

# Efficiency and Competitiveness of Kansas Cow Herds

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# Outline of Presentation

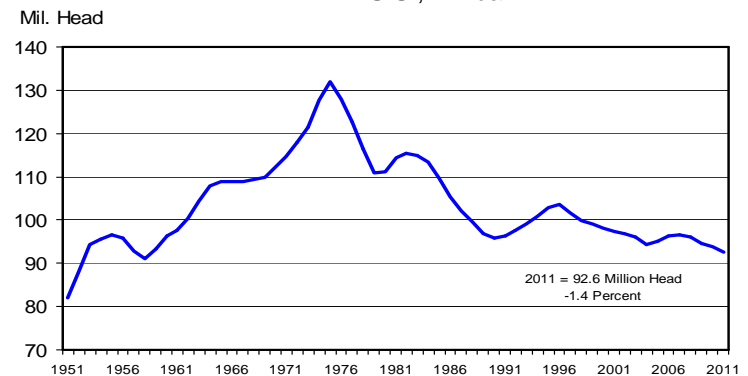
- ✓ U.S. Beef Industry
- ✓ Relative Profitability of Livestock Farms
- ✓ World Production and Consumption of Beef
- ✓ International Comparisons
  - Cow Calf
  - Beef Finishing

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# U.S. Beef Industry

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**JANUARY 1 TOTAL CATTLE INVENTORY**  
U.S., Annual



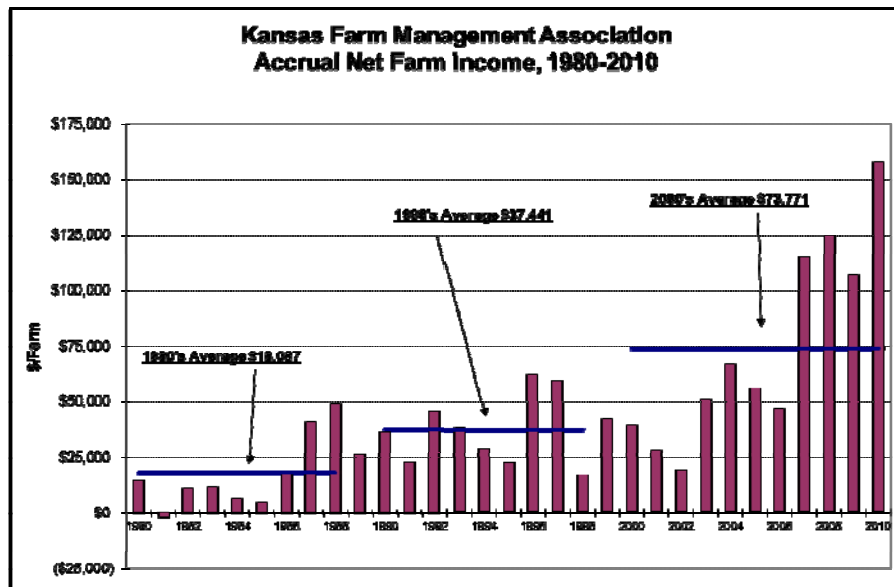
Livestock Marketing Information Center  
Data Source: USDA-NASS



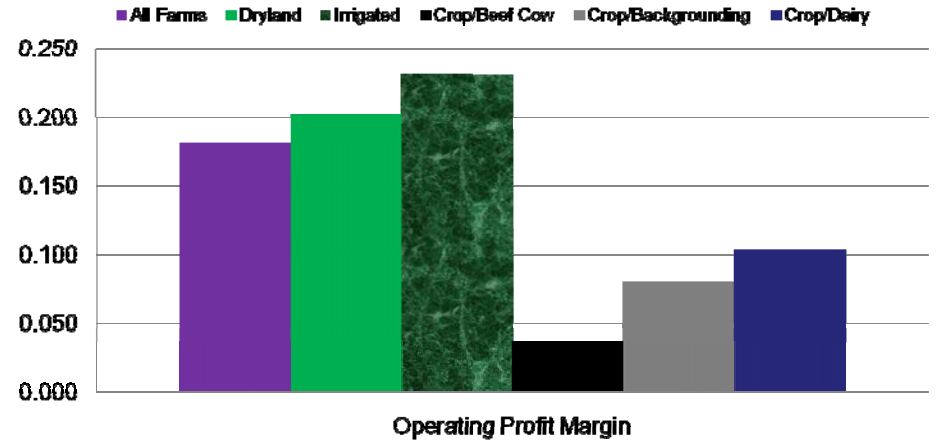
# Factors Contributing to Low Beef Cow Inventories

