

# Costs of Producing Winegrapes San Joaquin Valley North



**KAREN KLONSKY**  
**DEPT. OF AGRICULTURAL & RESOURCE**  
**ECONOMICS**  
**UNIVERSITY OF CALIFORNIA, DAVIS**

# Cost and Return Study Development



- Select a hypothetical vineyard size
- Develop chronological list of operations
- Specify material inputs, equipment use and labor needs for each operation
- Collect price data for all inputs
- Calculate the costs and resource use for each operation

# Data Collection Sheet



Operation	Month	Hours/ Acre	Materials	Units/ Acre	Equipment

# Cost and Return Study Development



- Design the hypothetical farm
  - Vineyard size
  - Owned or leased
  - Irrigation system
  - Vine spacing
  - Trellis system

# Cost and Return Study Development



- Design the hypothetical farm
- Develop calendar of operations and inputs
  - Determine equipment, labor, and materials for each operation
  - Time per acre for each operation

# Cost and Return Study Development



- Design the hypothetical farm
- Develop calendar of operations and inputs
- **Collect additional price data**
  - Contact local input suppliers
  - Labor rates, custom application rates
  - Price ranges for the winegrapes
  - Land values

# Costs of Production Study Format



- Cultural Costs
- Harvest Costs
- Cash Overhead
- Noncash Overhead

# Costs of Production



- Cultural Costs
  - Pruning and brush removal
  - Floor management
  - Disease and pest control
  - Irrigation
  - Leaf analysis
  - ATV and pickup use
- Harvest Costs
- Cash Overhead
- Noncash Overhead

# Costs of Production



- Cultural Costs
- Harvest Costs
  - Mechanical Harvest – Contract
  - Haul to Processor – out of county
- Cash Overhead
- Noncash Overhead

# Costs of Production



- Cultural Costs
- Harvest Costs
- Cash Overhead
  - Liability Insurance
  - Sanitary Service
  - Property Taxes and Insurance
  - Repairs on Buildings and Irrigation System
- Noncash Overhead

# Costs of Production



- Cultural Costs
- Harvest Costs
- Cash Overhead
- Noncash Overhead (Capital Recovery)
  - Buildings, Shop, and Field Tools
  - Irrigation System
  - Fuel Tanks
  - Equipment
  - Trees

# Equipment costs



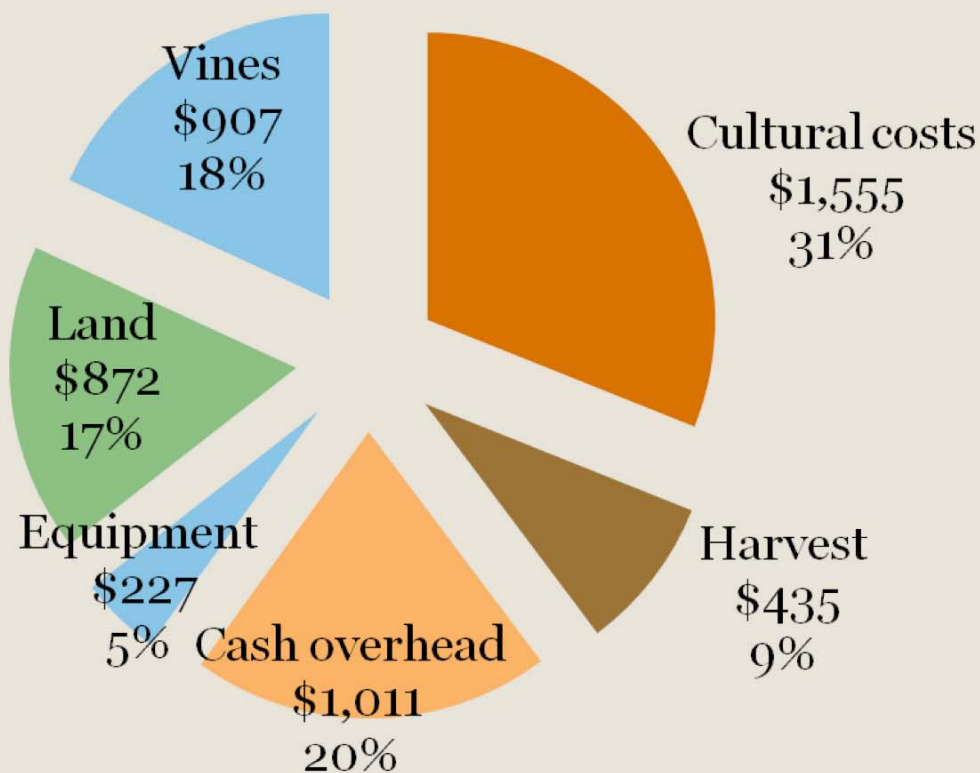
- Operating costs
  - Fuel and lube
  - Repairs
- Business overhead
  - Insurance
  - Taxes
- Capital recovery
  - Principle and interest or ownership costs

# Cabernet Sauvignon, Crush District 11 Vineyard Assumptions

- ❖ Vineyard owned and operated by the grower
- ❖ Cabernet Sauvignon
- ❖ 7 ft. X 10 ft. spacing, 622 vines/acre
- ❖ Bilateral, cordon-trained, spur-pruned vineyard
- ❖ 5 wires
- ❖ 200 acres contiguous land
- ❖ 60 acres of vines being developed, 135 producing
- ❖ Drip irrigation

