

Let's Talk About Ethanol

Chad Hart

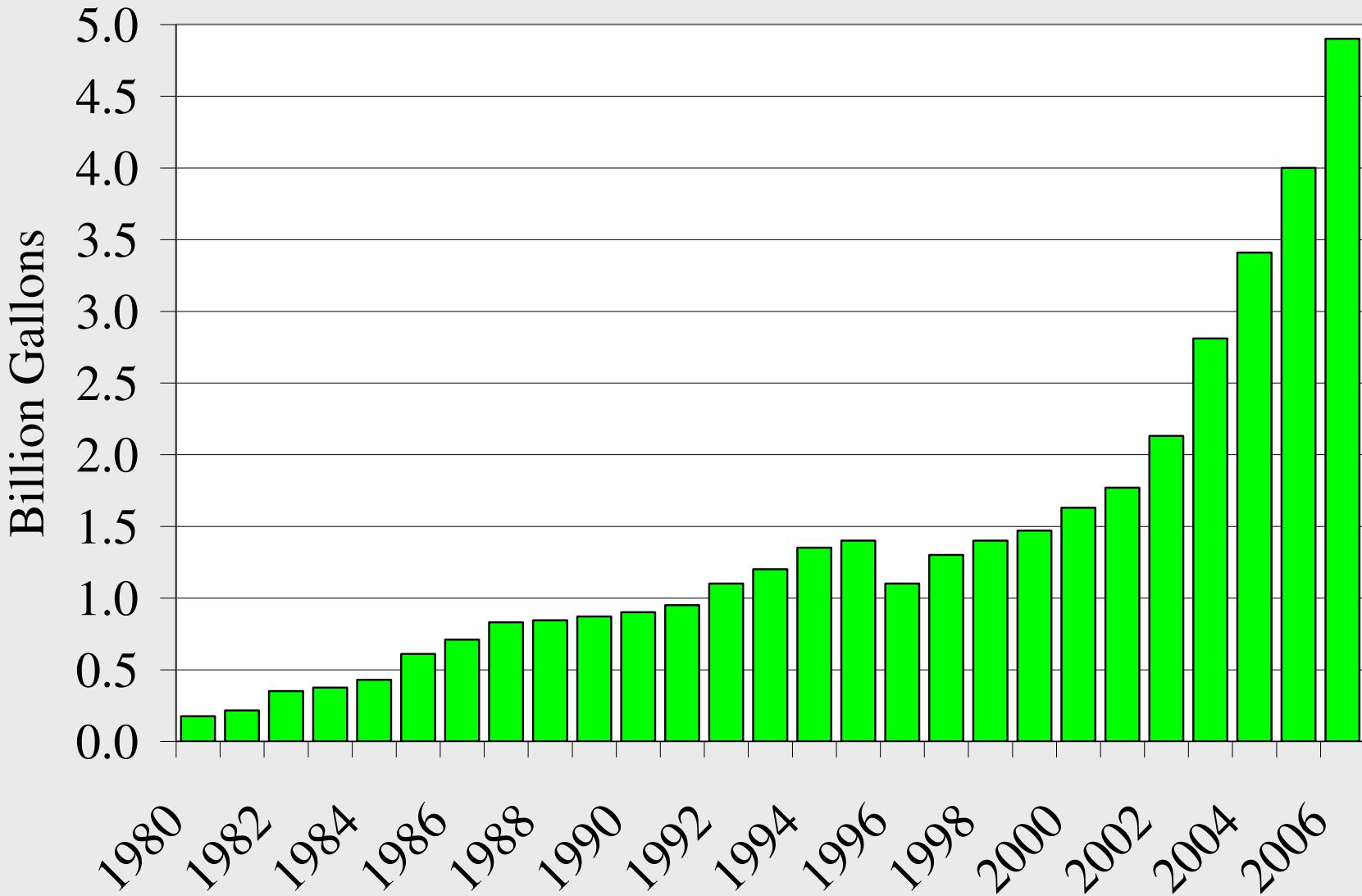
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