- ✓ Other factors mitigating impact of higher beef prices:
  - Feed costs are relatively high and volatile
  - Drought in south and southwest is limiting expansion in those areas
  - Land use factors are playing an increasingly important role (e.g., hay production versus crop production)
  - Capital requirements are relatively high (e.g., land values; breeding stock)
  - Many cow-calf producers are not at a life stage in which they are willing to take on more labor or debt
  - Regulatory and environment challenges have increased in many regions

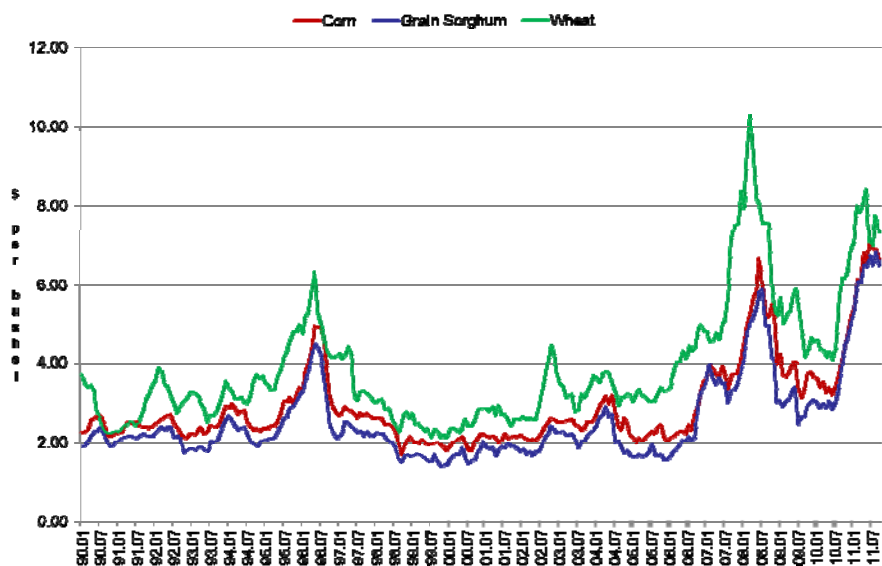
# Relative Profitability Kansas Farm Management Association (KFMA) Farms



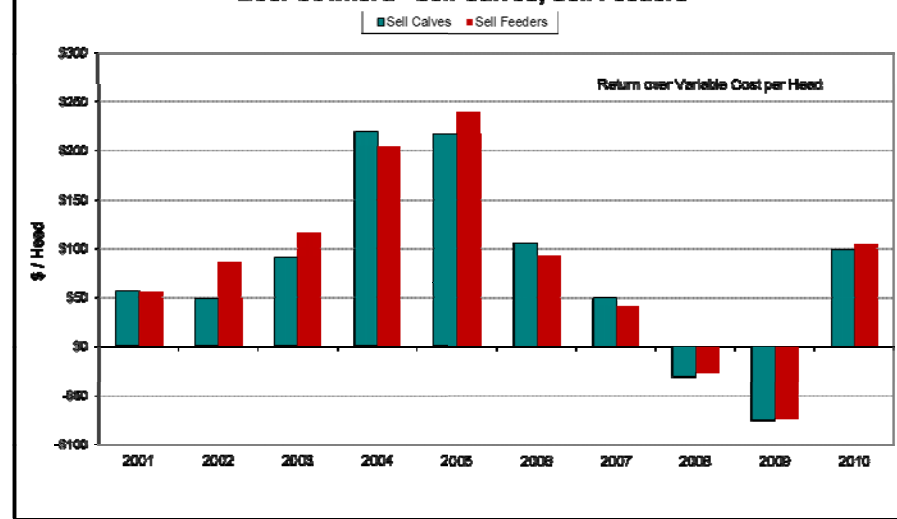
# Profit Margin by Farm Type KFMA, 2006 to 2010 Averages