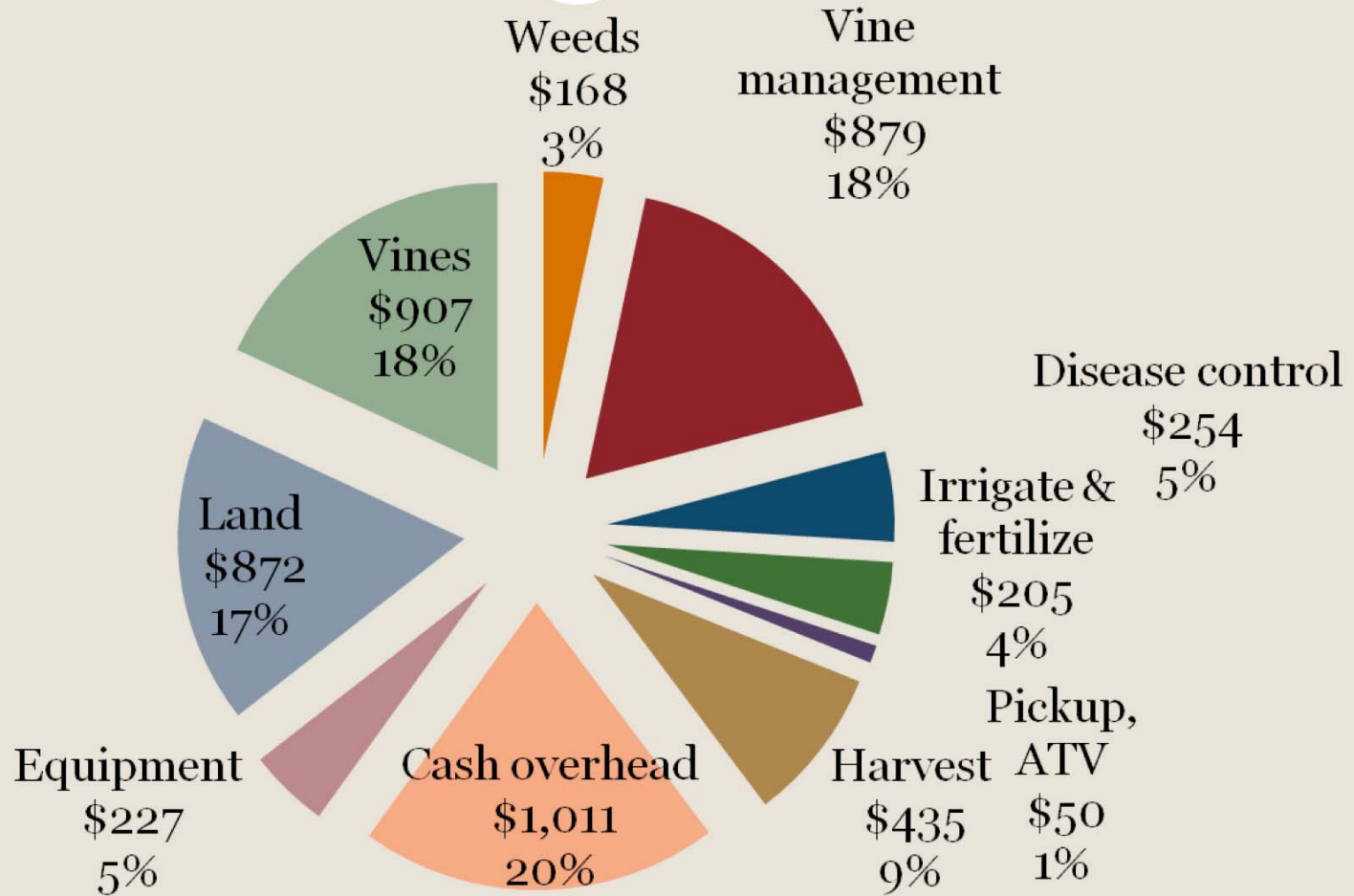
# Cabernet Sauvignon, Crush District 11

## Total cost of production, \$ 5,007 per acre



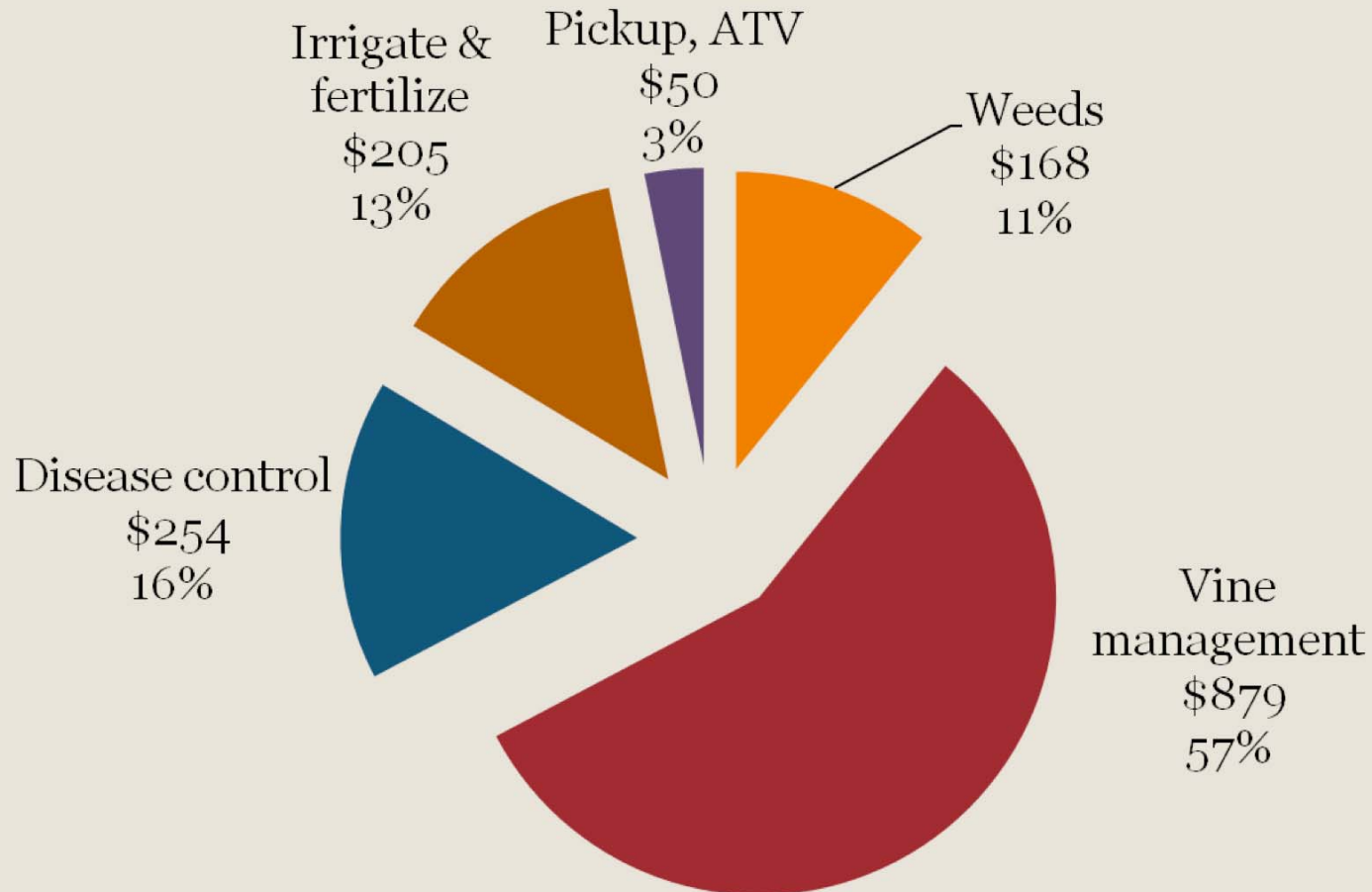
# Cabernet Sauvignon, Crush District 11

## Total cost of production, \$ 5,007 per acre



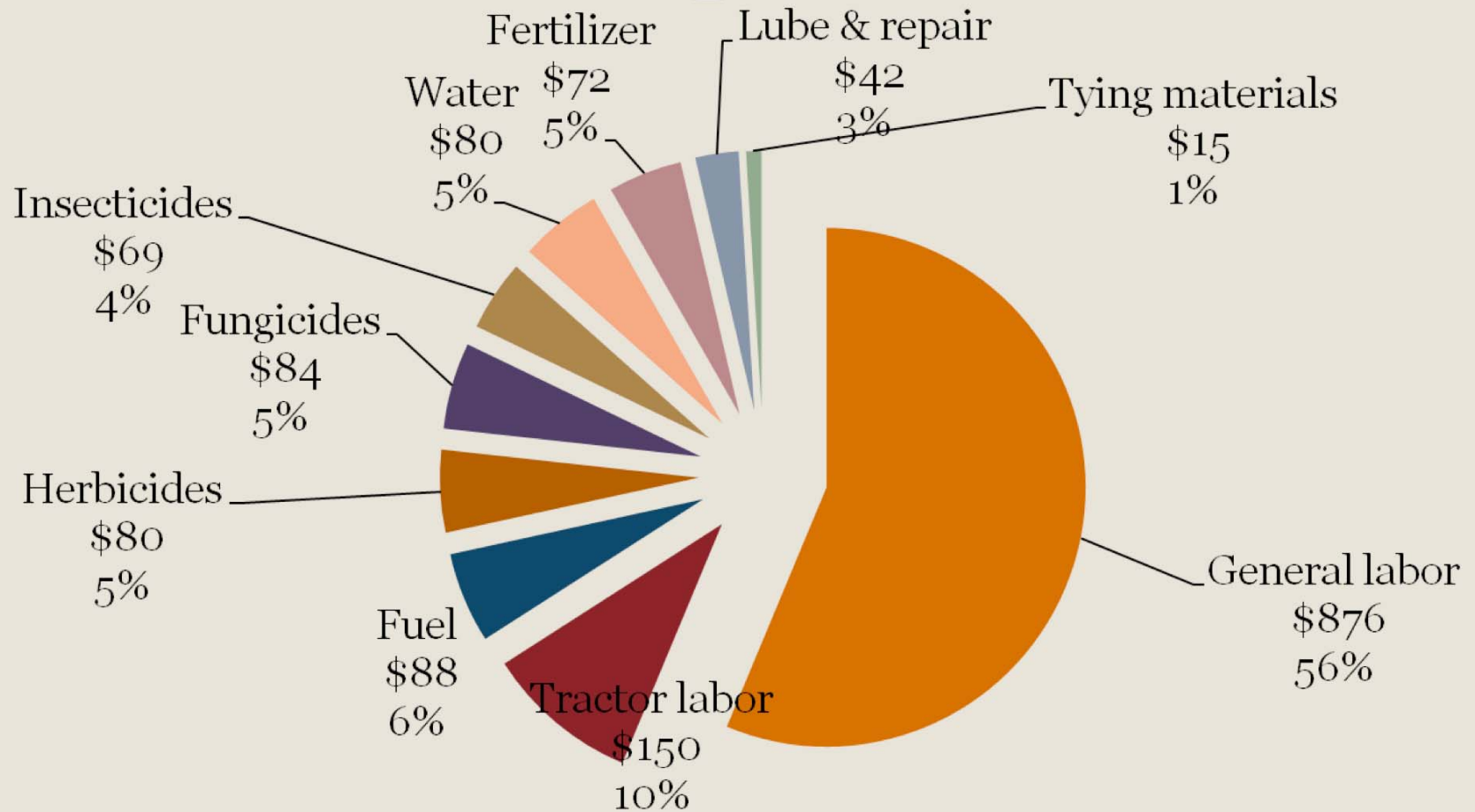
# Cabernet Sauvignon, Crush District 11

## Cultural costs, \$ 1,555 per acre



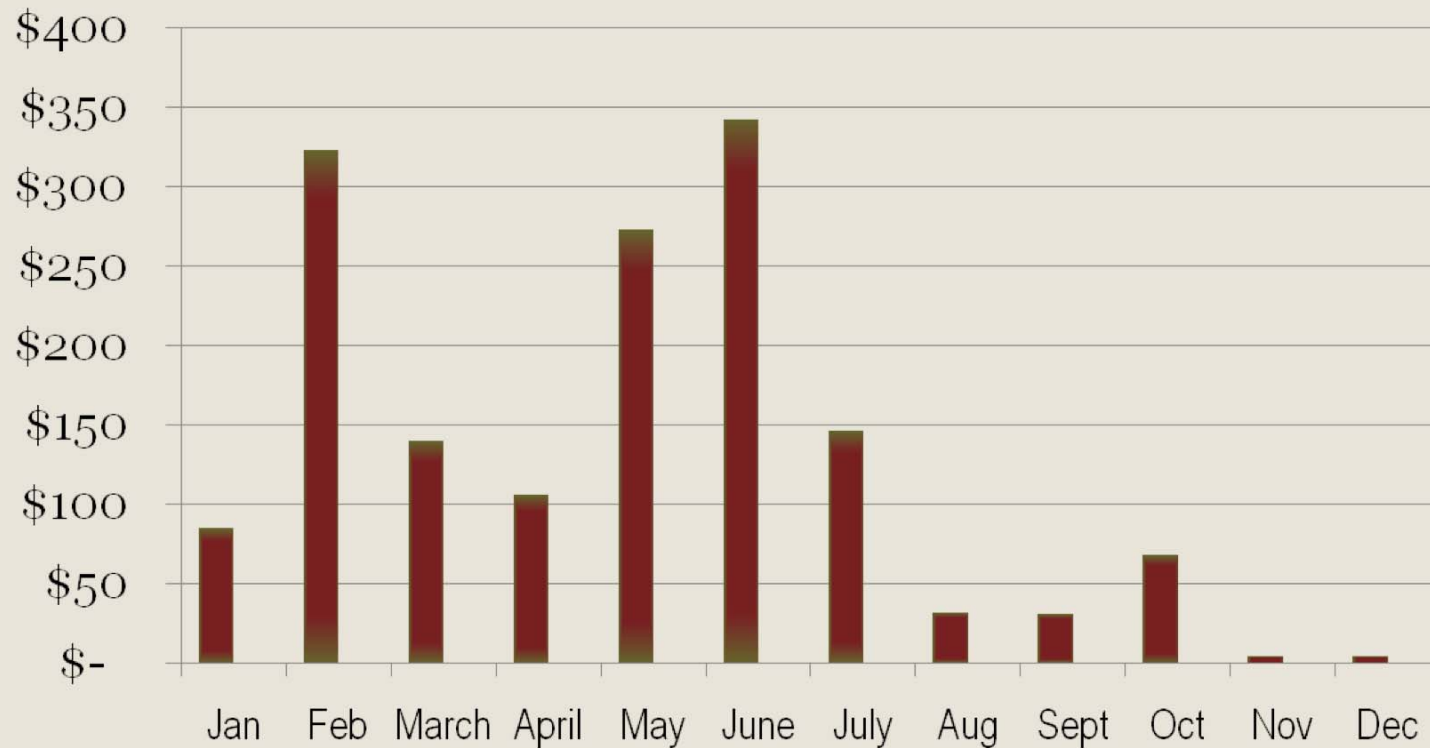
# Cabernet Sauvignon, Crush District 11

## Cultural costs, \$ 1,555 per acre



# Cabernet Sauvignon, Crush District 11

## Monthly Cultural Costs, \$1,555 per acre



# Cabernet Sauvignon, Crush District 11

## Weed control detail



Operation	Labor	Material	Fuel, lube, and repairs	Total
