An Overview of the U.S. Swine Industry

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The U.S. Pork Industry

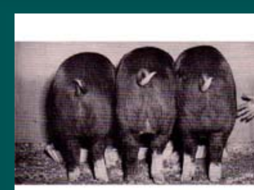
- Supports 600,000 domestic jobs
- Generates more than $64 billion annually in total economic activity
- 10.9 million litters fed out annually
- U.S. pigs consume 1.065 billion bushels of corn valued at $2.558 billion
- Feed supplements and additives = $2.522 billion

NPPC testimony; 10/99


YESTERDAY



YESTERDAY

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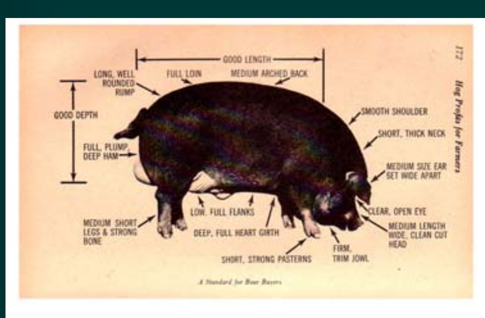


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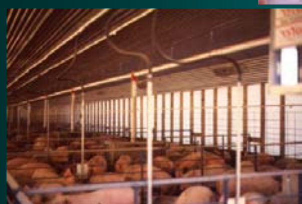
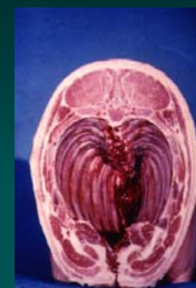
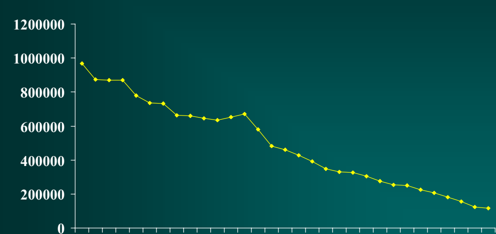
TODAY





Yesterday Today

Number of U.S Pig Operations



1968 - 2003

U.S. Pork Industry Structure Study, 2003

Estimated Total Number of Operations & Share of U.S. Slaughter in 2003 by Size Category

Firm size (thousand head mktd. annually)	Number of operations	Market share
Less than 1	59,950	1%
1 - 3	6,630	8%
3 - 5	950	4%
5 - 10	1,526	9%
10 - 50	915	19%
50 - 500	134	19%
500+	25	40%
Total	70,130	100%

University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes.

U.S. Pork Industry Structure Study, 2003

Share of Annual U.S. Hog Slaughter by Year and Size Category

Firm size (thousand head mktd. annually)	1988	1991	1994	1997	2000	2003
Less than 1	32%	23%	17%	5%	2%	1%
1 - 2	19	20	17	12	7	8
2 - 3	11	13	12	10	5	
3 - 5	10	12	12	10	7	4
5 - 10	9	10	12	10	10	9
10 - 50	12	13	13	16	18	19
50+	7	9	17	37	51	59

University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes

U.S. Pork Industry Structure Study, 2003

Number of Large Firms Producing Hogs

Firm size (thousand head mktd.)	1994	1997	2000	2003
50 - 500	57	127	136	134
500+	9	18	20	25

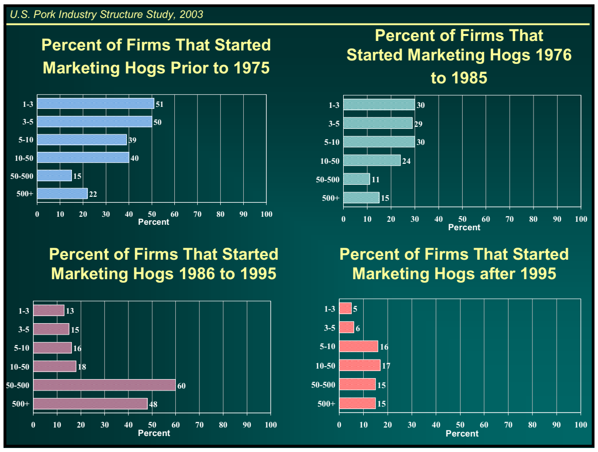
University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes.