**Historical Feed Grain Prices**



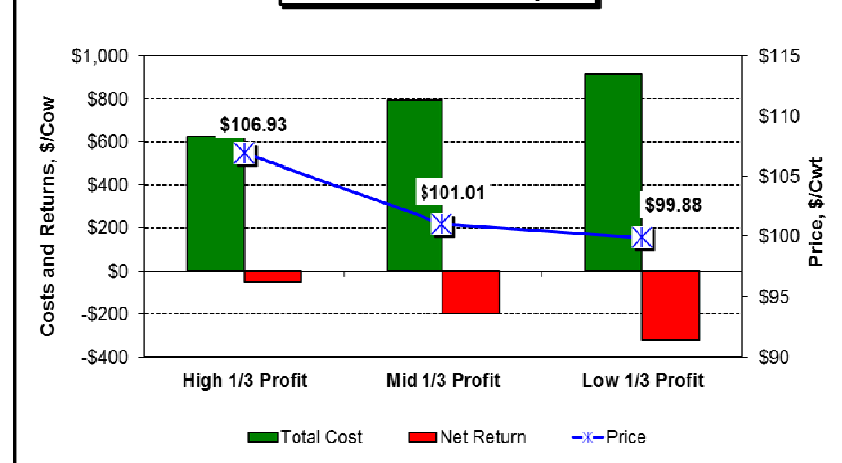
**Kansas Farm Management Association  
Beef Cowherd - Sell Calves; Sell Feeders**



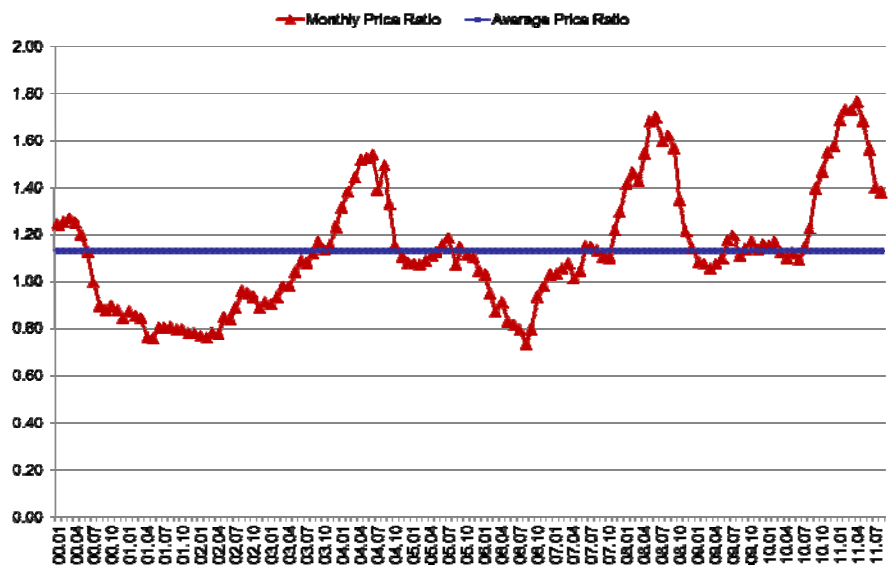
## Enterprise Efficiency and Profitability

- Data for 55 KFMA farms with continuous beef cow enterprise information from 2006 to 2010 was used to examine long-run enterprise efficiency and profitability differences.
- The average farm in the high profit group was 46 percent larger than the average farm in the low profit group.
- The high profit group sold lighter calves and received a higher price.
- Feed cost, which included summer pasture cost, and labor cost accounted for 47 percent (\$125 per cow) and 21 percent (\$55 per cow) of the difference in net return per cow between the low profit and high profit groups.

**KFMA Beef Cow Enterprise**

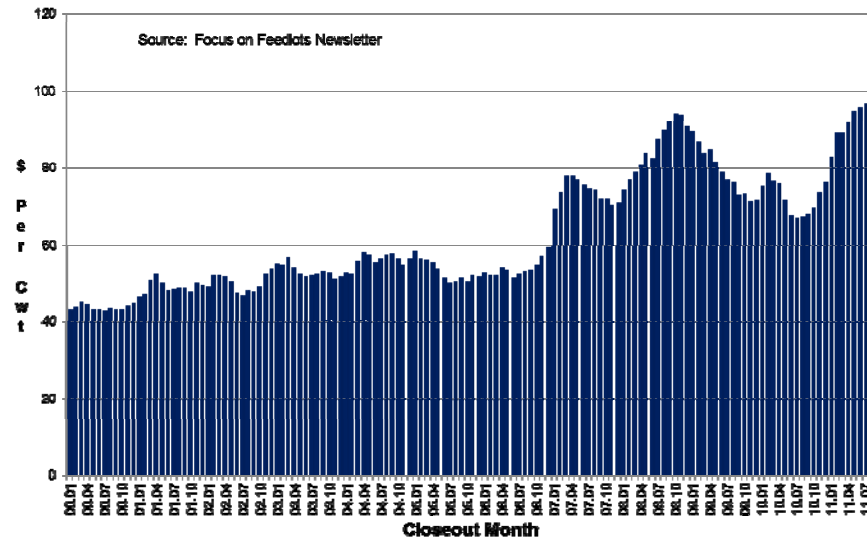


### Corn to Alfalfa Price Ratio



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### Feeding Cost of Gain for Steers