Winter strip spray	\$9	\$68	\$4	\$81
Disk 4X	30		32	62
Strip spot spray	9	12	4	25
Total	27	55	14	168

Operation	Month	Tractor	Implement	Material
Winter strip spray	January	30HP	Weed sprayer	Goal, Roundup, Surflan
Disk centers	March, April June, October	70 HP	Disk, 7 ft.	
Strip spot spray	June	30HP	Weed sprayer	Roundup

# Cabernet Sauvignon, Crush District 11

## Vine management detail



Operation	Labor	Material	Fuel, lube, and repairs	Total
Hand prune	\$319			\$319
Chop/shred prunings	5		7	12
Winter tie	94	15		109
Trunk sucker	59			59
Shoot removal/position	176			176
Hand leaf removal	176			176
Trim vines(mechanical)	12		16	28
Total	\$841	\$15	\$23	\$879

# Cabernet Sauvignon, Crush District 11

## Disease and insect control detail



Operation	Labor	Material	Fuel, lube, and repairs	Total
Mildew	\$25	\$38	\$12	\$74
Mildew, leafhopper	15	34	18	67
Mildew, mites	15	81	18	113
<b>TOTAL</b>	<b>55</b>	<b>153</b>	<b>48</b>	<b>\$254</b>

Operation	Month	Tractor	Implement	Material
Mildew	April -June	30HP	Duster	Dusting sulfur
Mildew, leafhopper	June	70HP	Vineyard sprayer	Rally, Provado
Mildew, mites	July	70HP	Vineyard sprayer	Flint, Omite

# Cabernet Sauvignon

## Profitability at varying yields and prices



	4.5 tons	6.5 tons	8.5 tons
Operating costs / ton	\$443	\$313	\$245
Total cash costs / ton	657	461	358
Total costs / ton	1,103	770	594

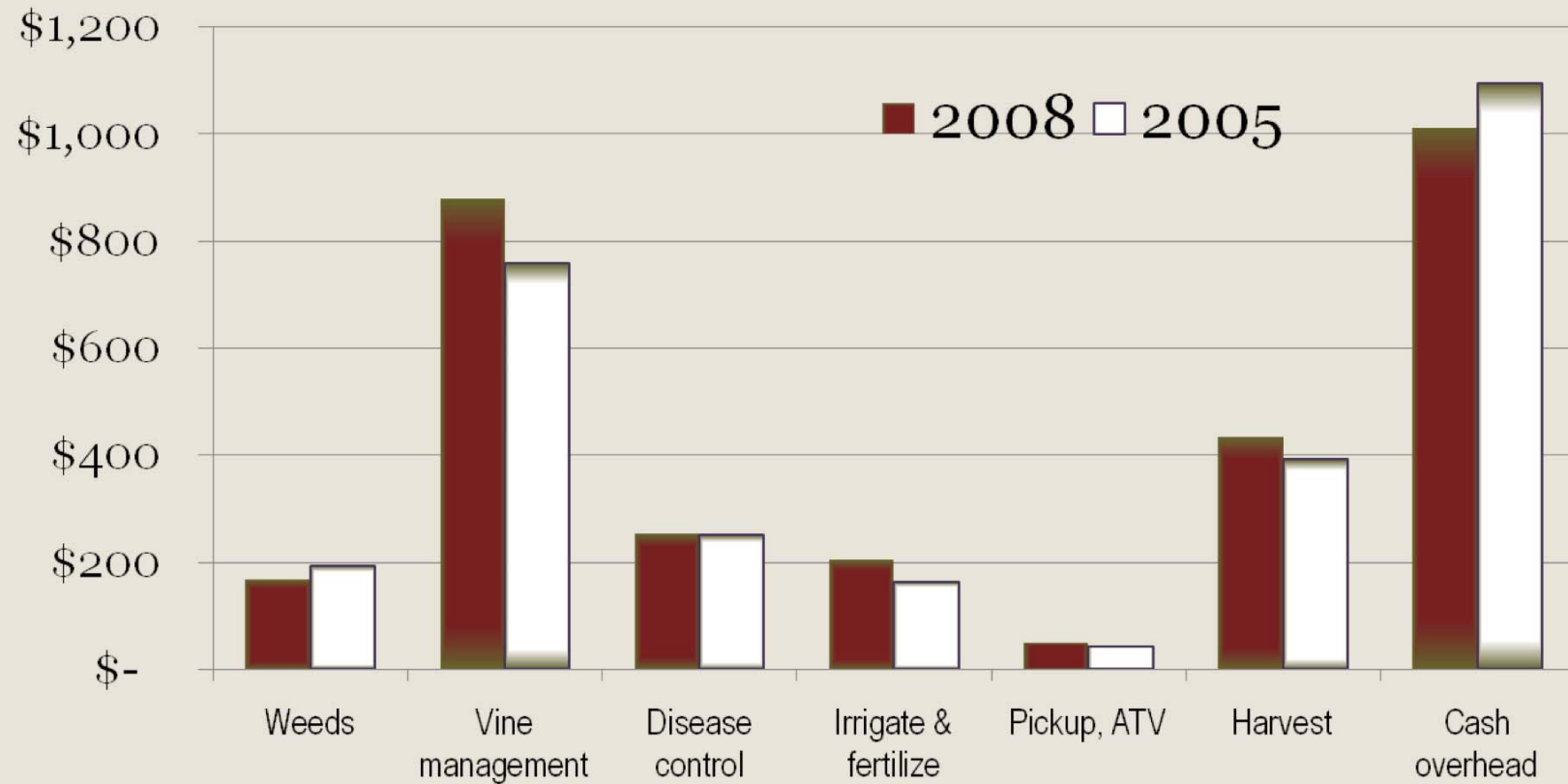
Breakeven price equals the production cost per ton.

