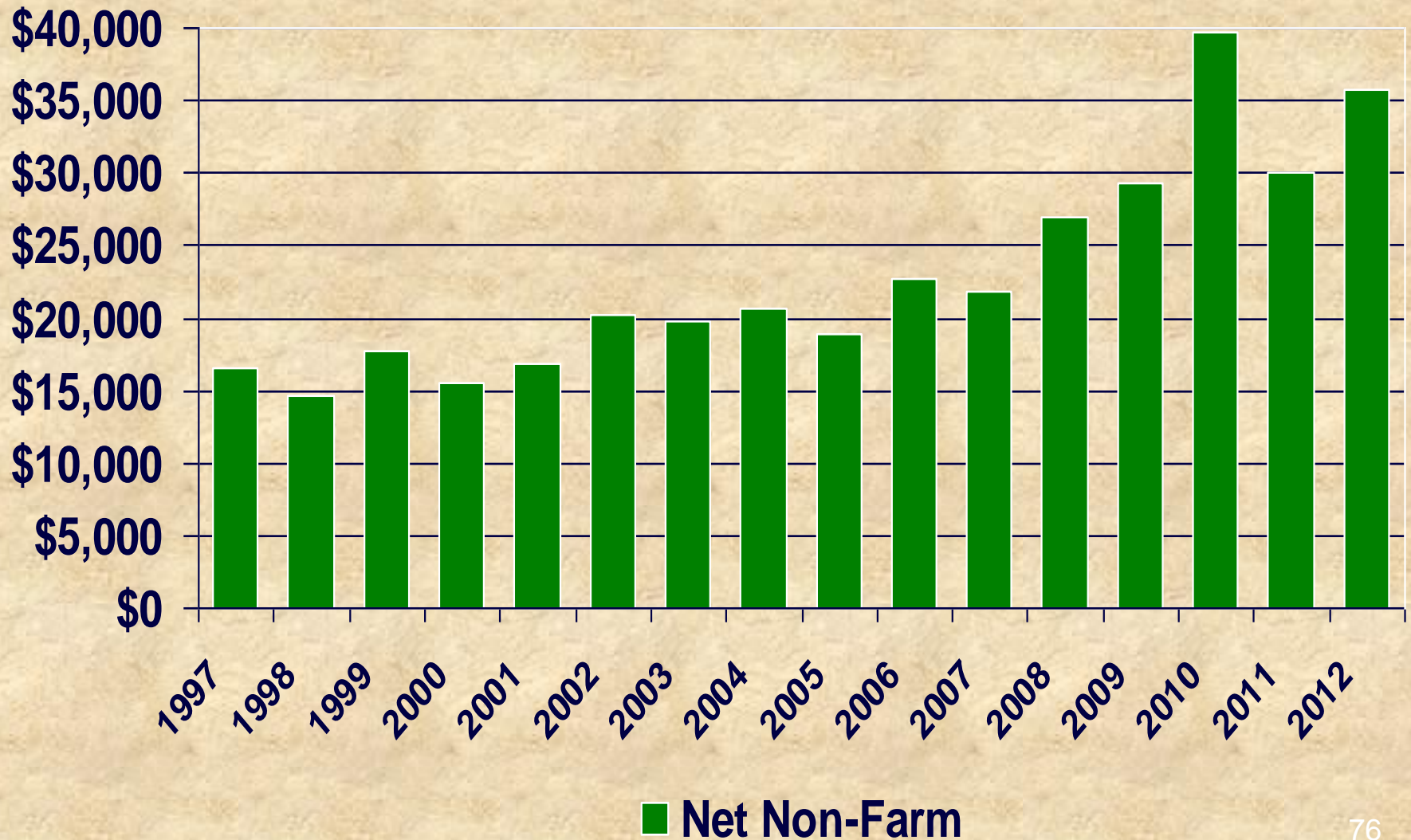
## Dairy Cow

● 1994	634.22
● 1995	640.49
● 1996	457.99
● 1997	409.67
● 1998	799.50
● 1999	497.41
● 2000	370.63
● 2001	403.94
● 2002	413.60
● 2003	422.63
● 2004	713.67
● 2005	501.60
● 2006	
● 2007	
● 2008	115.65
● 2009	-543.74

