Bioeconomy Impacts on Midwestern Agriculture

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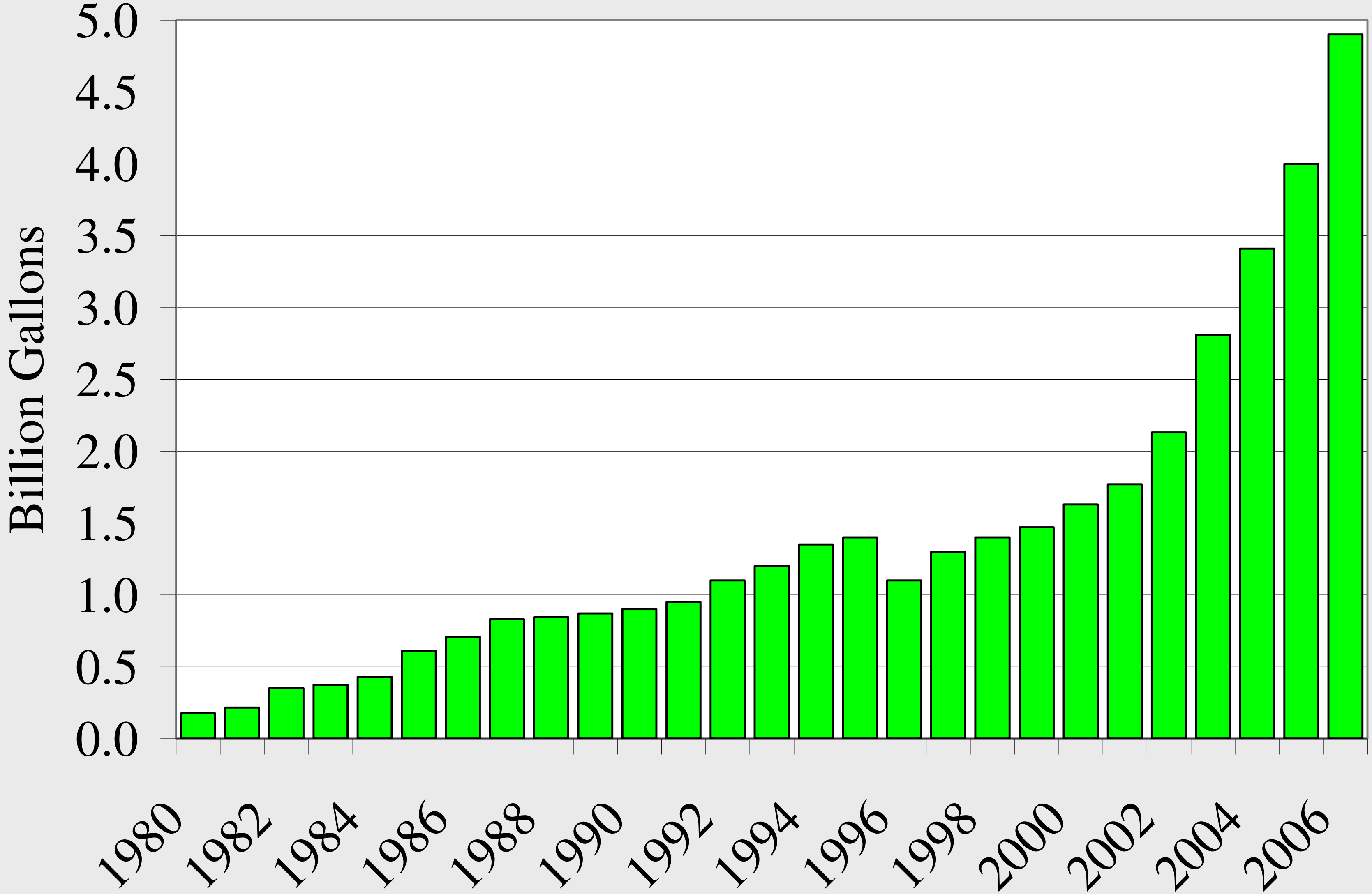
Ethanol Explosion