## Input Costs 2005 and 2008

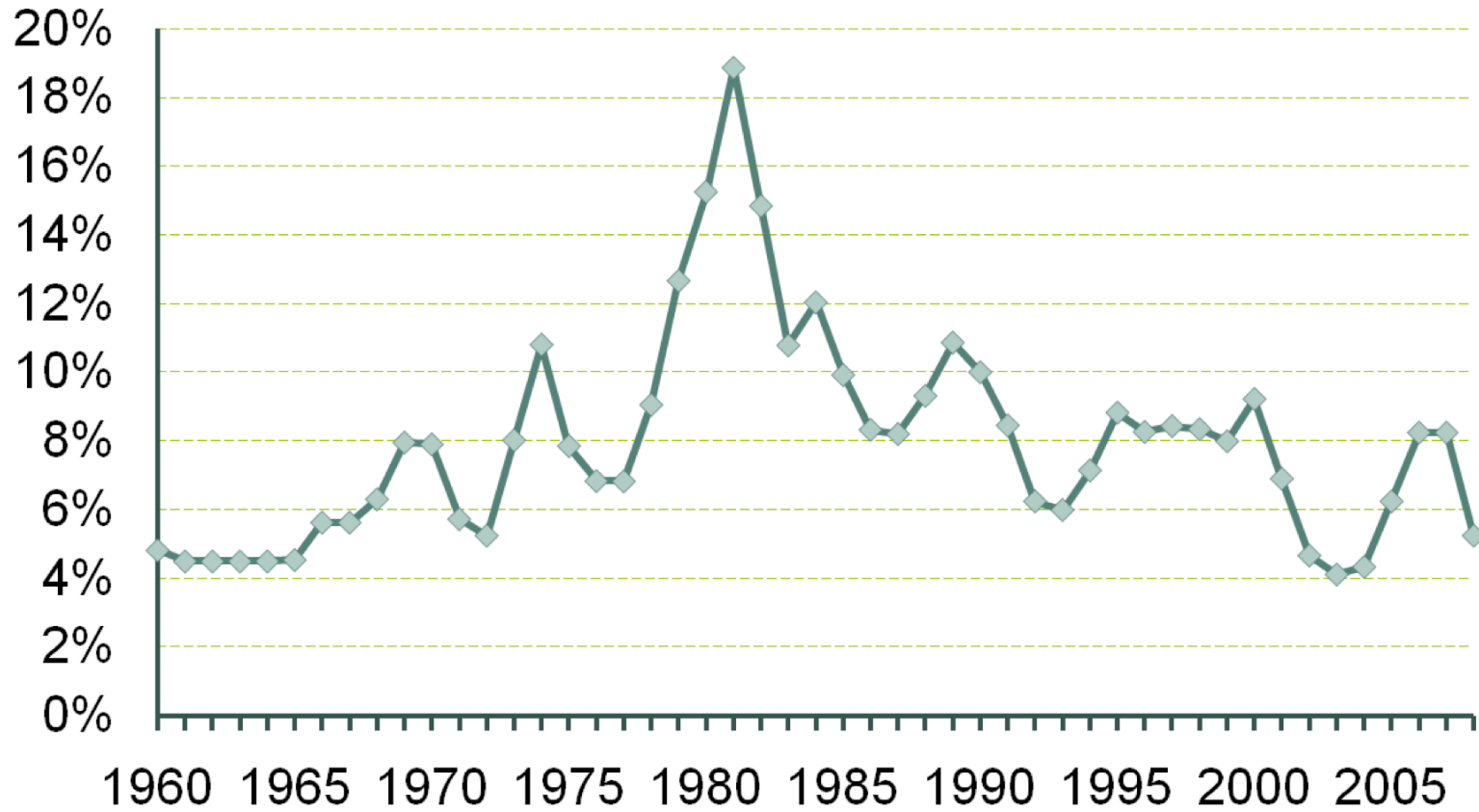


	2005	2008	% increase
Labor – field (\$/hr.)	\$9.25	\$10.64	15%
Labor – tractor (\$/hr.)	\$14.38	\$14.63	2%
Diesel (\$/gallon)	\$1.95	\$3.57	83%
Fertilizer 5-0-12 (\$/lb)	\$.06	\$.12	100%
Interest on operating loan	7.65%	6.75%	