Percent of U.S. Slaughter Hogs Marketed by Large Firms

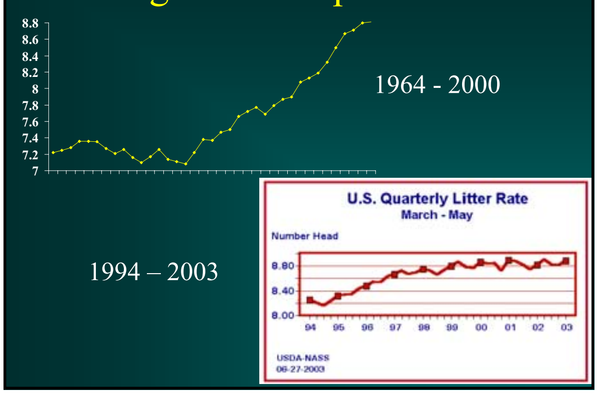
Firm size (thousand head mktd.)	1994	1997	2000	2003
50 - 500	7%	13%	17%	19%
500+	10%	24%	35%	40%

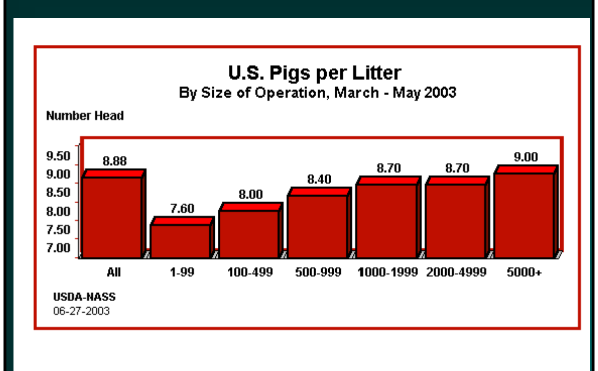
Percent of U.S. Slaughter Hog Marketings by Type of Owner

Operation wholly or partly owned by:	Firm Size (thousand head mktd.)	
	50 - 500	500+
Veterinarian	0.20%	1.02%
Feed company	1.23%	2.82%
Packer or processor	0.47%	23.30%
Foreign firm or person	0.43%	3.54%



Pigs Weaned per Litter





Sow Efficiency

- 2.3 litters/yr
  - (breed 1/1; farrow 4/24; wean 5/12; breed 5/16; farrow 9/8; wean 9/25; breed 9/30; farrow…)
- 10.8 pigs/litter
- 25 pigs/sow/yr
  - (33,000 sows = 825,000 pigs/yr)

Percent of Litters Sired by Artificial Insemination 1997, 2000, 2003

Firm size (thousand head mktd. annually)	1997	2000	2003
1 - 3	10%	23%	60%
3 - 5	21	33	66
5 - 10	39	40	79
10 - 50	58	65	91
50 - 500	75	95	98
500+	84	91	100

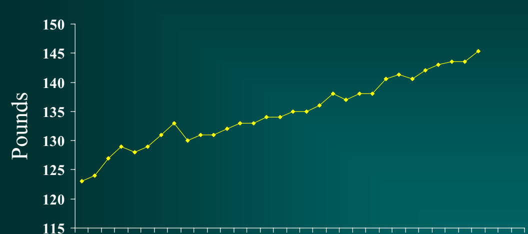
U.S. Pork Industry Structure Study, 2003

Where Firms Acquired Semen
(percent of firms responding in size category)

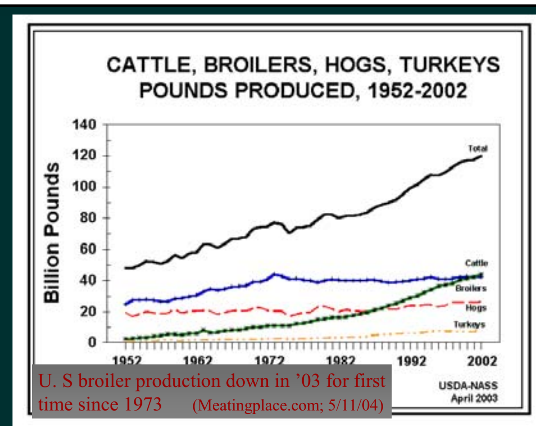
	Firm Size (thousand head mktd.)					
	1-3	3-5	5-10	10-50	50-500	500+
Collected by firm	18%	14%	16%	30%	23%	87%
Purchased	76	76	76	61	68	26
Part-owned stud	6	7	6	8	14	22
Other		3	1	1		

University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes.