Source: Renewable Fuels Association

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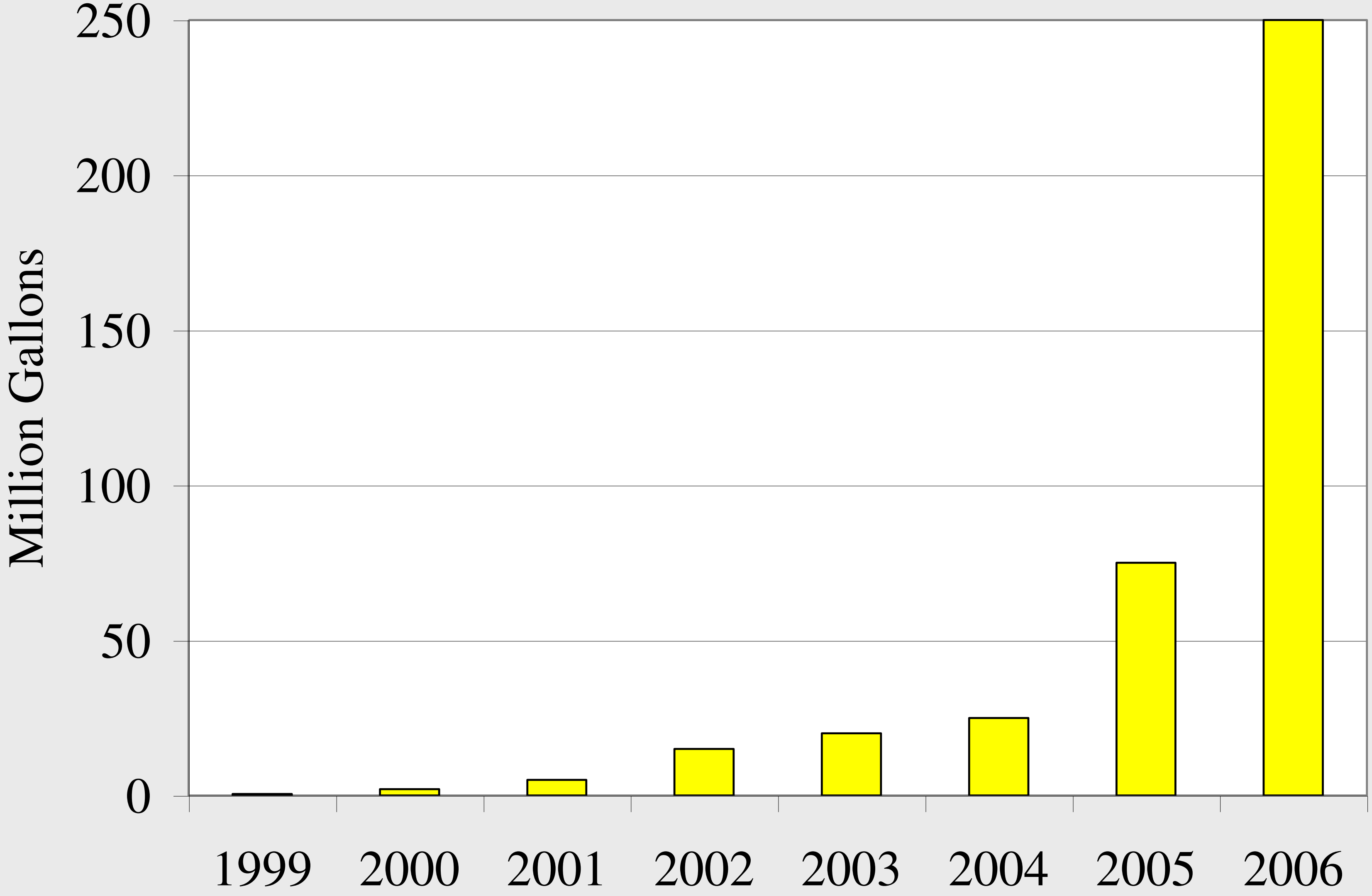
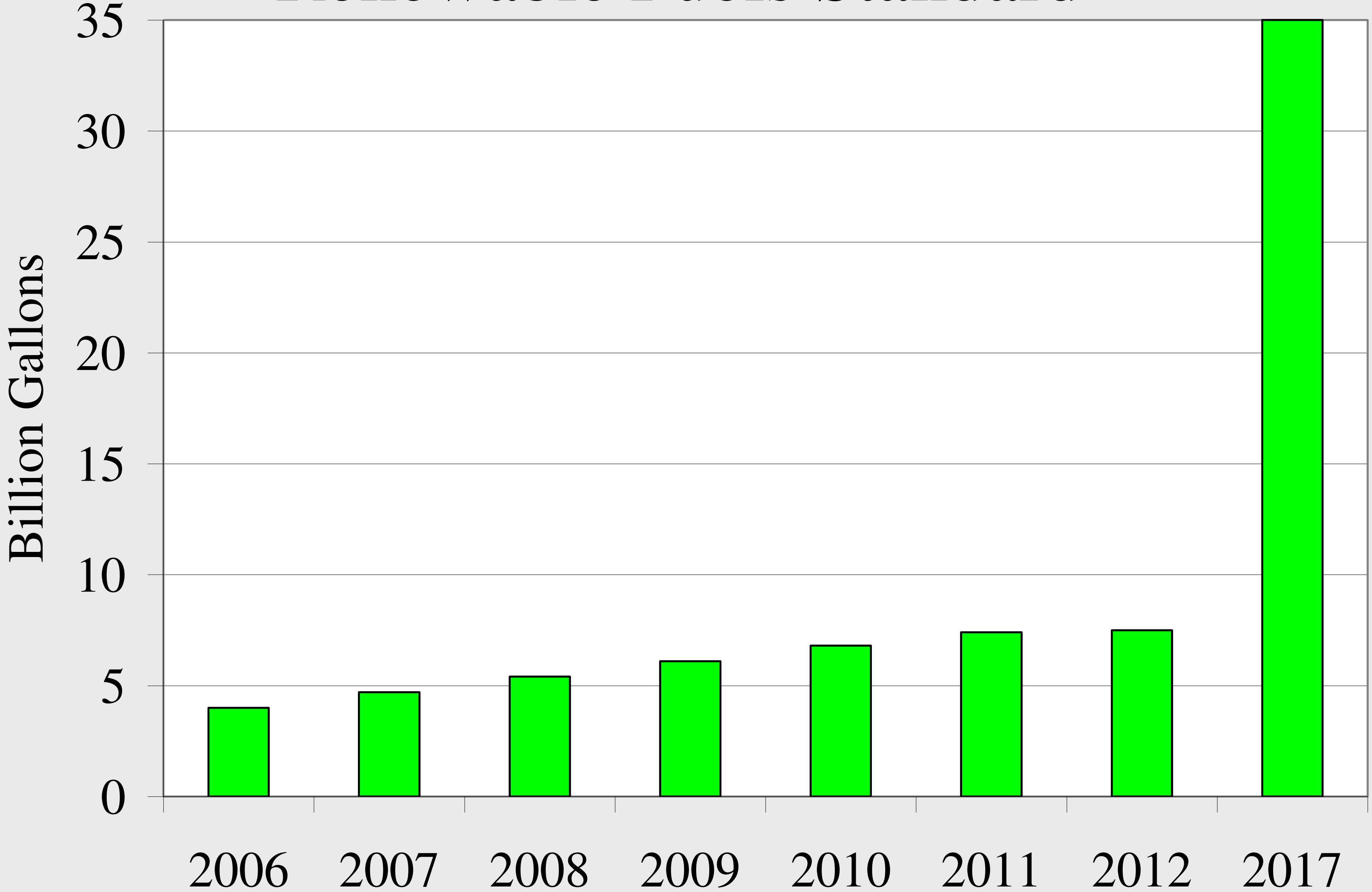
Biodiesel Growth



Source: National Biodiesel Board

Renewable Fuels Standard



Source: Renewable Fuels Association

Ethanol Industry Snapshots

	Ethanol Plants	Capacity (mgy)
Jan. 2000	54	1,749
Jan. 2001	56	1,921
Jan. 2002	61	2,347
Jan. 2003	68	2,707
Jan. 2004	72	3,101
Jan. 2005	81	3,644
Jan. 2006	95	4,336
Jan. 2007	110	5,493

