

CONCENTRATION OF AGRICULTURAL MARKETS

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Mary Hendrickson and William Heffernan

Department of Rural Sociology -- University of Missouri

Columbia, MO 65211 (573)882-3776

e-mail: HendricksonM@missouri.edu

email: HeffernanW@missouri.edu

CR4 is the concentration ratio (relative to 100%) of the top four firms in a specific food industry.

BEEF PACKERS **CR4 = 83.5%***

1. Tyson (formerly IBP Inc.)	Historical CR4			
2. Cargill (Excel)	1990	1995	1998	2000
3. Swift & Co.	72%	76%	79%	81%
4. National Beef Packing Co.				

Source: *Cattle Buyer's Weekly: Steer & Heifer Slaughter reported in *Feedstuffs* 6/16/03.

Note: Smithfield Foods is the 5th largest beef packer after a series of recent acquisitions.

BEEF FEEDLOTS

	<u>One-time Capacity</u>
1. Cactus Feeders Inc.	500,000
2. ContiBeef LLC	450,000
3. ConAgra Cattle Feeding Co.	440,000
4. Caprock Cattle Feeders	290,000

Source: *Feedstuffs* 9/17/03

PORK PACKERS **CR4 = 64%***

	Historical CR4				
	1987	1989	1990	1992**	2001***
1. Smithfield Foods	37%	34%	40%	44%	59%
2. Tyson Foods (formerly IBP Inc.)					
3. Swift & Co.					
4. Hormel Foods					

**Packers & Stockyards Programs, GIPSA, USDA; February, 1996

*** *Feedstuffs Reference Issue* 2001.

Source: **Feedstuffs* 9/22/03 (includes the Smithfield acquisition of Farmland Foods)

Note: Including Cargill (Excel) and Premium Standard Farms creates a CR6=77%.

PORK PRODUCTION **CR4 = 49%***

	<u>Number of Sows*</u>	<u>Number of Sows In 2001**</u>
1. Smithfield Foods	825,000	Smithfield Foods 710,000
2. Premium Standard Farms	225,000	PSF 211,100
3. Seaboard Corporation	213,600	Seaboard 185,000
4. Prestage Farms	129,000	Triumph 140,000

** *Successful Farming Pork Powerhouses* (October 2001)

Source: * *Successful Farming Pork Powerhouses* (October 2003)

BROILERS CR4 = 56%*

1. Tyson Foods
2. Pilgrim's Pride
3. Gold Kist
4. Perdue

Historical CR4				
1986	1990	1994	1998	2001
35%	44%	46%	49%	50%

Source: *Feedstuffs 12/1/03

TURKEYS CR4 = 51%*

1. Cargill Turkey Products
2. Hormel Foods (Jennie-O Turkey Store)
3. ConAgra (Butterball Turkey Co.)
4. Carolina Turkeys

Historical CR4					
1988	1990	1992	1994	1996	2000
31%	33%	35%	38%	40%	45%

Source: *National Turkey Federation (2003)

ANIMAL FEED PLANTS CR4 = 34%*

1. Land O'Lakes LLC/Purina Mills
2. Cargill Animal Nutrition (Nutrena)
3. ADM Alliance Nutrition
4. J.D. Heiskell & Co.

ANNUAL CAPACITY*

- 12.5 million tons
- 9.0 million tons
- 3.2 million tons
- 2.8 million tons

Source: *Feedstuffs 3/1/04 and Feedstuffs Reference Issue 2003

** If the U.S. total production is 80 million tons as it was in 1999 (*Census of Manufacturing 1999*)

FLOUR MILLING CR4 = 63%**

1. Cargill/CHS (Horizon Milling)
2. ADM
3. ConAgra
4. Cereal Food Processors

Daily Milling Capacity*

- 293,000 cwts
- 288,800 cwts
- 250,100 cwts
- 93,100 cwts

Historical CR4		
1982	1987	1990
40%	44%	61%

Source: * Milling and Baking News 9/7/04

** Total US 24-Hour Milling Capacity is 1,477,000 cwts (*Milling and Baking News 3/2/04*)

SOYBEAN CRUSHING CR4 = unknown

1. ADM
 2. Bunge
 3. Cargill
 4. Ag Processing Inc.
- } CR3=71%*

Historical CR4		
1977	1982	1987
54%	61%	71%

Census of Manufacturing

Source: *Wall Street Journal 7/22/02

ETHANOL PRODUCTION**CR4 = 41%**

Million Gallons Per Year

1. ADM	1070	Historical CR4			
2. Cargill	128	1987	1995	1999	2002
3. Aventine Renewable Energy Inc.	100	73%	73%	67%	49%
4. VeraSun Energy Corporation	100				

Source: http://www.ethanolrfa.org/eth_prod_fac.html

Note: Farmer owned ethanol plants accounted for 1.276 billion gallons per year or 37.3% of total capacity.