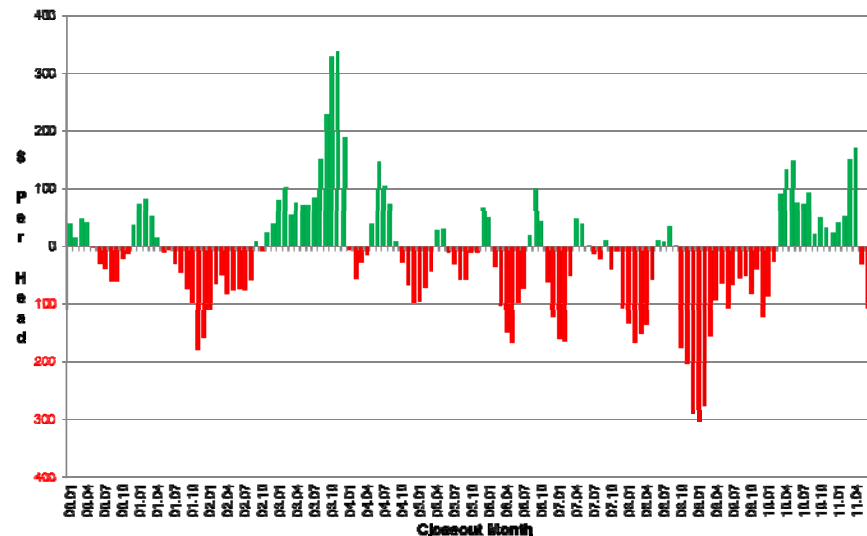
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## Factors Impacting Feeding Cost of Gain

Source: Net Return Series, Kansas State University	Change Analyzed	Per Cwt Impact
Feed Conversion (Index)	+0.10	\$1.00
Corn Price (\$/bu)	+0.10	\$1.12
Alfalfa Price (\$/ton)	+5.00	\$0.35

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### Historical Net Returns for Finishing Steers



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## World Production and Consumption of Beef

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## Increasing Consumption of Animal Products

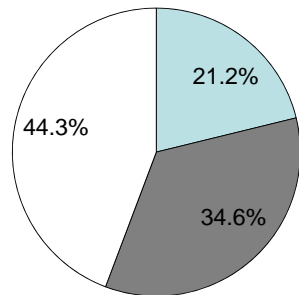
- ✓ With rising global incomes and increased diet diversification, world per capita meat consumption has been increasing steadily over the last three decades.
- ✓ Between 1990 and 2010, total per capita consumption of beef, pork, and poultry trended upward at 1.2 percent annually.
- ✓ However, the trend in per capita beef consumption has been negative since 1990 (-0.6 percent per year).

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## World Meat Production

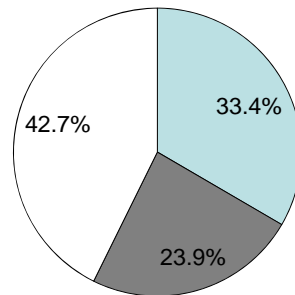
1990 Composition of World Meat Production