Source: Renewable Fuels Association

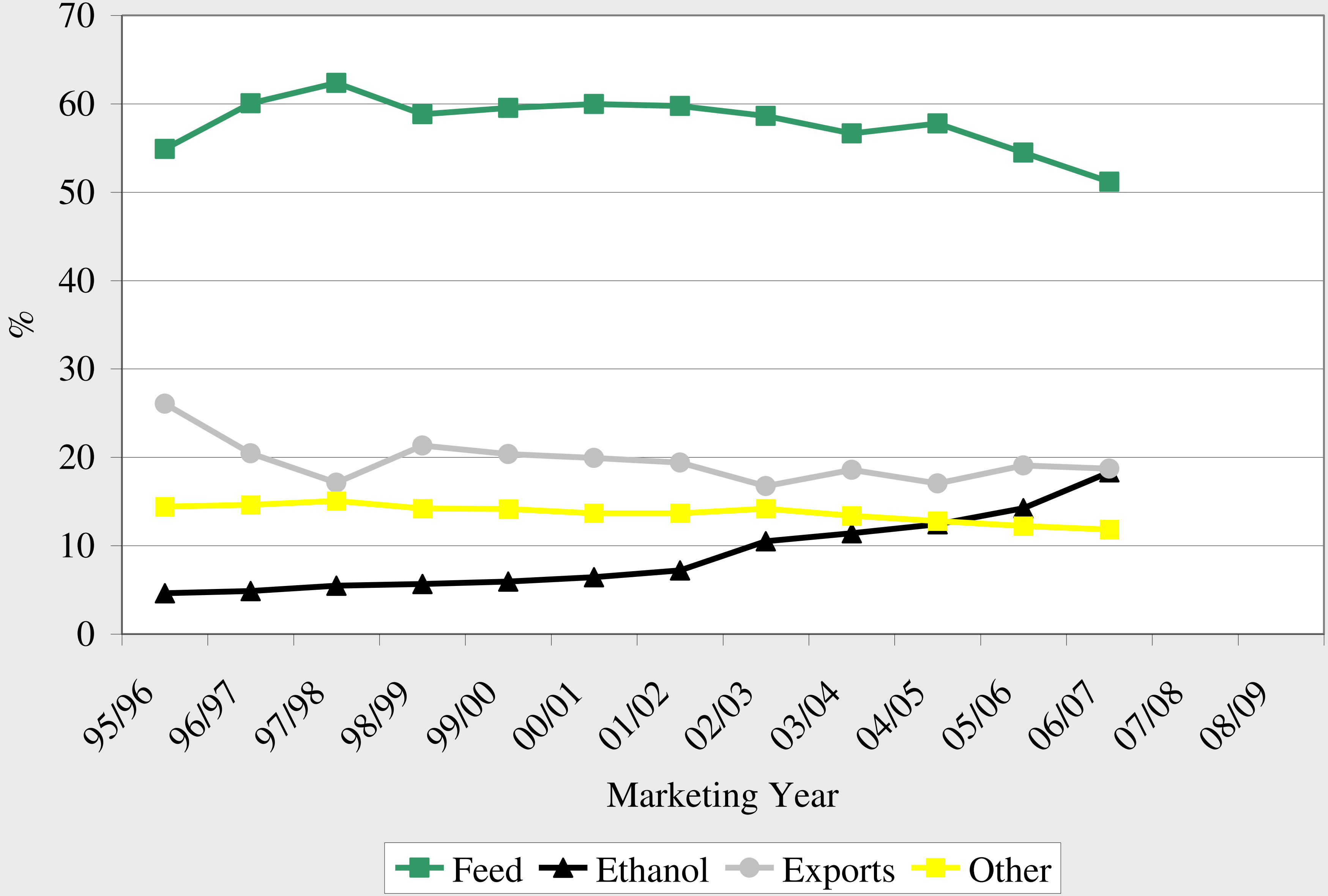
Ethanol – State by State

State	Current Capacity (million gallons)	State	Current Capacity (million gallons)
IA	1,924	MO	157
IL	896	ND	134
NE	875	CO	85
MN	617	CA	68
SD	615	TN	67
IN	292	AZ	55
WI	278	KY	35
MI	214	OR	35
KS	207	NM	30

Biodiesel – State by State

State	Current Capacity (million gallons)	State	Current Capacity (million gallons)
IA	257	CA	50
TX	150	MO	46
FL	139	OH	38
WA	116	MI	35
AL	95	CO	29
IL	94	MS	28
NJ	74	AR	27
MN	63	WI	25
TN	59	GA	23

Historical Corn Utilization



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Where Are We Headed?

- Based on construction announcements for ethanol plants, by the end of 2009, ethanol production capacity could exceed 13.5 billion gallons

- Announced biodiesel capacity exceeds 2.5 billion gallons

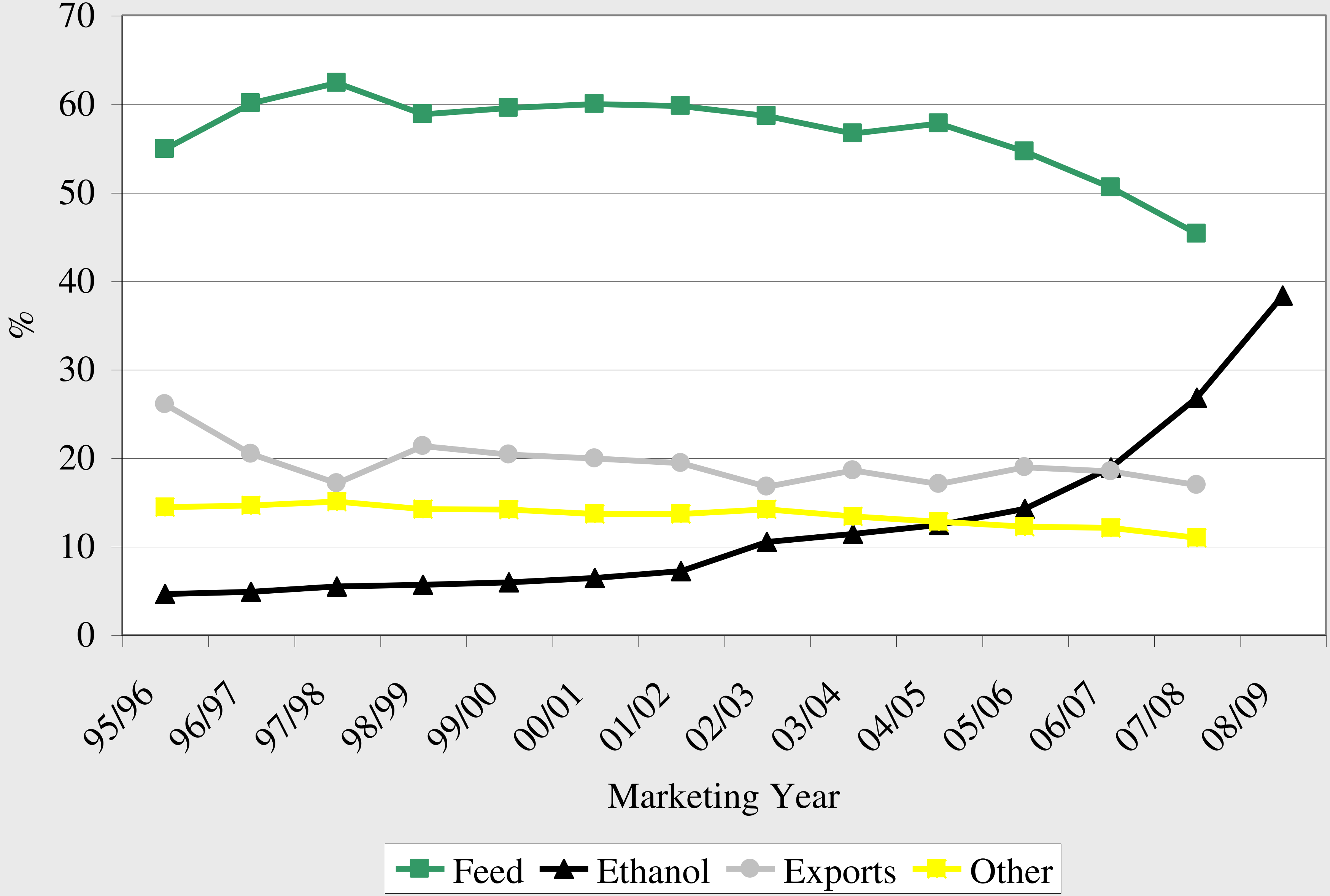
Ethanol – State by State

State	Current Capacity (million gallons)	Being Built	Total
IA	1,924	1,745	3,669
NE	875	878	1,753
IL	896	291	1,187
MN	617	513	1,130
SD	615	378	993
IN	292	616	908
OH	4	529	533
KS	207	295	502
WI	278	220	498
TX	0	385	385