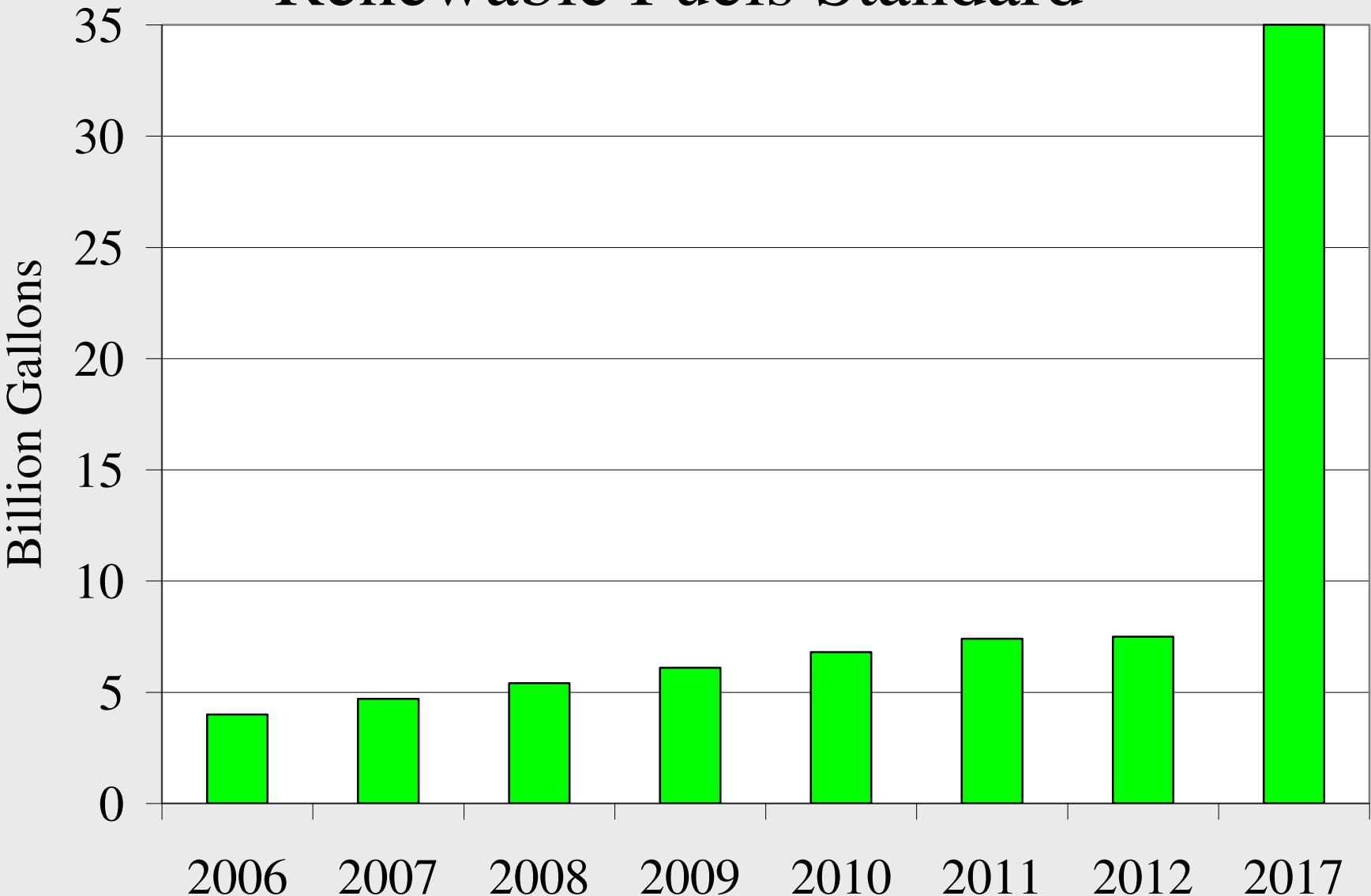
ISU Farm Management Field Specialist
In-Service Program
Ames, Iowa