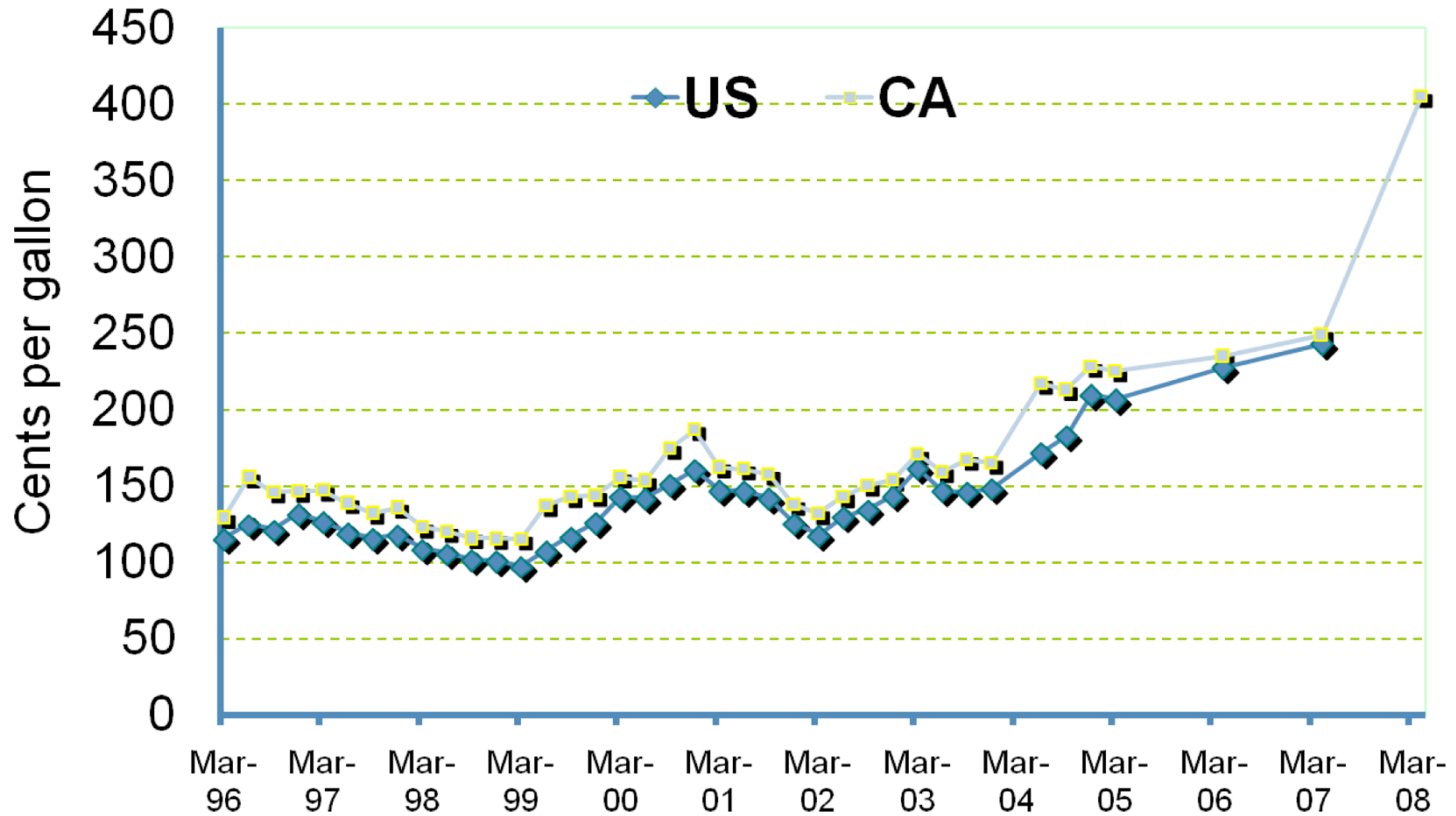
# Cash Costs, \$ per acre Cabernet Sauvignon, 2005 and 2008