Biodiesel – State by State

State	Current Capacity (million gallons)	Being Built	Total
IA	257	95	352
TX	150	113	263
IL	94	105	199
AL	95	60	155
FL	139	13	152
NJ	74	60	134
IN	11	120	131
ND		123	123
WA	116		116
NV	4	105	109

Projected Corn Utilization



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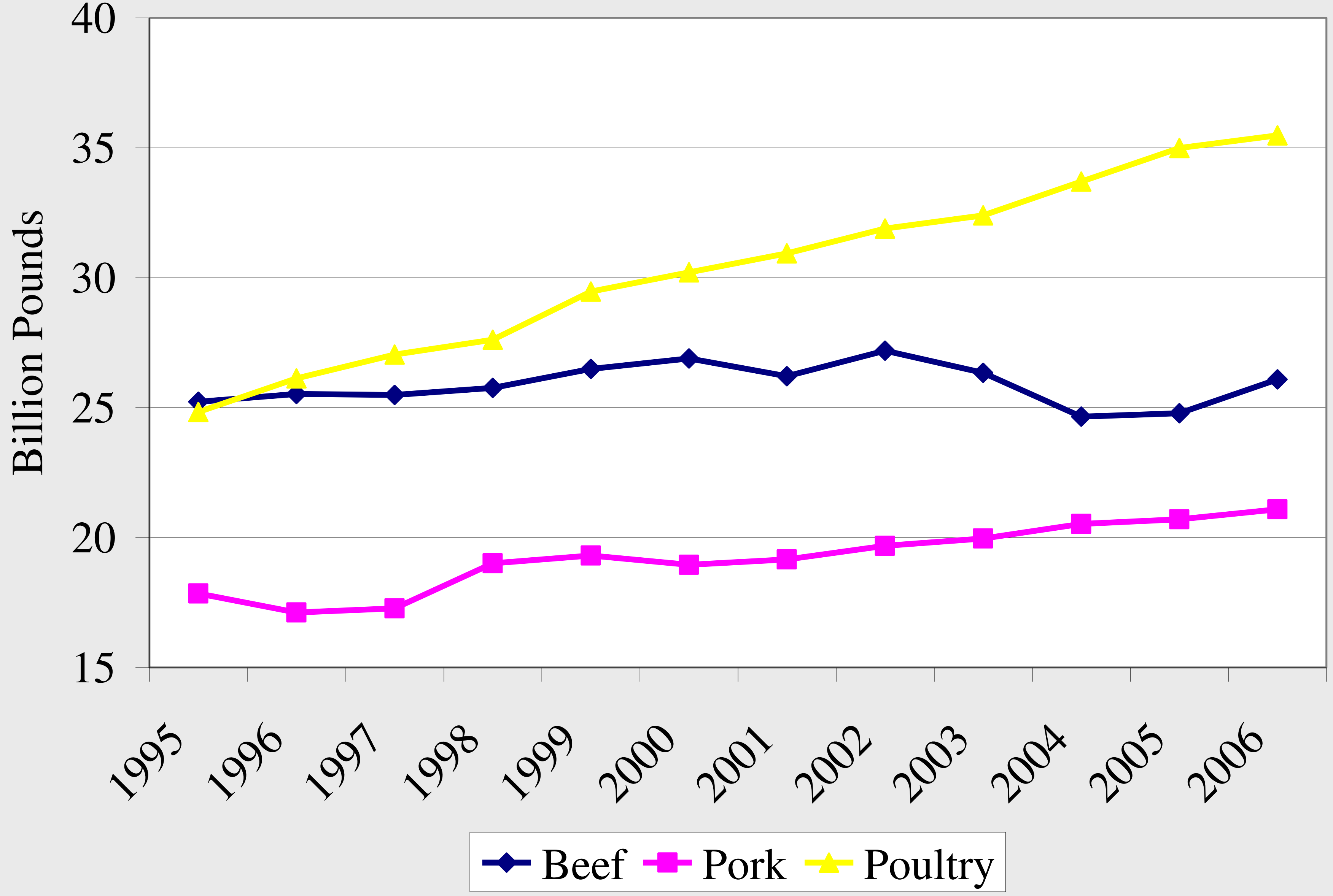
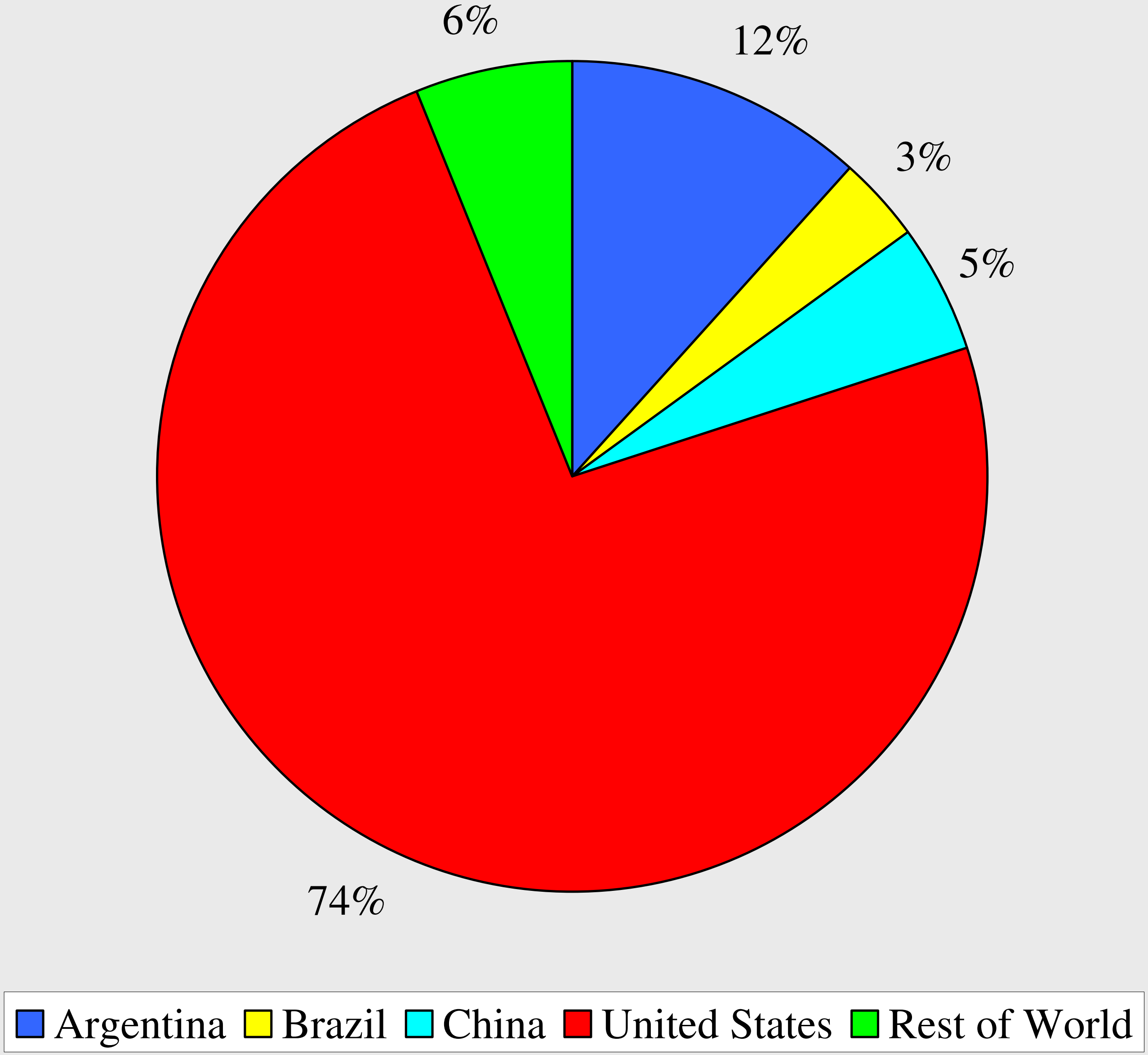
That's A Lot of Corn