Ethanol Explosion



Source: Renewable Fuels Association

Renewable Fuels Standard



Source: Renewable Fuels Association

Ethanol Industry Snapshots

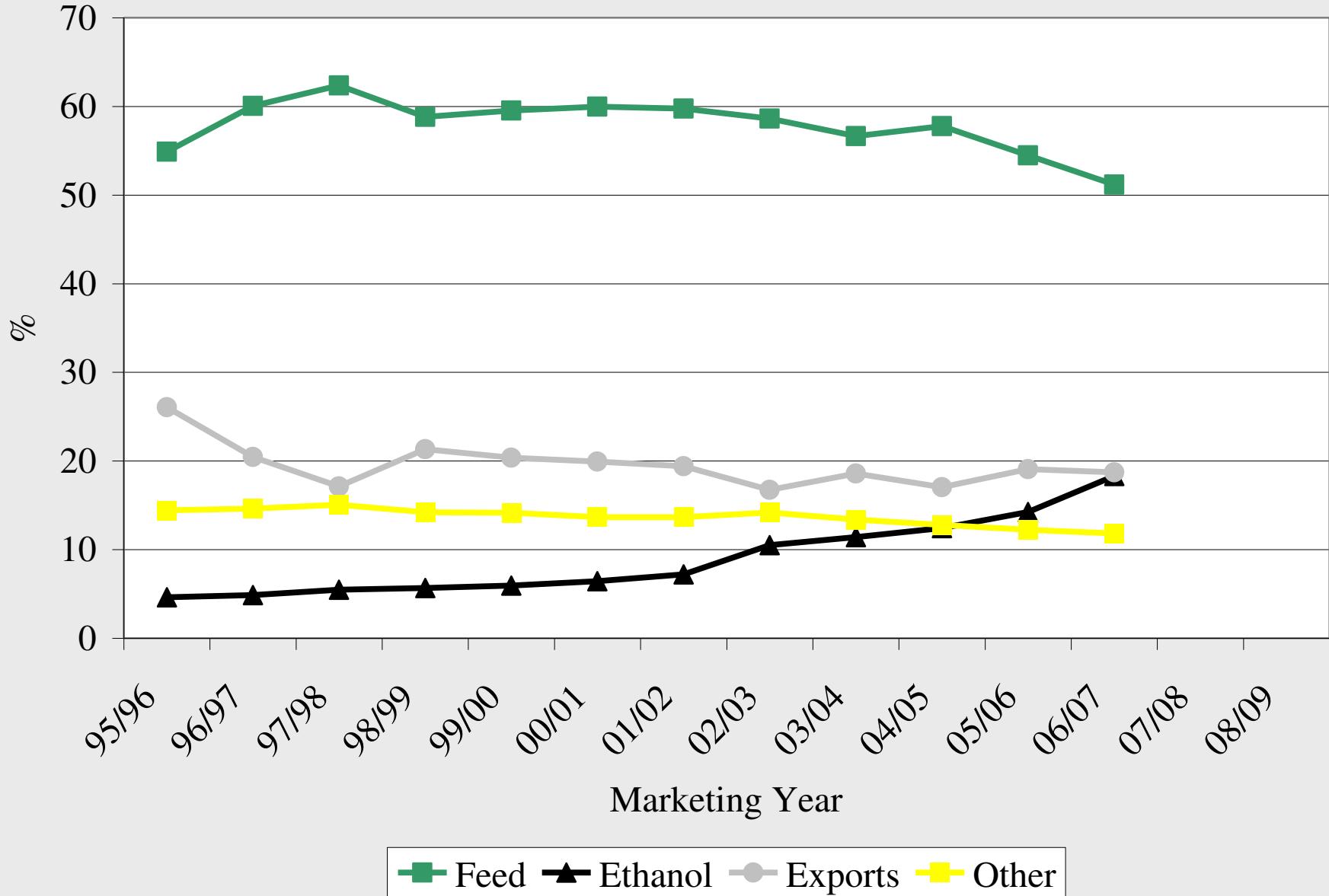
	Ethanol Plants	Capacity (mgy)
Jan. 2000	54	1,749
Jan. 2001	56	1,921
Jan. 2002	61	2,347
Jan. 2003	68	2,707
Jan. 2004	72	3,101
Jan. 2005	81	3,644
Jan. 2006	95	4,336
Jan. 2007	110	5,493

Source: Renewable Fuels Association

Ethanol – State by State

State	Current Capacity (million gallons)	State	Current Capacity (million gallons)
IA	1,977	MO	197
IL	896	ND	134
NE	875	CO	96
MN	617	CA	74
SD	615	TN	67
IN	487	AZ	55
WI	282	OR	40
KS	232	KY	35
MI	214	NM	30