Retail Meat per Pig



1955 - 2000



Marketing

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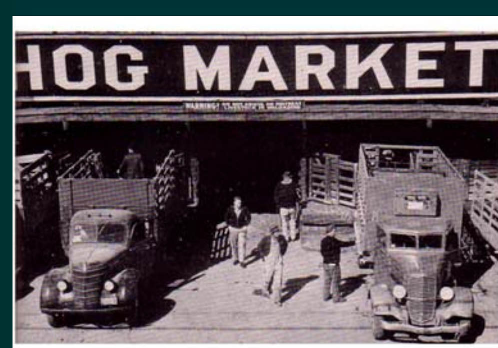

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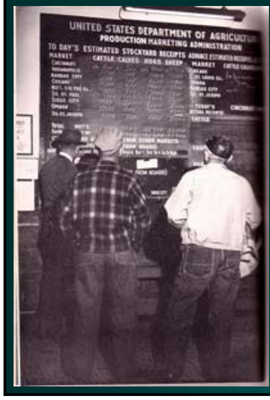
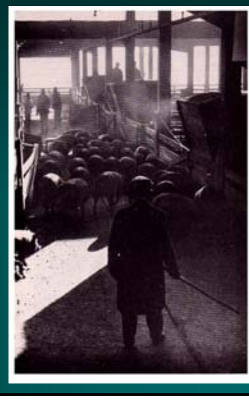




Hormel Grid -- April 2000

Lean Pork Value Table

Carcass Weight	1 0.5/ Down	1 0.51- 0.7	2 0.71- 0.9	3 0.91- 1.1	4 1.11- 1.3	5 1.31- 1.5	6 1.51/ Up
145/Down	45.00%	45.00%	45.00%	45.00%	45.00%	33.00%	20.00%
146-152	45.00%	45.00%	45.00%	45.00%	45.00%	33.00%	20.00%
153-159	80.00%	83.00%	83.00%	79.00%	73.00%	61.00%	48.00%
160-166	91.00%	94.00%	94.00%	90.00%	84.00%	72.00%	59.00%
167-173	98.00%	101.00%	101.00%	97.00%	91.00%	79.00%	66.00%
174-180	104.00%	106.00%	106.00%	103.00%	97.00%	85.00%	72.00%
181-187	105.00%	108.00%	108.00%	104.00%	98.00%	86.00%	73.00%
188-194	105.00%	108.00%	108.00%	104.00%	98.00%	86.00%	73.00%
195-201	105.00%	108.00%	108.00%	104.00%	98.00%	86.00%	73.00%
202-208	105.00%	108.00%	108.00%	104.00%	98.00%	86.00%	73.00%
209-215	105.00%	108.00%	108.00%	104.00%	98.00%	86.00%	73.00%
216-222	102.00%	105.00%	105.00%	101.00%	95.00%	83.00%	70.00%
223-229	94.00%	97.00%	97.00%	93.00%	87.00%	75.00%	62.00%
230-243	88.00%	91.00%	91.00%	87.00%	81.00%	69.00%	56.00%
244/UP	81.00%	84.00%	84.00%	80.00%	74.00%	62.00%	49.00%

Defines the Oct 1998 premium range

Defines the April 2000 premium range

U.S. Pork Industry Structure Study, 2003

How Firms Marketed Slaughter Hogs, 2003
(percent of firms in size category)

	Firm Size (thousand head mktd.)					
	1-3	3-5	5-10	10-50	50-500	500+
Load by load	77%	70%	66%	55%	13%	33%
Negotiated contract	4	6	5	5	82	76
Group contract	13	12	16	13	57	0
Own packing plant	3	2	1	2	3	29
Other	4	6	5	5	4	0

University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes.