- 13.5 billion gallons of ethanol translates into 4.9 billion bushels of corn
  - That's more than the combined corn output of Iowa, Illinois, and Wisconsin in 2006.
- Ethanol demand for corn has put tremendous pressure on the corn market
- It will likely take both supply and demand shifts to balance out the corn market.

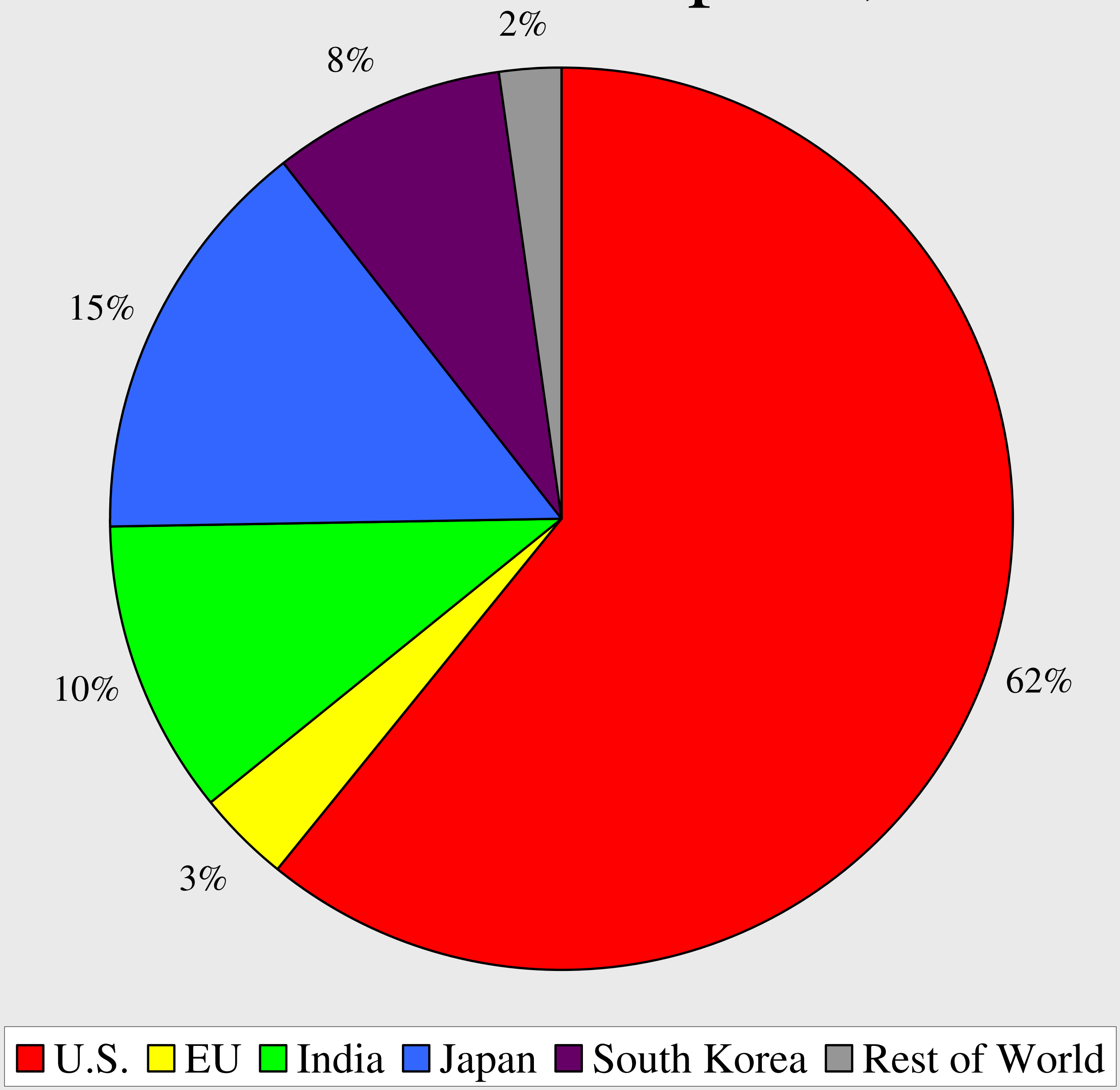
U.S. Livestock Production



World Corn Exports in 2005/2006



World Ethanol Imports, 2006



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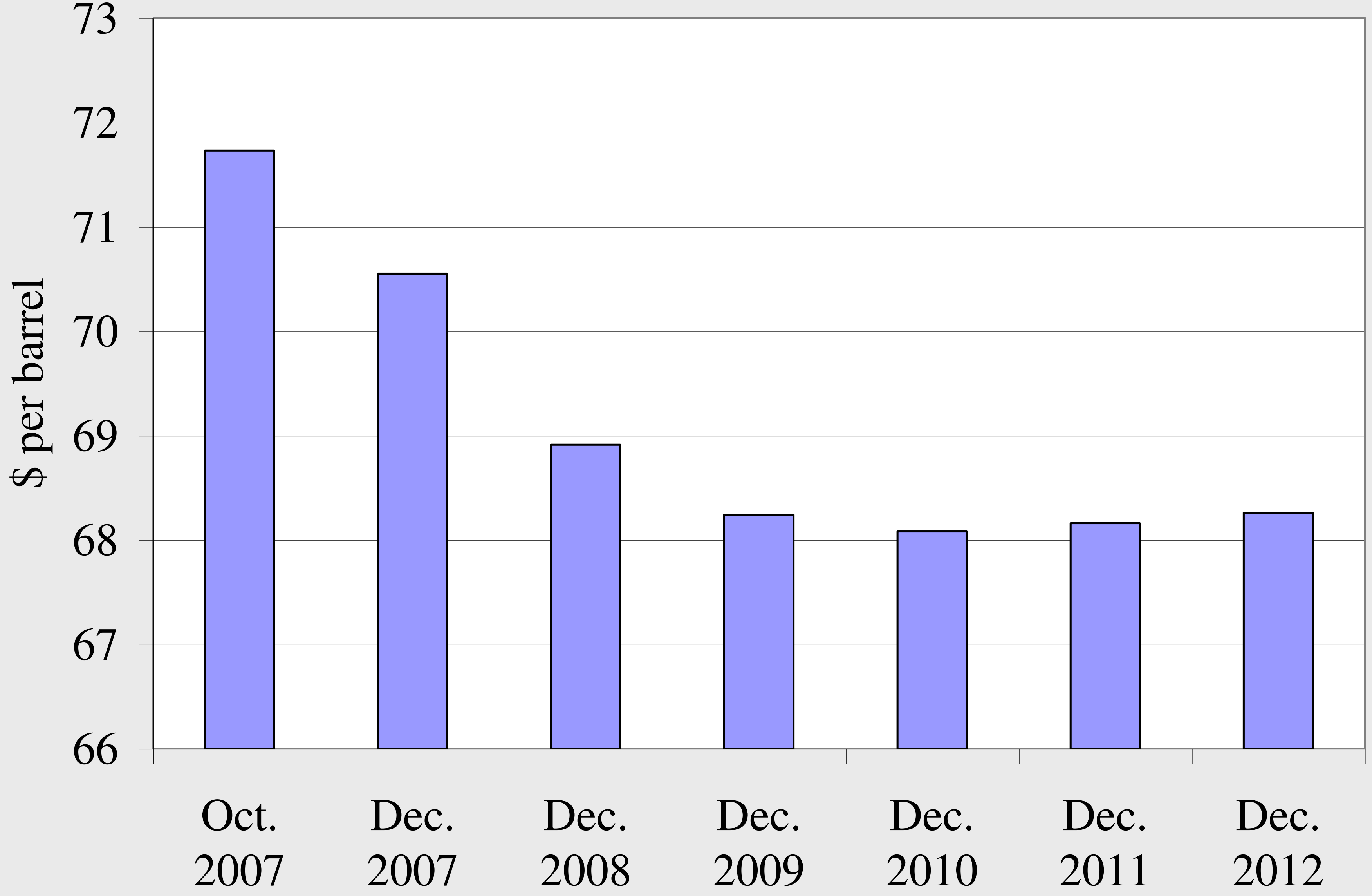
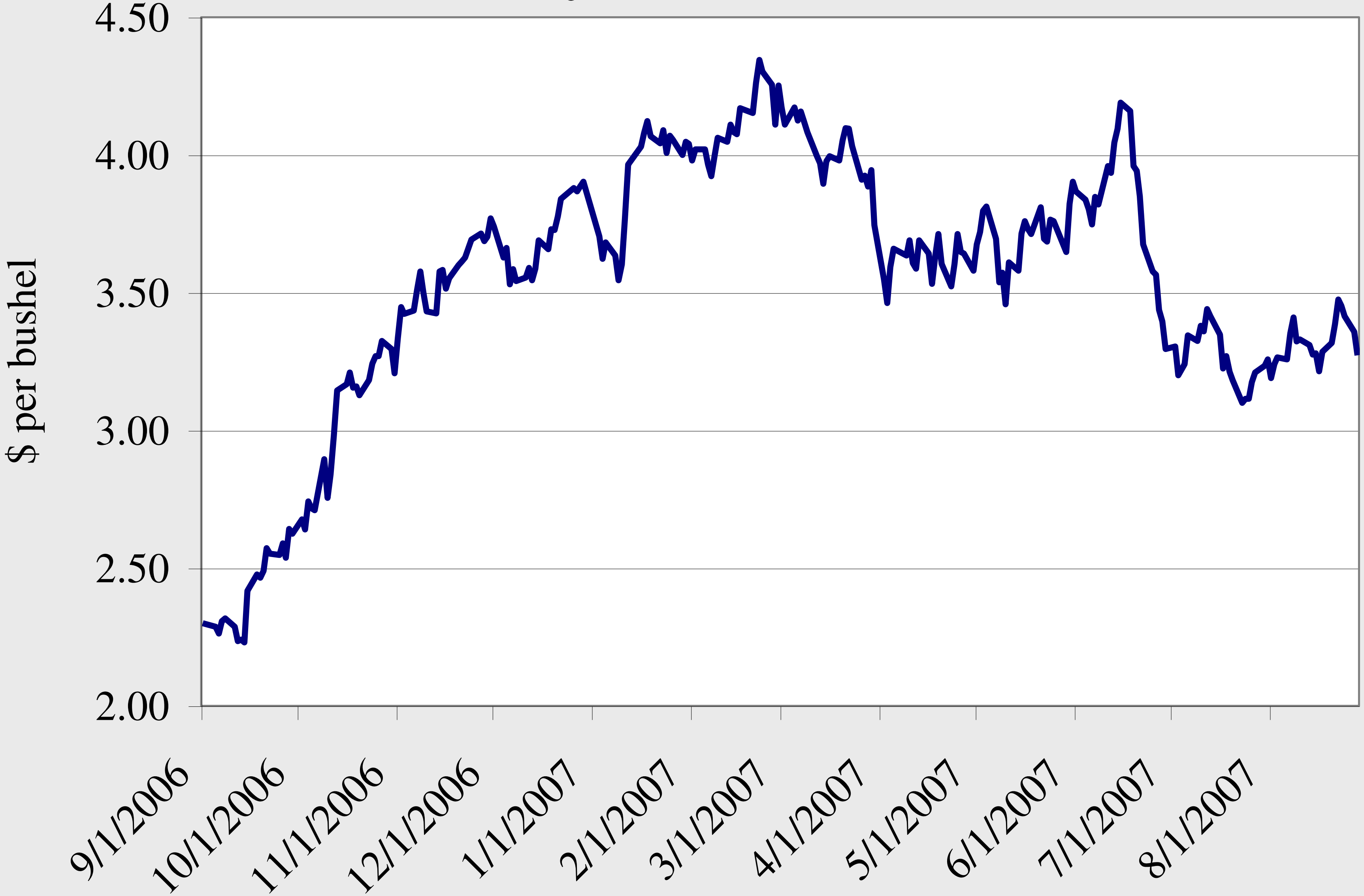
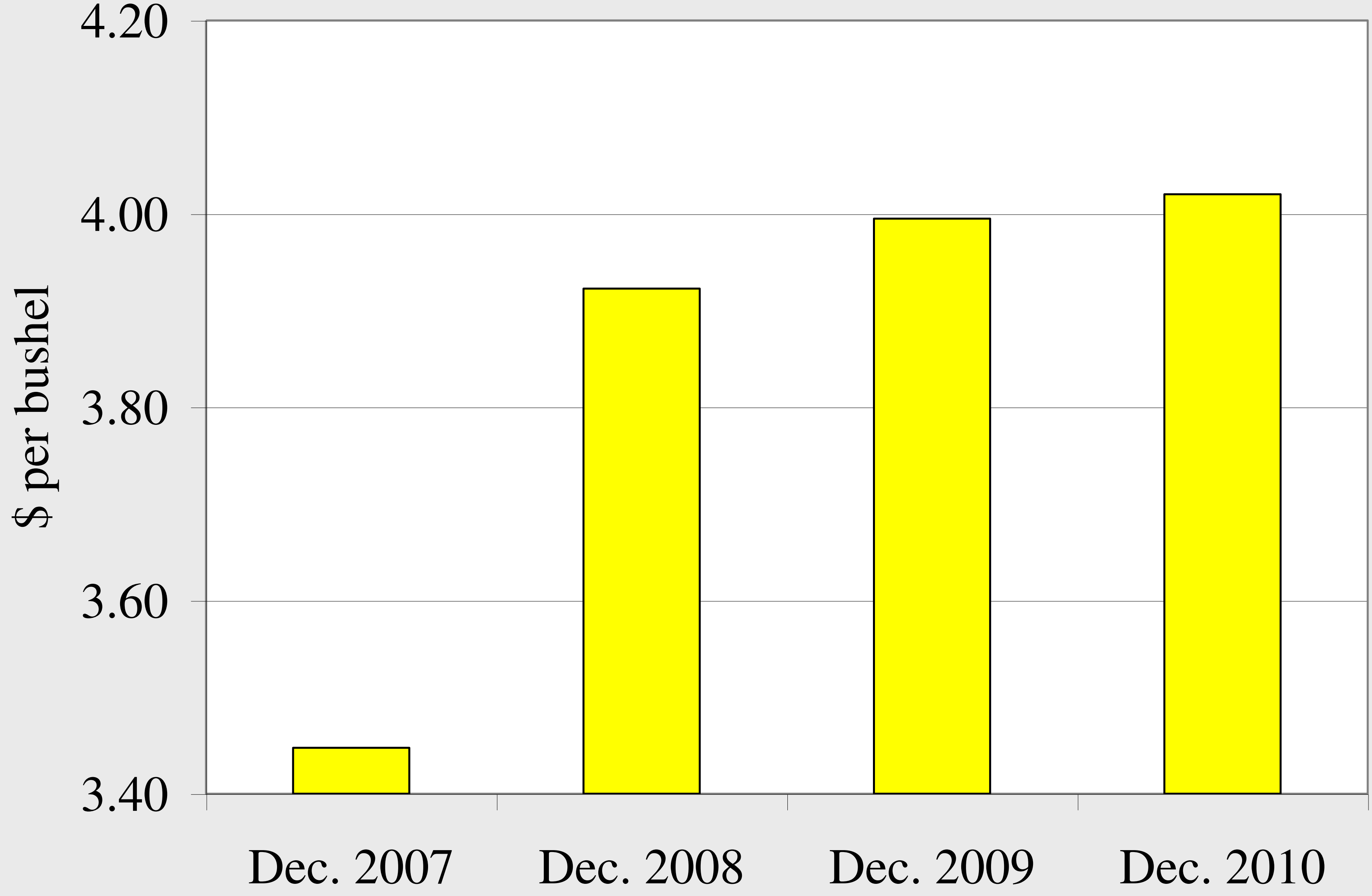
Oil Futures As Of 8/28/2007