Historical Corn Utilization



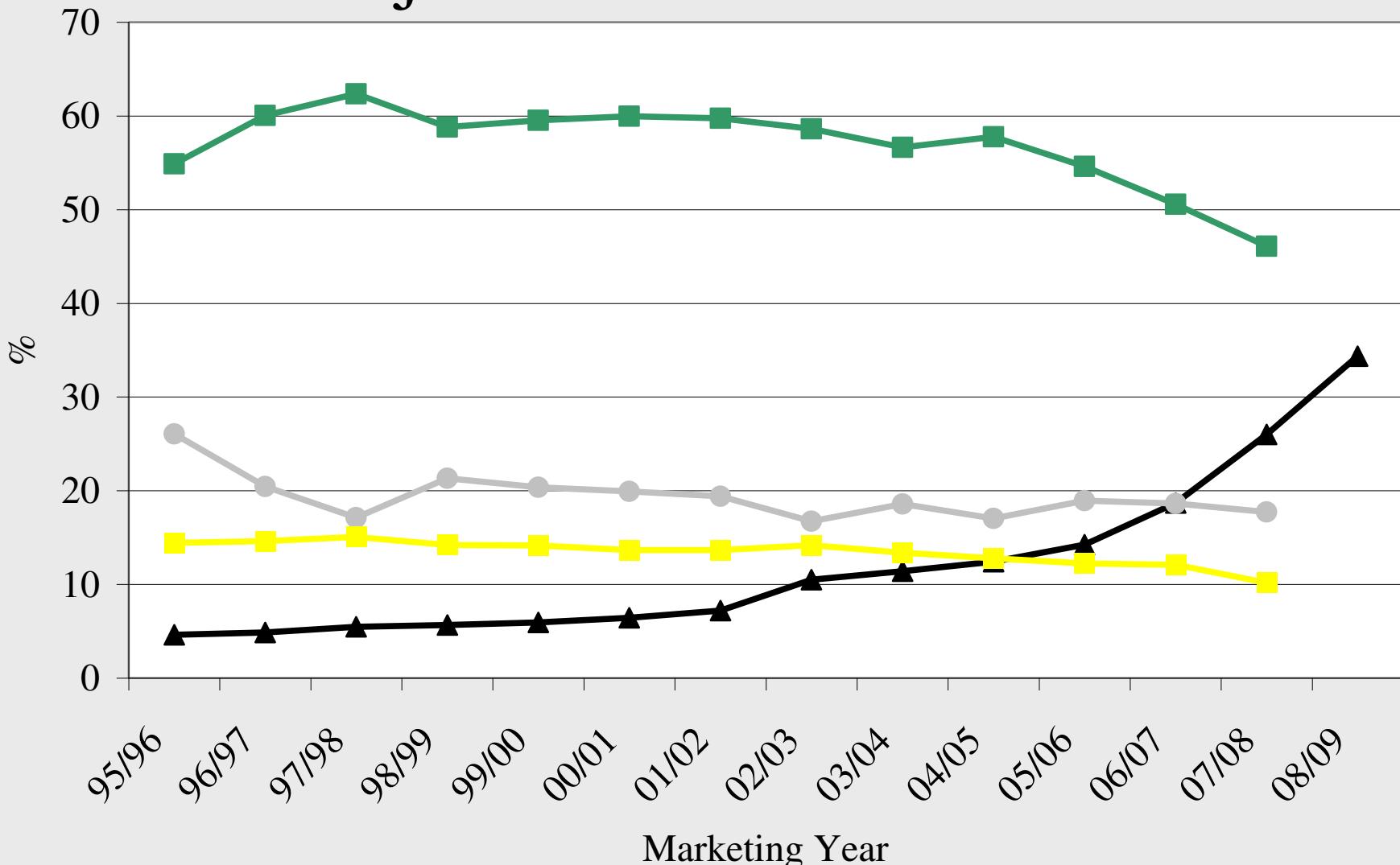
Where Are We Headed?