□ Poultry ■ Beef □ Pork



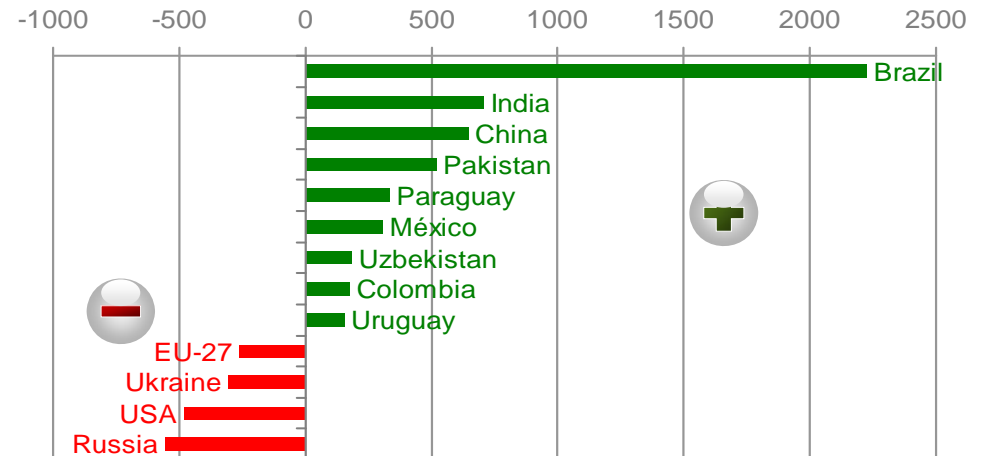
2010 Composition of World Meat Production

□ Poultry ■ Beef □ Pork

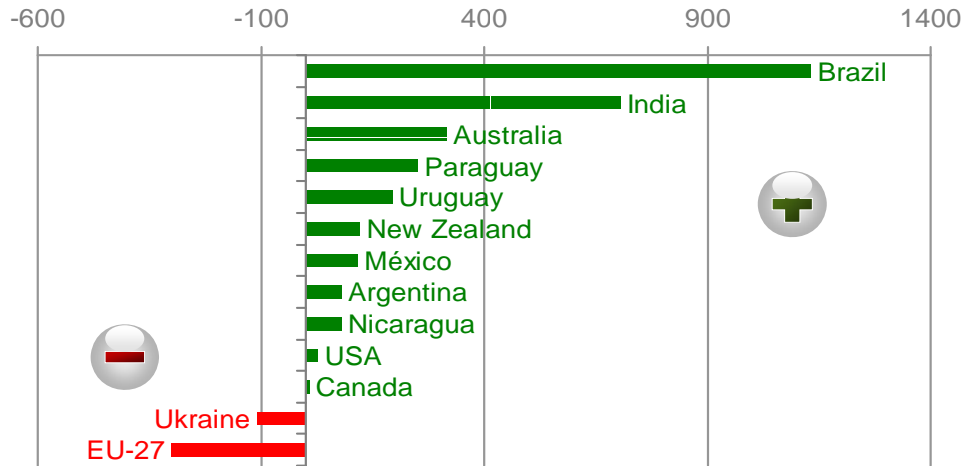


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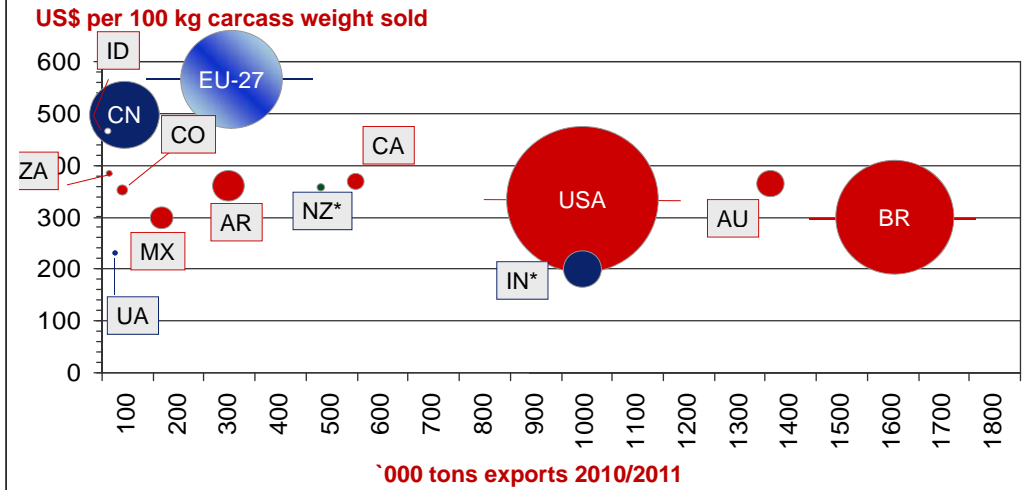
## Beef Production Winners & Losers; 2011 vs. 2002 (1,000 t)