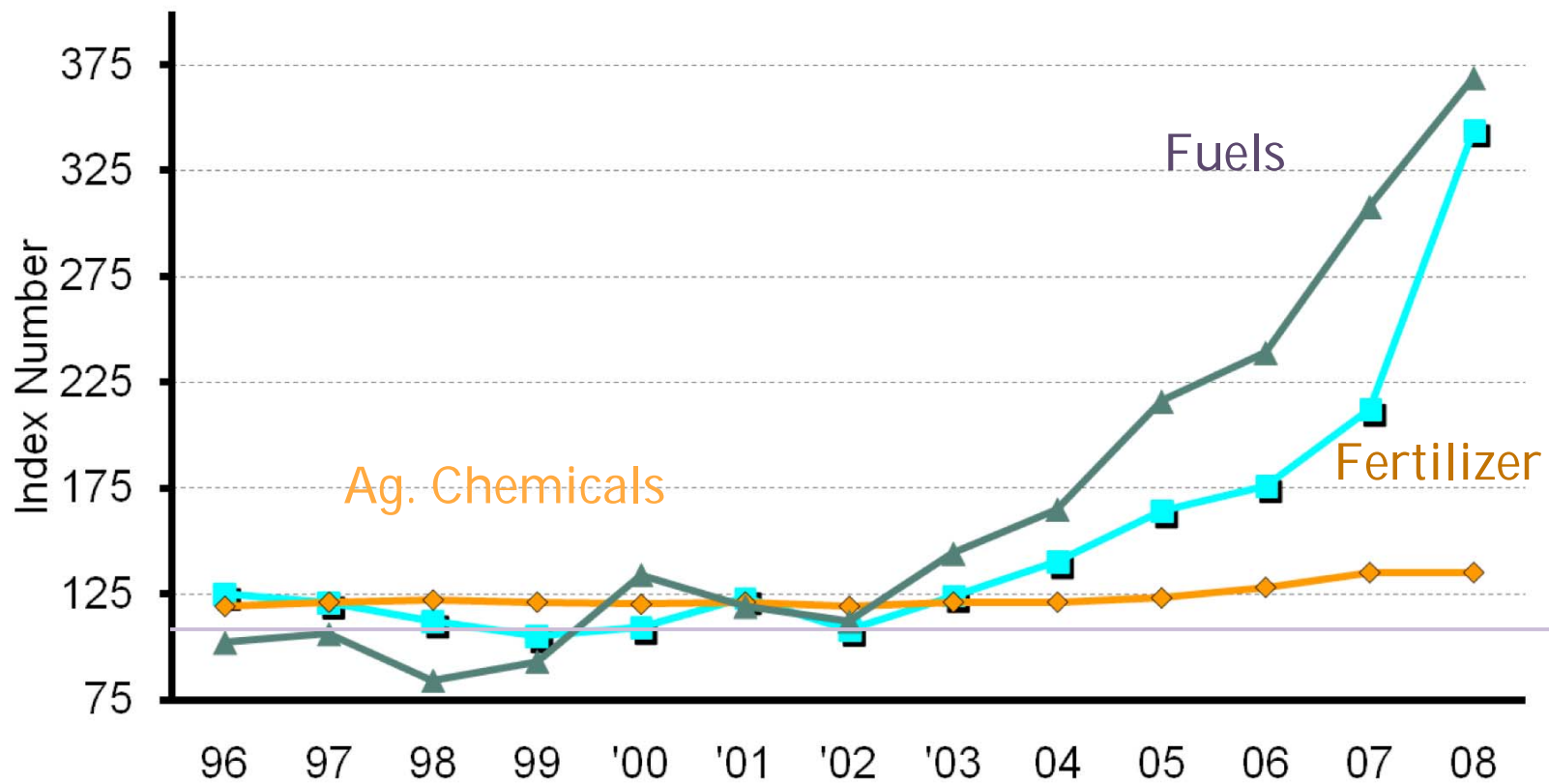
# Prime Interest Rate



# Diesel Prices US and CA

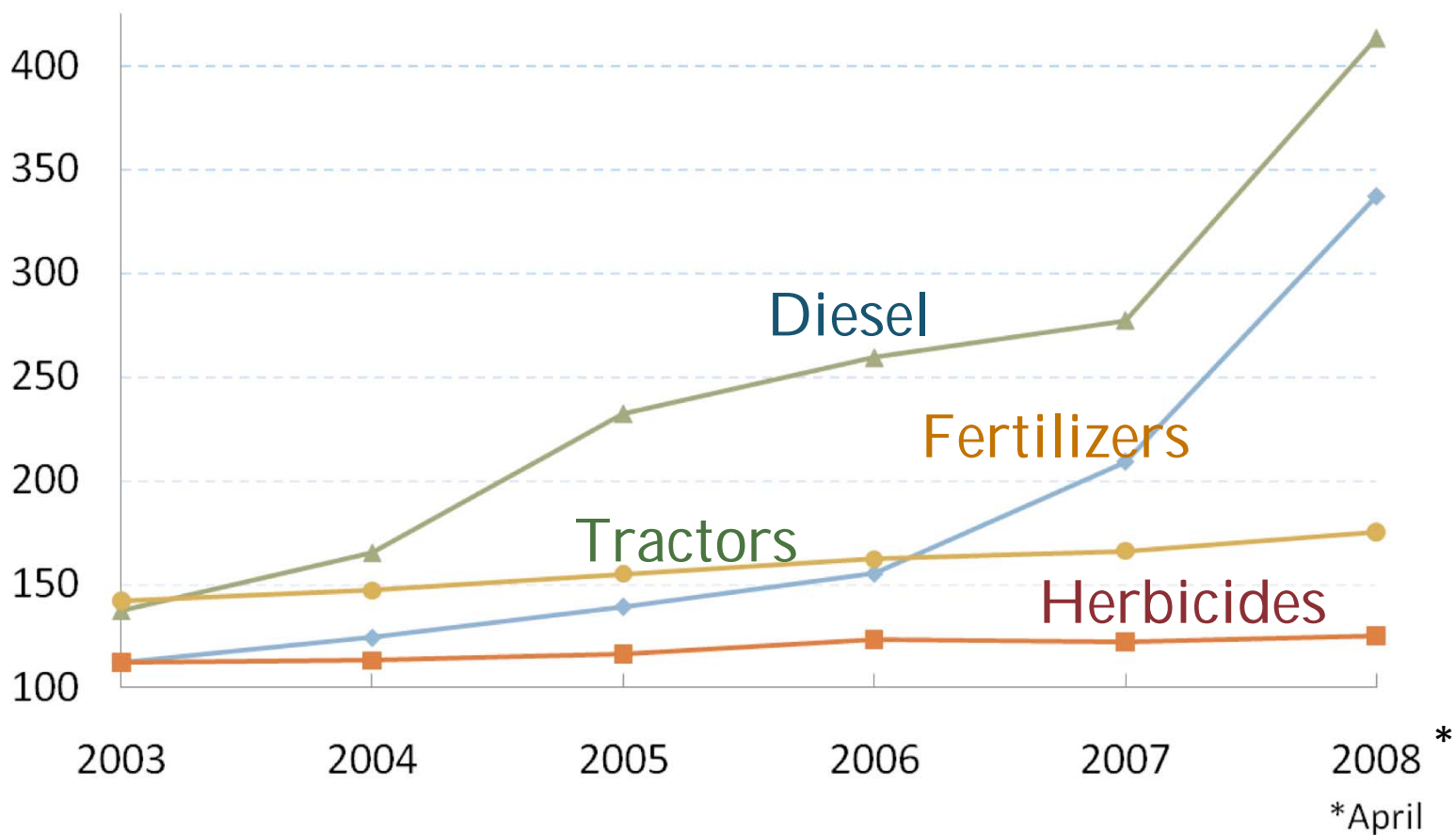


# Indexes of prices paid by US farmers 1990-1992 = 100



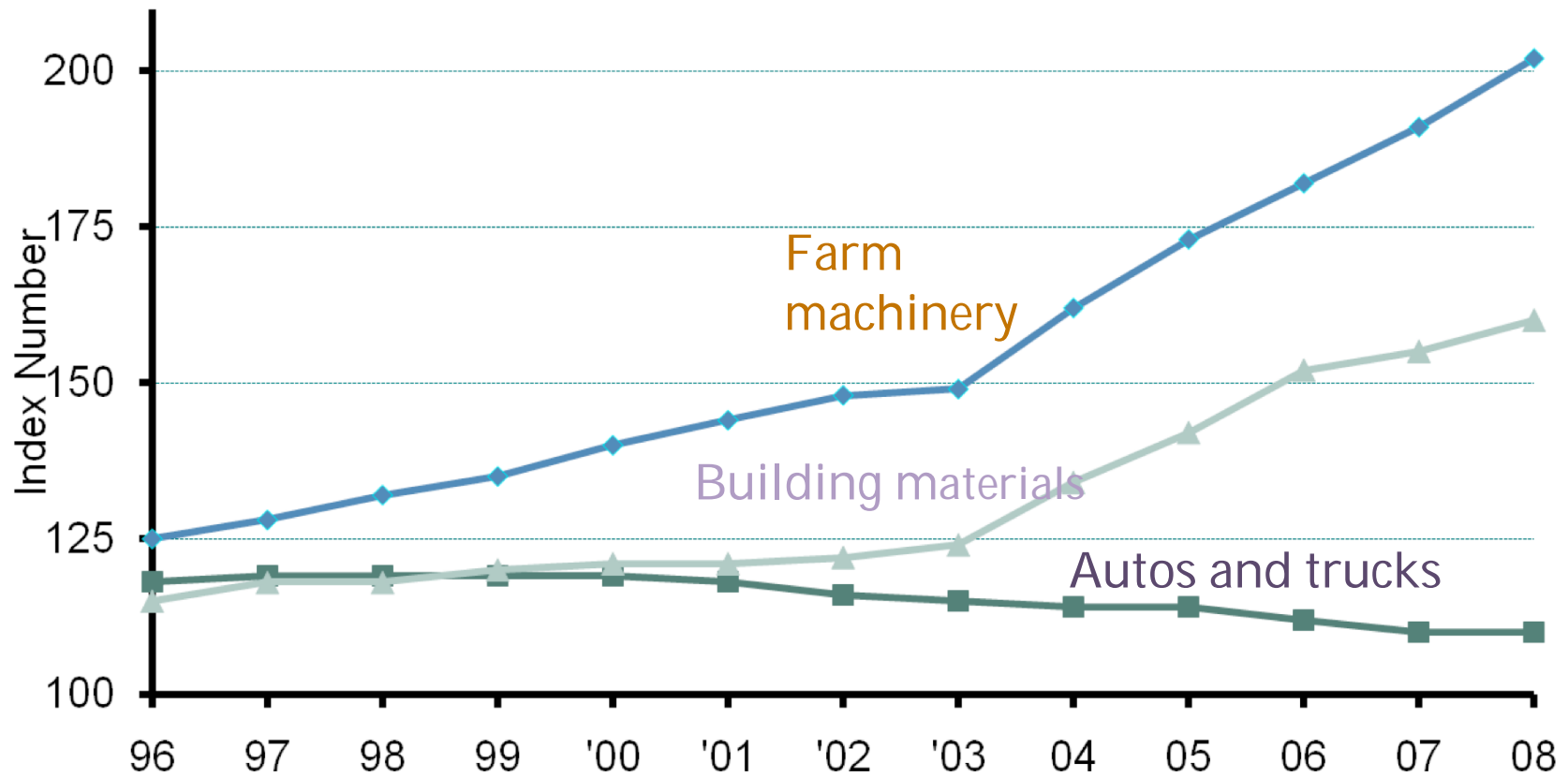
Source: National Agricultural Statistical Service, USDA.

# Indexes of prices paid by US farmers 1990-1992 = 100



Source: NASS Agricultural Prices <http://www.nass.usda.gov/publications>