U.S. Pork Industry Structure Study, 2003

Number of Different Packers Sold to in 2003
(percent of firms responding in size category)

	Firm Size (thousand head mktd.)					
	1-3	3-5	5-10	10-50	50-500	500+
1 packer	58%	47%	42%	38%	15%	24%
2 packers	32	36	33	33	10	10
3 packers	10	14	17	13	61	19
4 packers	1	2	7	9	8	10
5 packers		1		4	6	10
6 packers				2		5
7 packers						19
8 packers						5

University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes.

U.S. Pork Industry Structure Study, 2003

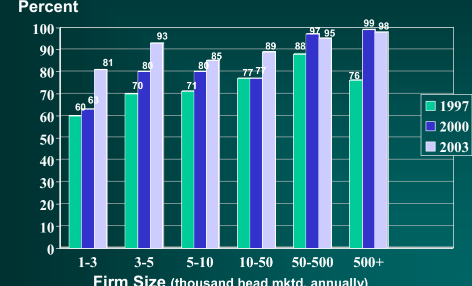
Distance Hogs Are Hauled for Slaughter
(percent of firms responding in size category)

	Firm Size (thousand head mktd.)					
	1-3	3-5	5-10	10-50	50-500	500+
Less than 50 mi.	42%	29%	21%	18%	4%	0
50-99 mi.	24	22	31	21	66	20
100-149 mi.	17	19	20	26	11	44
150-199 mi.	9	16	14	17	6	24
200-299 mi.	5	10	9	10	6	4
300 mi. or more	3	4	6	7	7	8

University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes.

U.S. Pork Industry Structure Study, 2003

Percent of Hogs Sold on Carcass Merit Basis

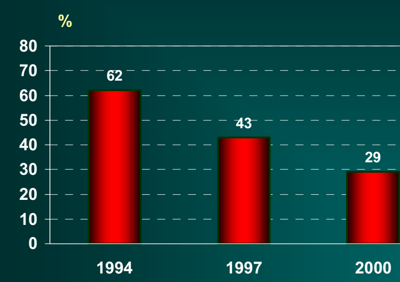


University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes.

Percent of Hogs Sold under Marketing Contracts
(average of percentages reported by size category)

	Firm Size (thousand head mktd.)					
	1-3	3-5	5-10	10-50	50-500	500+
Spot market - negotiated			29%	26%	11%	15%
Contract - futures market			8	11	9	2
Formula - hog prices			32	37	39	68
Formula - meat prices			7	5	8	4
Formula - feed/ledger			6	5	9	1
Formula - feed/no ledger			4	5	5	6
Window - ledger			1		2	
Window - no ledger			3	5	16	4
Other			7	5	2	

Percent of Hogs Sold on Spot Market



Jan. '04: **11.6%** sold on spot market

Jan. '04: Prices of more than half the hogs in U.S. still determined by spot market

Percent of U.S. Hogs Raised under Contract, 1997-2003

Firm Size (thousand head mktd)	Farrowed			Finished		
	1997	2000	2003	1997	2000	2003
1 - 50	1%	2%	7%	8%	3%	5%
50 - 500	4	7	5	7	10	11
500+	11	13	17	16	21	25
Total	17	22	29	30	34	41

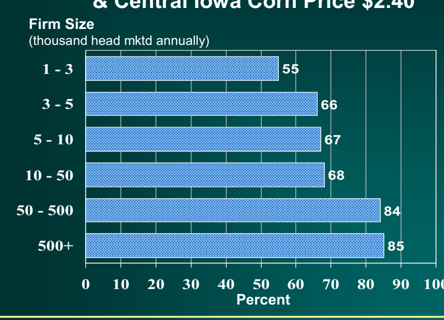
When Growers Began Contract Production

	Percent of Growers
Before 1985	3%
1985 - 1989	5
1990 - 1994	27
1995 - 1999	47
2000 - 2004	18

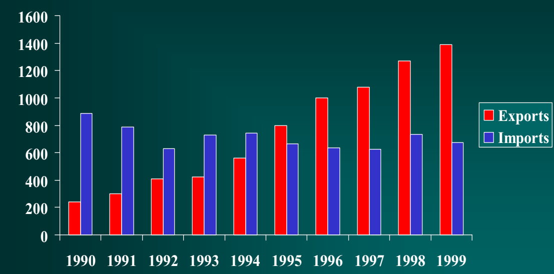
Grower Plans after Contract Expires

	Percent of Growers
Stop producing hogs	2%
Contract a different company	9%
Continue with same company	80%
Become independent	4%
Other	5%