Nearby Corn Futures



Corn Futures As Of 8/28/2007



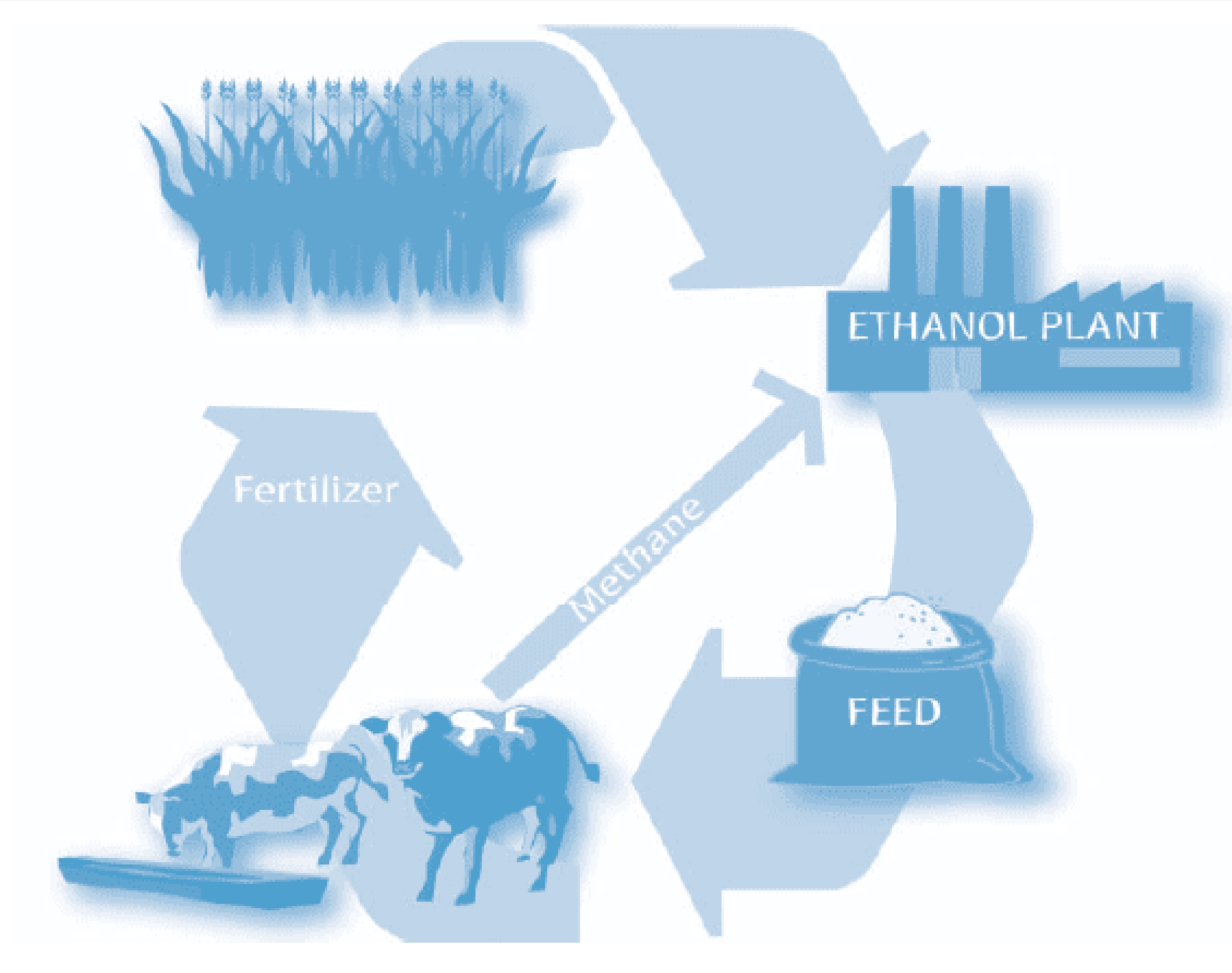
Support for More Corn Acres

- Futures prices are providing a definite signal for more corn acres
- Ethanol's demand for corn continues to increase
- This is despite the 15% jump in corn acreage in 2007