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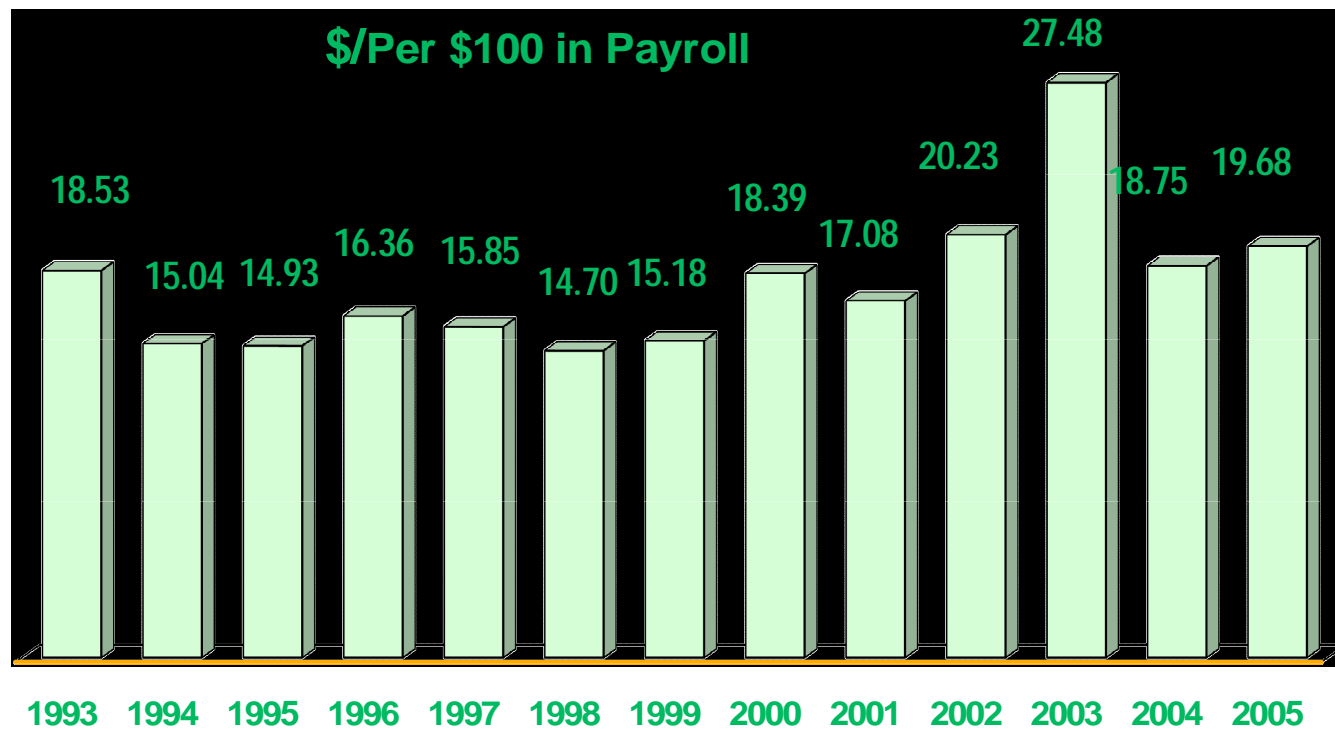
Source: National Agricultural Statistical Service, USDA

# Indexes of prices paid by US farmers 1990-1992 = 100



Source: NASS Agricultural Prices <http://www.nass.usda.gov/publications>

# Workman's Compensation Rate Fruit Orchards



Source: State Fund Base Rate January 1

# Land Values, San Joaquin County 2007



Source: Trends in Ag Land and Lease Values

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