Percent of Firms That Will Stay in Business until 2008 with Average Hog Price $40-42 & Central Iowa Corn Price $2.40



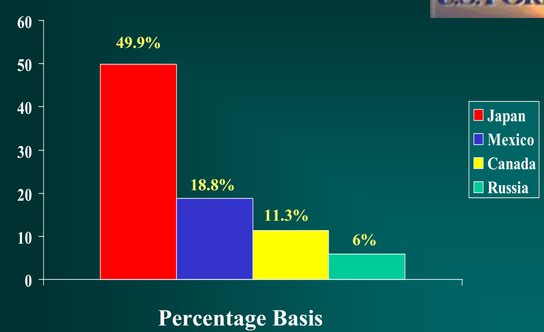
U.S. Pork Exports and Imports



Exports

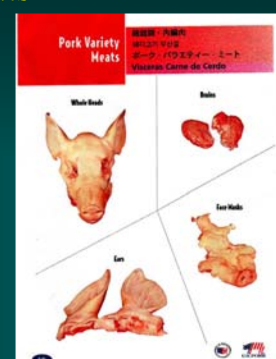
- Pork exports have grown annually nearly every year since 1990
- 2004 – expected to grow 21% to 2.07 billion pounds

Top U.S. Customers



2003 Variety Meats

- Mexico
- Hong Kong/China - 4th quarter- esp. stomachs and feet
- Canada
- E.U. – grew 55% in volume and 107% in value



Imports

2003 – record imports for 9th consecutive year

7.4 million hogs

Virtually all from Canada, followed by Denmark, Poland

66.8% weaner-feeders

7.4% of ’03 U.S slaughter

U.S. Pork Industry Structure Study, 2003

Firms Finishing Canadian-born Pigs

Firm Size (1,000 head mktd annually)	Percent of Firms
1 - 3	5%
3 - 5	4%
5 - 10	10%
10 - 50	10%
50 - 500	61%
500+	43%

University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O’ Lakes.

U.S. Pork Industry Structure Study, 2003

What Do You See as the Greatest Challenges to the US Pork Industry over the Next 5 Years?

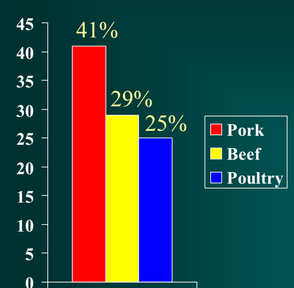
	Firm Size (thousand head mktd)		
	1 - 50	50 - 500	500+
Air quality regulations	43%	23%	65%
Water quality regulations	43	25	39
Restrictions on antibiotic use	40	11	35
Civil suits against production units	34	23	74
Animal rights issues	45	31	61
Packer concentration	54	18	4
Vertical integration	50	14	4
Over-supply of hogs	58	87	100
Adoption of COOL	20	11	9

University of Missouri, Iowa State University, Pork magazine, Pig Improvement Company, National Pork Board, Monsanto Choice Genetics, and Land O' Lakes.

U.S. Pork Industry

- U.S. is world's #2 exporter
- U.S. is Lowest Cost Producer
- 1999 domestic demand up 2.1% from 1998 and continues upward
- 1998 domestic demand was up 6.7%

World Consumption

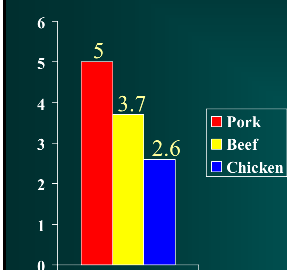


4/2001 - USDA

- Between 1980-2000, volume of pork consumed in the world rose 73%

-USDA Foreign Agriculture Service

U.S. Consumption



Eatings per week

- Fresh loins and chops
- Processed pizza toppings
- Bacon
- Sausage
- Lunchmeat
- Ham (30%)

Have today's show standards taken the industry too far in leanness?