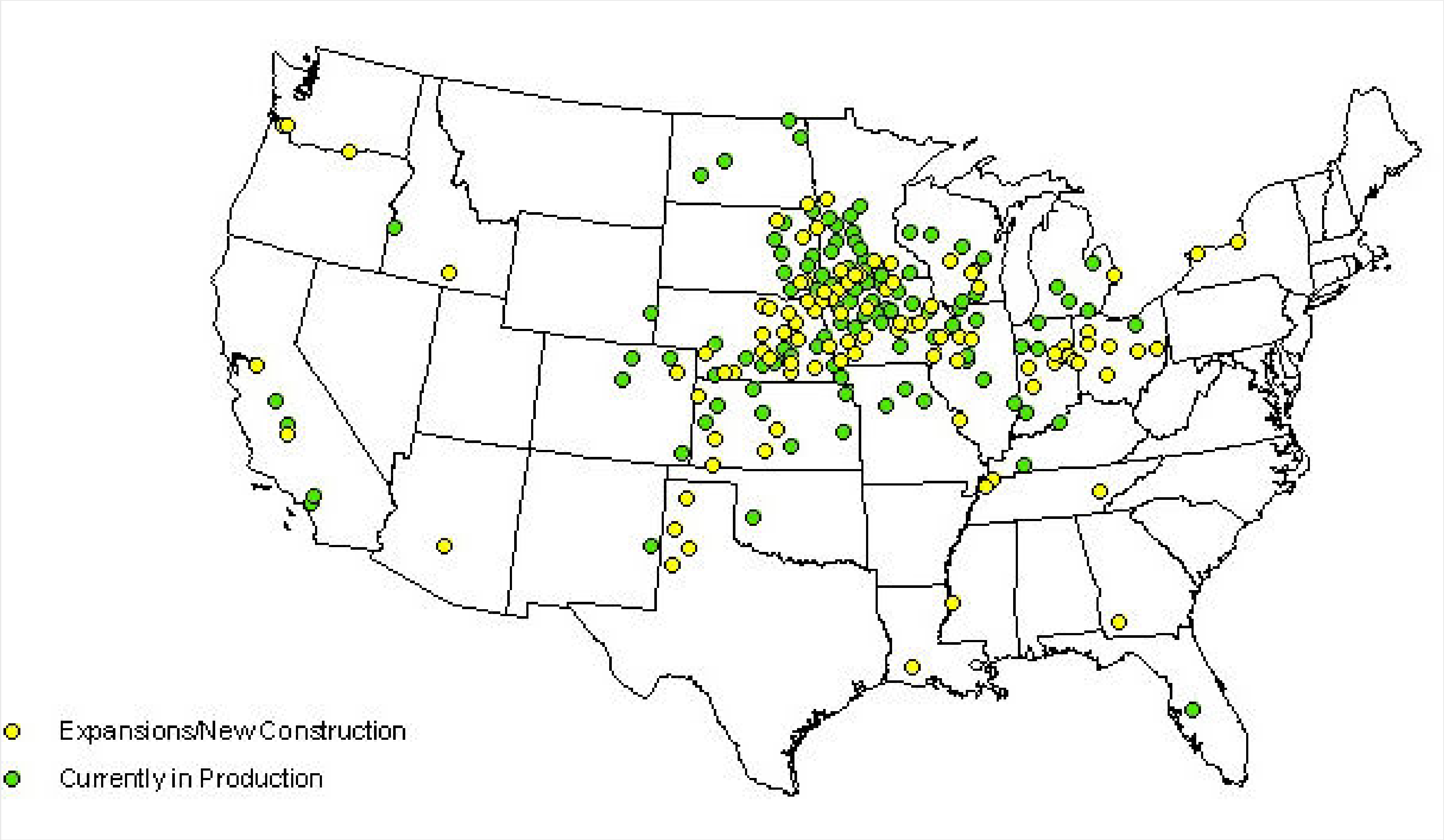
Where Will the Acreage Come From?

State	2000-2006 Average Corn	2000-2006 Average Soybeans	Percentage of Acreage in Corn	If the States Followed a 2/1 Rotation Corn	If the States Followed a 2/1 Rotation Soybeans
	(acres)			(acres)	
Illinois	11,421	10,236	53%	14,438	7,219
Indiana	5,657	5,571	50%	7,486	3,743
Iowa	12,386	10,450	54%	15,224	7,612
Kansas	3,314	2,850	54%	4,110	2,055
Kentucky	1,217	1,279	49%	1,664	832
Michigan	2,221	2,036	52%	2,838	1,419
Minnesota	7,214	7,257	50%	9,648	4,824
Missouri	2,864	5,050	36%	5,276	2,638
Nebraska	8,307	4,743	64%	8,700	4,350
Ohio	3,371	4,493	43%	5,243	2,621
South Dakota	4,350	4,179	51%	5,686	2,843
Wisconsin	3,636	1,610	69%	3,497	1,749

Ethanol-Livestock Synergies



Plant Location



A 50-Million Gallon Ethanol Plant …

- Uses roughly 18.5 million bushels of corn
  - In Iowa, corn from 116,000 acres
- Produces 315 million pounds of distillers grains
  - This could feed approx. 60,000 dairy cattle or 17.26 million layers
- Utilizes natural gas/coal in plant operations
  - Manure from 60,000 dairy cattle could produce methane to meet part of the ethanol plant’s energy needs

10 Observations about Ethanol

1. Ethanol production growth has exceeded expectations
   - Growth has exceeded forecasts and has put the U.S. on pace to far exceed the RFS
   - But the industry is approaching another barrier point (10% of gasoline usage)

2. Gasoline prices are likely to remain high enough to support ethanol

10 Observations about Ethanol

3. Ethanol margins can remain positive over a wide corn price range

4. Corn prices are likely to remain higher than usual

5. Given positive margins, ethanol plants will be competitive for corn at higher prices

10 Observations about Ethanol

6. To maintain all corn usage demands, the U.S. will need to dramatically expand corn acreage

7. Other countries will response to higher corn prices as well

8. With heightened demand and thin stocks, the corn market will be more volatile

10 Observations about Ethanol

9. Cellulosic ethanol has tremendous promise, but it will be several years before cellulosic ethanol truly impacts the energy markets

10. The merging of the energy and agricultural sectors will force substantial changes in both sectors