### Beef Export Winners and Losers; 2011 vs. 2002 (1,000 t)

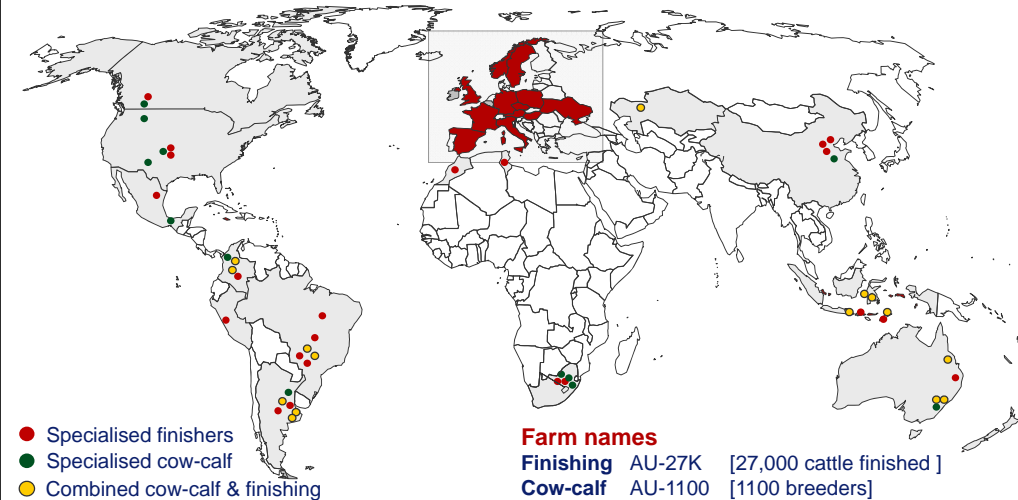


### Costs, Exports, and Production; 2010



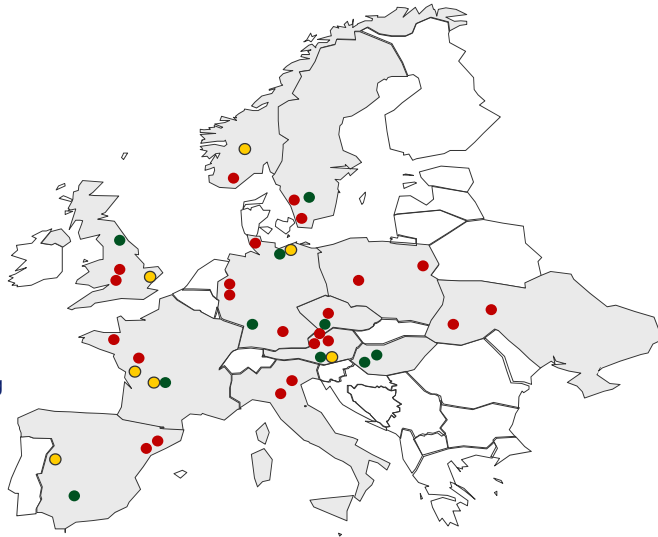
### International Benchmark Comparisons – Cow Calf