- Swine industry has made tremendous progress in producing leaner hogs – 35% in past 15 years!
- Muscle volume and loin eye size has also increased dramatically at the same time.
- Market weights have continued to increase:

1960	1980	2000
236 lbs.	242 lbs.	263 lbs.

Biosecurity

- "The cornerstone of disease prevention"
- Prevention of entrance of infection onto the farm
- Controlling the spread of disease within the farm

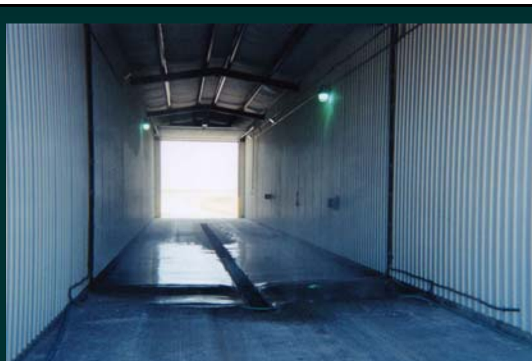
Perimeter fencing – outside fence (entire complex)
- barbed wire

Two-gate entrance –

First gate: lockable, open only during working hours

Second gate: Keypad with code

Inside fence (individual sites): hurricane fencing



Disinfection Station

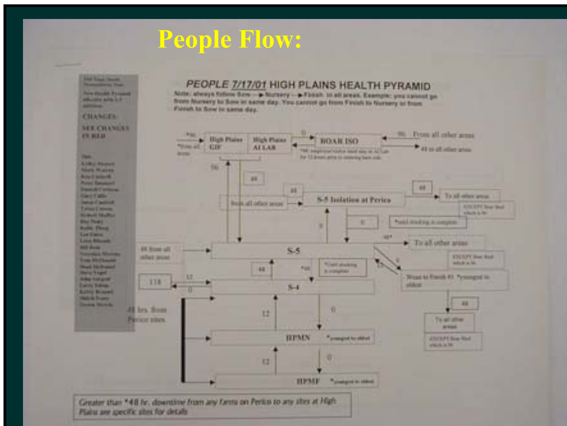
Dead animal and trash removal

"Pass through" window – in office, ALL items (including employees lunches) must pass thorough

Shower: "Dirty side"

Shower: "Clean Side"

People Flow:



Transfer Station: All outgoing animals (markets) sent to transfer station via company trucks

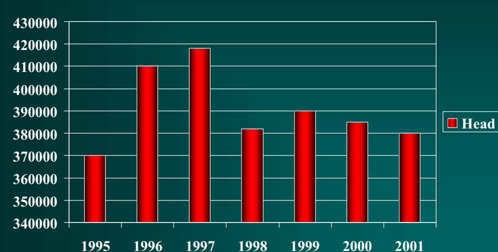
Transfer Station

Transfer Station: Pigs walk through and are picked up by contract hauler to go to packing plant

Animal Welfare Concerns

- Restaurants (McDonald's, Burger King)
- Florida law to outlaw gestation crates
- Advantages and disadvantages to crates
- European precedent
- Future???

Daily Hog Slaughter Capacity



Consumer Demands

- Less price sensitive, but demand quality
- Trend in new food products is a focus on good taste and product enhancement(bacon)
- People want to spend less time planning, buying, preparing and cleaning up meals
- Take-out has doubled since 1984
- Convenience will be "king"

Eating Trends

- 55% of all food dollars are spent on food prepared outside the home
- 53% of all meals are prepared at restaurants
- 25% of calories are consumed from snack food
- 15% of all food is now consumed in automobiles

How Consumers Choose Food

1.	Taste	89%
2.	Nutrition	76%
3.	Product Safety	75%
4.	Price	64%
5.	Storability	45%

Consumer Attitudes & The Supermarket Survey
Food Marketing Institute, 1998

BACON...

- 2000 belly prices added $5 per hog to producers
- 35% of bacon purchased today is eaten at meals other than breakfast
- 1999-00: supermarket bacon sales increased 45%
- Bacon use in restaurants grew 7% every year from 1997-1999
- Adkin’s, Southbeach diets, “Burger Boredom and Chicken Fatigue”