



## AN IMPORTANT ECONOMIC QUESTION – HOW LARGE SHOULD THE BUSINESS BE?

**P The tenancy in agriculture has been toward larger units**

- ▶ Dairy farms in the United States
  - In the last 30 years, the average dairy farm size has increased by over four fold
  - This amounts to a growth of 3.2 % annually
  - In the past 10 years there has been almost a doubling in cows per farm
    - The main growth has been in the farms with over 500 cows

**P There are alternatives to growing the farm to remain competitive**

- ▶ Becoming very efficient with tight cost control
- ▶ Moving into niche or specialized markets to achieve higher prices (e.g., organic production)
- ▶ Better marketing
- ▶ Using off-farm income sources

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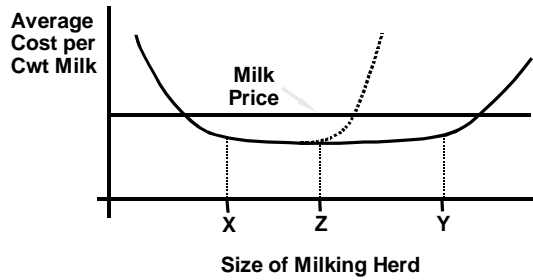
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## WHAT DOES THE LONG-RUN AVERAGE COST CURVE LOOK LIKE?



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## FACTORS IMPACTING THE LONG-RUN COST CURVE

**P Factors causing it to decline**

- ▶ Non-size neutral technologies
- ▶ Spreading the investment costs over more units
- ▶ Improvements in management skills and ability to specialize
- ▶ Economies in purchasing power
- ▶ Better marketing options

**P Factors causing it to increase**

- ▶ Lost of management control
- ▶ Logistics costs
- ▶ Environmental costs
- ▶ Local community costs

**P Very little research is being conducted currently on this topic**

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## LARGE OPERATIONS COMPARED TO SMALLER ONES

TelFarm Project, Michigan, 2003

	<u>&gt;100 Cows</u>	<u>250+ Cows</u>
Aver Number of Cows	69	423
Number of Operators	1.2	1.8
Hours of Labor Hired	2,047	19,356
Ending Total Assets (\$)	560,867	2,574,526
Debt to Asset Ratio (%)	26	50
Milk Price (\$/cwt)	12.49	12.67
Milk Production (lbs/cow)	18,145	23,444
Net Cash Farm Inc (\$)	43,918	211,013
Net Farm Income (\$)	17,185	104,692
Labor & Mngt Earnings (\$)	3,921	79,083
Return on assets (%)	-1.3	3.6
Family Living Draw (\$)	41,519	94,359

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## WHAT HAPPENS WHEN A DAIRY FARM GROWS?

**P This was the focus of recent research project**

- Study conducted in Wisconsin and Michigan on farms that undertook a major expansion (a one-time growth of 20% or more in milking herd size)
  - MS thesis of Gregg Hadley
  - Case study of 20 herds (these are the survivors)
- Issues studied in the research project
  - What were the primary reasons for growing
  - What impact did growth have on milk production, reproduction, herd health, and the cropping program
  - What effect did it have on labor management and human resource management
  - How did it influence the business financially
  - What were the effects of environmental compliance, public relations, and zoning

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## PRE AND POST-FARM COMPARISONS

	<u>Pre</u>	<u>Post</u>	<u>% Change</u>
Herd size (cows)	296	569	92
Crop acreage	978	1,069	9
Cows per acre	0.30	0.53	77
Rolling Herd Average Milk Shipped (lbs/yr)	21,900	23,064	5
Number of managers	2.5	3.4	36
Total dairy employees	5.1	8.5	67
Total Employees	7.0	10.7	53

Initial farm size ranged from 60 to 1,071 cows

One half of the farms had no prior major expansion experience

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