DAIRY PROCESSORS

	Annual Sales *
1. Dean Foods	\$8,260 Million
2. Kraft Foods (Majority owner is Philip Morris)	\$4,300 Million
3. Land O'Lakes	\$2,969 Million
4. Schreiber Foods, Inc.**	\$2,200 Million

Source: **Dairy Foods: Dairy 100* (2004)

Notes: ** Saputo Inc. actually is listed as the number four processor in North America, but over 70% of its plants are in Canada. Dairy Farmers of America has slipped out of the top four processors with sales of \$1,392 Million. However, DFA also owns 50% of the sixth largest firm, National Dairy Holdings, which at the time of the merger of Dean and Suiza acquired the joint holdings of DFA and Suiza. Dean controls 30% of the fluid milk market in the United States (*Feedstuffs* 1/19/04). DFA produces 33% of the US milk supply (Hoover's Company Profiles, 9/1/04).

INPUT MARKET NOTES

Monsanto and Pioneer control 60% of the U.S. corn and soybean seed market, which is estimated at \$5 billion. (*New York Times*, 1/6/04).

Mosaic, created by a merger between Cargill and ICM with Cargill owning 67% of the new company, will produce 14.4% of the world's phosphate, and 15.5% of the world's potash. (*Chemical Week Associates* 2/4/04) With this merger, the International Fertilizer Development Center estimates the company will have 50-60% share of the U.S. fertilizer market. (*Feedstuffs* 2/4/04)

Global Phosphate, Nitrogen, Potash and Feed Phosphate Fertilizer Companies

1. Yara (Hydro Agri)	\$4.9 Billion
2. Mosaic (Cargill owns 67% with ICM owning 33%)	\$4.1 Billion
3. PCS	\$2.6 Billion
4. Agrium	\$2.4 Billion
5. Terra (Does not include acquisition of Mississippi Chemical)	\$1.3 Billion

Source: *Feedstuffs* 9/6/04

FOOD RETAILING CR5 = 46%***Supermarket****Grocery Sales***

Historical CR5

1997	2001
24%	38%

1. Wal-Mart Stores	\$66.465 Billion
2. Kroger Co.	46.315 Billion
3. Albertsons, Inc.	31.962 Billion
4. Safeway, Inc.	29.572 Billion
5. Ahold USA, Inc.	25.105 Billion

Source: * *Progressive Grocer's Super 50* (5/1/04) *Progressive Grocer* reports only grocery sales from supermarkets, and does not report general merchandise, drug or convenience sales. In the 4/15/04 issue, it reported that total 2003 supermarket sales were \$432.8 Billion in the US.

WORLD'S TOP GROCERY RETAILERS 2004

1. Wal-Mart Stores (United States)	\$244.5 billion annual sales
2. Carrefour (France)	\$64.7
3. Ahold (The Netherlands)	\$59.2
4. Kroger (United States)	\$51.8
5. Metro (Germany)	\$48.5
6. Tesco (United Kingdom)	\$39.5
7. Costco (United States)	\$38.0
8. Albertsons (United States)	\$35.6
9. Rewe (Germany)	\$35.2
10. Aldi (Germany)	\$33.7

Source: *Supermarket News* 12/29/03

TOP FOOD PROCESSING COMPANIES:

Company	2003 Food Sales	2002 Food Sales
(Fiscal year in parentheses if different from calendar year)	(\$ millions)	(\$ millions)
1. Kraft Foods Inc.	21,907	21,485
2. Tyson Foods Inc. (9/27/03)	21,894	21,285
3. Pepsico Inc.	18,293	17,363
4. ConAgra Foods Inc. (5/25/03)	16,927	22,521
5. Nestle (US & Canada)	13,798	13,110
6. Anheuser-Busch Cos. Inc.	10,984	10,574
7. Mars Inc.	10,000	9,300
8. Sara Lee Corp. (6/28/03)	9,778	9,219
9. General Mills (5/30/04)	9,520	9,206
10. Dean Foods Co.	9,185	8,992

Source: *Food Processing*, Vol. 65(8), August 2004.