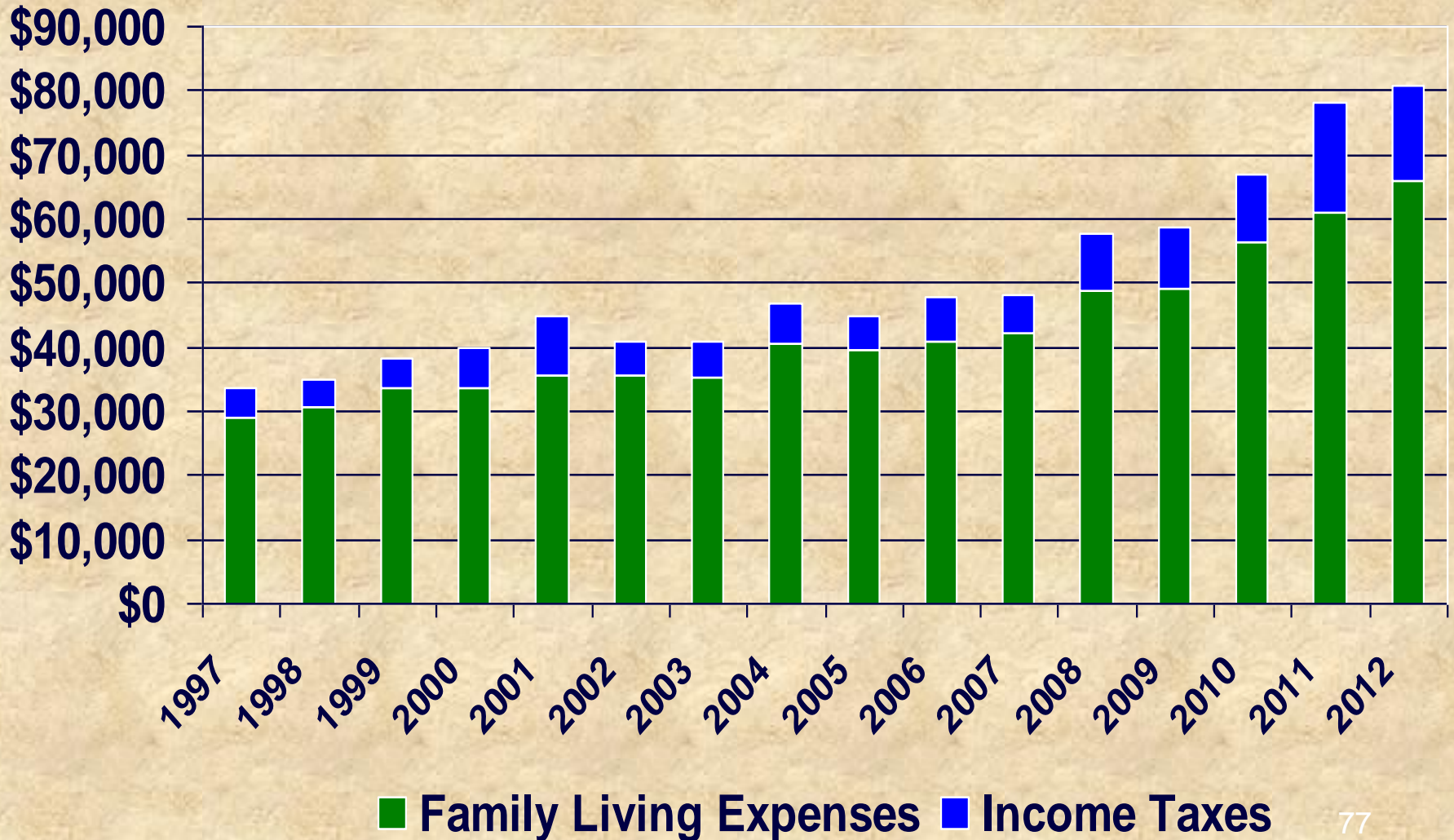


**Non-Farm Income  
and  
Family Living Information**

# Non-Farm Income Per Farm



# Average Family Living Expenditures and Income Taxes for Region 3



# Family Living Expenses, 2.8 members, Based on itemization from 69 Farms

● Food & Meals	\$ 7,838	● Utilities	\$ 2,859
● Medical Care	\$ 3,505	● Veh. Exp.	\$ 3,292
● Health Insur.	\$ 6,036	● Household Rep	\$ 2,490
● Donations	\$ 1,852	● NF Interest	\$ 1,062
● Household	\$ 7,047	● Life Insurance	\$ 2,152
● Clothing	\$ 1,875	● Miscellaneous	\$ 548
● Personal	\$ 6,883	● Recreation	\$ 4,145
● Child Care	\$ 479	● Prop. Insurance	\$ 295
● Gifts	\$ 1,970	● Other Items	\$ 1,001
● Education	\$ 1,144	● Total of all	\$56,473

# **ND FARM** MANAGEMENT EDUCATION

**The North Dakota Farm Business Management Education Program is sponsored by the North Dakota Department of Career and Technical Education**



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