### Where the farms are located (world except Europe)

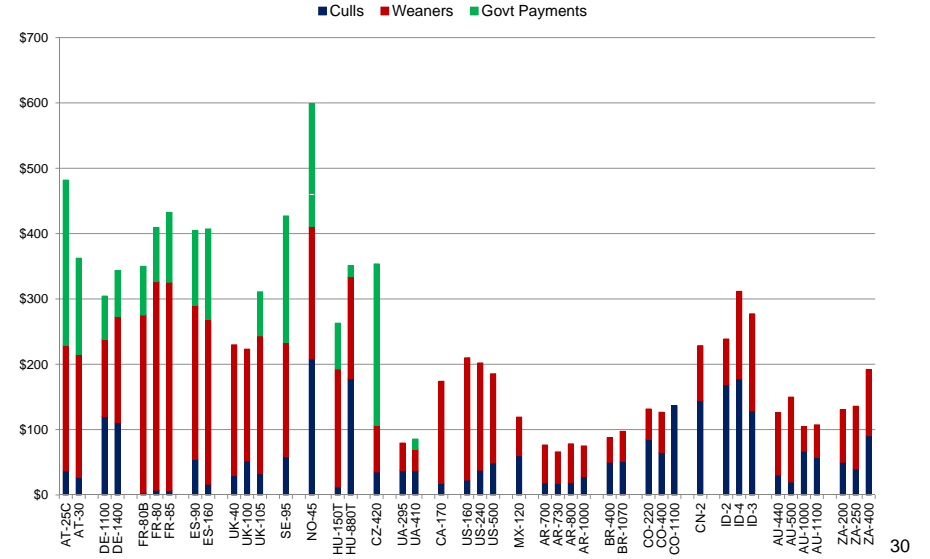


# Where the farms are located (Europe)

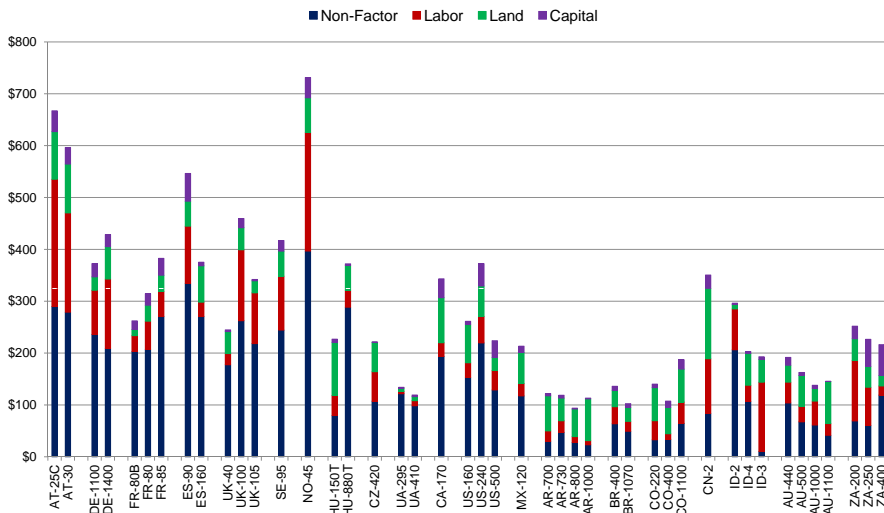
- Specialised finishers
- Specialised cow-calf
- Combined cow-calf & finishing



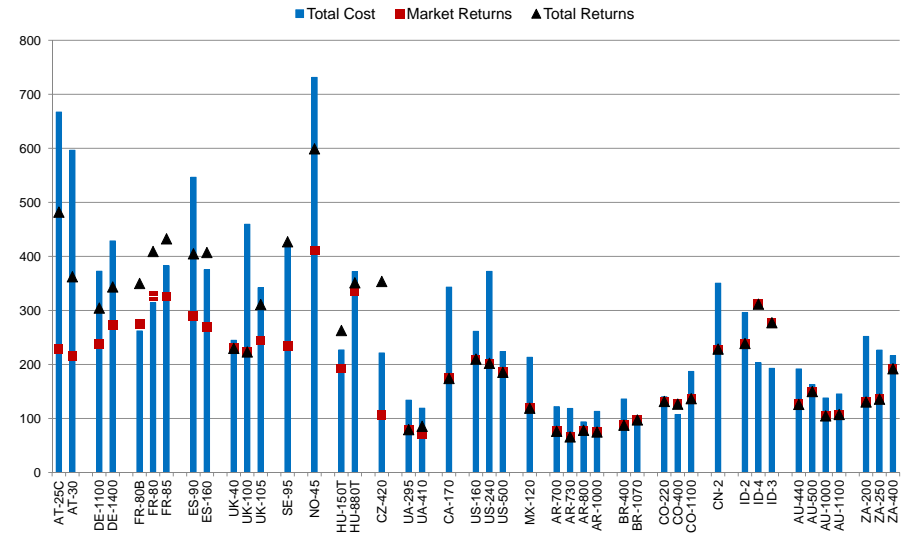
## Total Returns by Source, 2009. (USD per 100 kg of live weight sold)



## Breakdown of Total Cost, 2009. (USD per 100 kg of live weight sold)



## Total Cost and Returns, 2009. (USD per 100 kg of live weight sold)

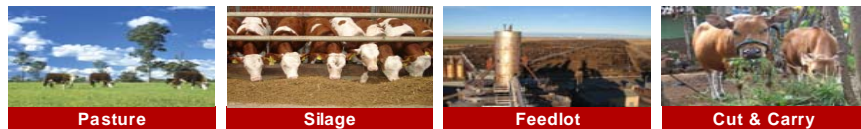


# International Benchmark Comparisons – Beef Finishing

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## Production Finishing Systems – Animal Origins

