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

BEEF PACKERS CR4 = 81%*

1. Tyson (IBP Inc.)
2. ConAgra Beef Companies
3. Cargill (Excel Corporation)
4. Farmland National Beef Pkg. Co.

Historical CR4

1990	1995	1998
72%	76%	79%

Source: *USDA "Assessment of the Cattle and Hog Industries, 2000.
Note: Smithfield Foods is the 5th largest beef packer after a series of recent acquisitions.

PORK PACKERS CR4 = 59%*

1. Smithfield
2. Tyson (IBP Inc.)
3. ConAgra (Swift)
4. Cargill (Excel)

Historical CR4

1987	1989	1990	1992**
37%	34%	40%	44%

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

Source: *Feedstuffs Reference Issue (2001) and Tyson Annual Report (2001)
Note: Including Farmland Industries and Hormel foods creates a CR6=75%. (NYTimes, 1/7/99)

PORK PRODUCTION CR4 = 46%*

1. Smithfield Foods
2. Premium Standard Farms (ContiGroup)
3. Seaboard Corporation
4. Triumph Pork Group***

Number of Sows In 2001**	
Smithfield Foods	710,000
PSF	211,100
Seaboard	185,000
Triumph	140,000

Source: *USDA Hog and Pig Report (October, 2001) **Successful Farming (October 2001)
*** Farmland provides management and genetics.

BROILERS CR4 = 50%*

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

Historical CR4

1986	1990	1994	1998
35%	44%	46%	49%

Sources: *Feedstuffs Reference Issue (2001) and Omaha World-Herald 9/3/00

TURKEYS **CR4 = 45%***

1. Hormel (Jennie-O Turkeys)
2. Butterball (ConAgra) 3. Cargill Turkeys
4. Pilgrim's Pride

Historical CR4

1988	1990	1992	1994	1996
31%	33%	35%	38%	40%

Source: *National Turkey Federation (2000)

ANIMAL FEED PLANTS **CR4 = 25%**

	ANNUAL CAPACITY
1. Land O'Lakes Farmland Feed LLC/Purina Mills	15.7 million tons
2. Cargill Animal Nutrition (Nutrena)	8.0 million tons
3. ADM (Moorman's)	3.2 million tons
4. J.D. Heiskell & Co.	2.8 million tons

Source: Feedstuffs Reference Issue (2001)

TERMINAL GRAIN HANDLING FACILITIES **CR4= 60%**

1. Cargill
2. Cenex Harvest States
3. ADM
4. General Mills

Facility Capacity in bushels

Cargill	40,054,000
Cenex Harvest States	31,359,000
ADM	30,000,000
General Mills	17,369,000

Source: 2002 Grain and Milling Annual and www.admworld.com
Note: When #5 (Louis Dreyfus) and #6 (ConAgra: Peavey) are included, CR6 = 74%

CORN EXPORTS **CR3 = 81%**

1. Cargill-Continental Grain
2. ADM
3. Zen Noh

Source: farmindustrynews.com, March 2001

SOYBEAN EXPORTS **CR3 = 65%**

1. Cargill-Continental Grain
2. ADM
3. Zen Noh

Source: farmindustrynews.com, March 2001

FLOUR MILLING   CR4 = 61%

1. ADM Milling
2. ConAgra
3. Cargill
4. General Mills

Daily Milling Capacity in bushels

ADM Milling	298,800
ConAgra	250,500
Cargill	222,000
General Mills	93,700

Historical CR4

1982	1987	1990
40%	44%	61%

Source: 2002 Grain and Milling Annual

SOYBEAN CRUSHING   CR4 = 80%*

1. ADM
2. Cargill
3. Bunge
4. AGP

Historical CR4

1977	1982	1987
54%	61%	71%

Census of Manufacturing

Source: *Feedstuffs (9/22/97)

ETHANOL PRODUCTION   CR4 = 49%*

1. ADM
2. Minnesota Corn Processors**
3. Williams Energy Services
4. Cargill

	mil.gal/year
ADM	950
MCP**	140
Williams	135
Cargill	110

www.ethanolrfa.org/prodcap.html

Historical CR4

1987	1995	1999
73%	73%	67%

Source: *www.ethanolrfa.org/prodcap.html
Note: **ADM has 50% equity stake.

DAIRY PROCESSORS

	Annual Sales *
1. Dean Foods (Suiza Foods Corp).	$9,260 Million
2. Kraft Foods (Philip Morris)	$4,000 Million
3. Dairy Farmers of America	$2,858 Million
4. Land O'Lakes	$2,684 Million

Source: *Dairy Foods: Dairy Top 100 (2001)
Note: The Suiza-Dean Foods merger was approved in December, 2001, but with this approval, it appears more distance has been put between Dean Foods and the alliances that Suiza and Dean had with the farmer cooperatives (DFA and Land O'Lakes) than was apparent a year ago.

FOOD RETAILING **CR5 = 38%***

1. Kroger Co.**
2. Albertson's
3. Safeway
4. Wal-Mart**
5. Ahold

TOP 4 FOOD DISTRIBUTORS

Supervalu
Fleming
C&S
McLane

Directory of Wholesale Grocers (2001)

Source: **Progressive Grocer Annual Report of the Grocery Industry* (April 2001)
** Supercenter statistics reduced to include only traditional supermarket items.
Note: *Progressive Grocer* provides somewhat more conservative estimates than other sources. Other sources indicate CR5 as high as 50%.

WORLD'S TOP FOOD AND BEVERAGE COMPANIES 1999

1. Nestle SA	$41,422 million annual sales
2. Philip Morris Companies, Inc.	$31,139 million
3. ConAgra Inc.	$24,594 million
4. PepsiCo, Inc.	$20,367 million
5. Unilever	$20,310 million
6. The Coca-Cola Co.	$19,805 million
7. Cargill, Inc.	$17,143 million
8. Diageo PLC	$16,419 million
9. Mars, Inc.	$14,500 million
10. ADM	$14,283 million

Source: Food Engineering (October 2000)

TOP 10 GLOBAL GROCERY RETAILERS:

	1999 Sales	Number of Countries
1. Wal-Mart – USA	$193,295,000,000	10
2. Carrefour – France	$59,888,000,000	22
3. Ahold – Netherlands	$49,000,000,000	24
4. Kroger – USA	$49,000,000,000	1
5. Metro – Germany	$43,371,000,000	21
6. Target – USA	$36,903,000,000	1
7. Albertson's – USA	$36,762,000,000	1
8. Rewe – Germany	$34,854,000,000	6
9. Edeka – Germany	$28,894,000,000	6
10. ITM – France	$24,894,000,000	9

Source: Institute for Grocery Distribution (UK), www.igd.com.
Note: Sales figures reflect all sales of the company, not just food products. Thus, the rankings are somewhat skewed (e.g. Target which has relatively small food sales). However, large retailers are very involved in the grocery business as indicated above with Wal-Mart and Carrefour both leading in grocery sales as well as general retail sales.