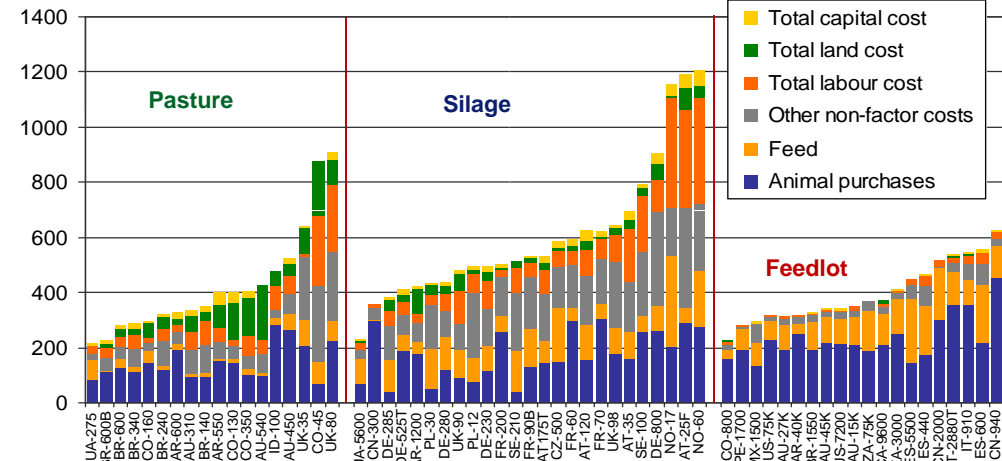
	Dairy origin	Cow-calf origin
<b>Animal type</b> <i>Young animals (calves, weaners)</i>	<ul style="list-style-type: none"> <li>Calves</li> <li>7 days Holstein</li> </ul>	<ul style="list-style-type: none"> <li>'Starter'</li> <li>2 months Simmental</li> </ul>
<b>Animal type</b> <i>Pre-finished backgrounders/stockers/stores</i>	<ul style="list-style-type: none"> <li>Back-grounders</li> <li>6-7 months</li> <li>190 kg</li> </ul>	<ul style="list-style-type: none"> <li>Back-grounders</li> <li>5-6 months</li> <li>190-200 kg</li> </ul>
<b>Animal type</b> <i>Finished slaughter cattle</i>	<ul style="list-style-type: none"> <li>Bulls</li> <li>18-19 months</li> <li>600-690 kg</li> </ul>	<ul style="list-style-type: none"> <li>Bulls</li> <li>17-18 months</li> <li>650-720 kg</li> </ul>
		<ul style="list-style-type: none"> <li>Weaners 6-9 months</li> <li>Beef breeds and crosses</li> </ul>
		<ul style="list-style-type: none"> <li>Backgrounders</li> <li>11-12 months</li> <li>320-360 kg</li> </ul>
		<ul style="list-style-type: none"> <li>Steers</li> <li>15-16 months</li> <li>550-610 kg</li> </ul>



	Pasture	Silage	Feedlot	Cut & Carry
<b>Feed % in dry matter</b>	> 30% pasture	> 30% silage and other forages	> 50% grains and other energy feed	> 30% freshly cut grass & other vegetation
<b>Management/Housing System</b>	Outdoor year round or part of the year	Closed or semi-open barns with slatted floors and/or straw bedding	Confined, large, open pens, partially with sun-covers	Mix of pens and grazing of paths and paddies
<b>Extent of purchase feed</b>	Low	Medium	High	Low
<b>Type of animal</b>	Mainly steers (and heifers)	Mainly bulls (and heifers)	Mainly steers (and heifers)	Mainly bulls (and heifers)
<b>Main locations</b>	Southern Hemisphere, Ireland, UK	Europe, China, increasingly South America	North America, Australia, Italy, Spain, South Africa, incr. South America	Asia and Africa
<b>Farm sizes</b>	Small to large	Medium	Large 1,000-50,000 head one time capacity	Small

## Total Cost by Production Systems, Finishing

US\$ per 100 kg carcass weight sold



## Summary

- ✓ Lowest beef and beef cow inventories in decades resulting in relatively high long-run price forecasts.
- ✓ Beef farms have not been as profitable as other types of farms in recent years.
- ✓ The world consumption of beef has declined in the last 20 years.
- ✓ Based on recent international comparisons, beef cow and finishing farms in the U.S. are competitive on a cost basis with farms in other major regions.

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## Contact Information

- Contributor Site – Langemeier
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