- Based on construction announcements for ethanol plants, by the end of 2010, ethanol production capacity could exceed 14.5 billion gallons
- Announced biodiesel capacity exceeds 2.5 billion gallons

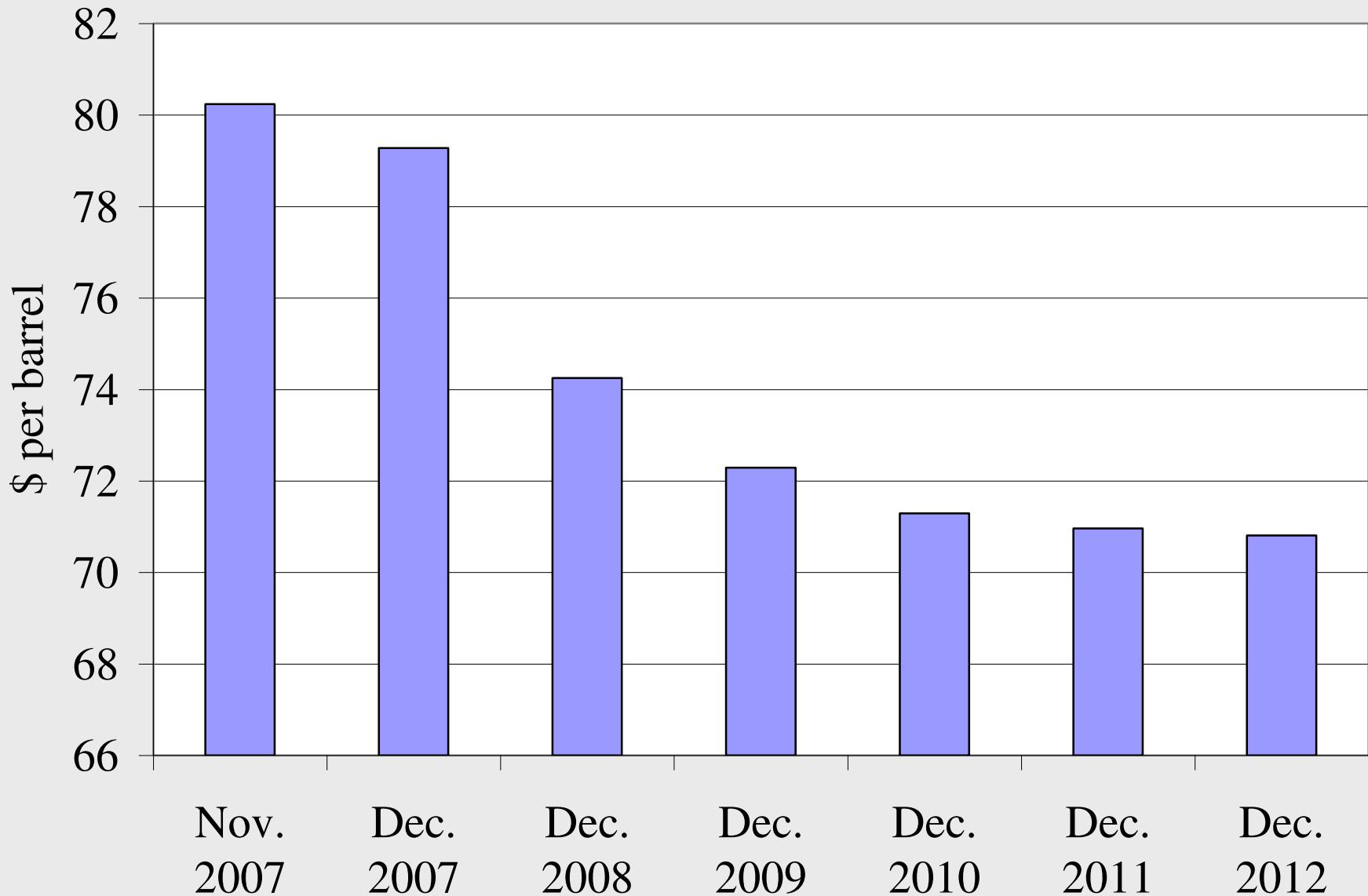
Ethanol – State by State

State	Current Capacity (million gallons)	Being Built	Total
IA	1,977	1,869	3,846
NE	875	1,141	2,016
IL	896	461	1,357
IN	487	730	1,217
MN	617	513	1,130
SD	615	450	1,065
OH	4	544	548
KS	232	295	527
WI	282	230	512
TX	0	385	385

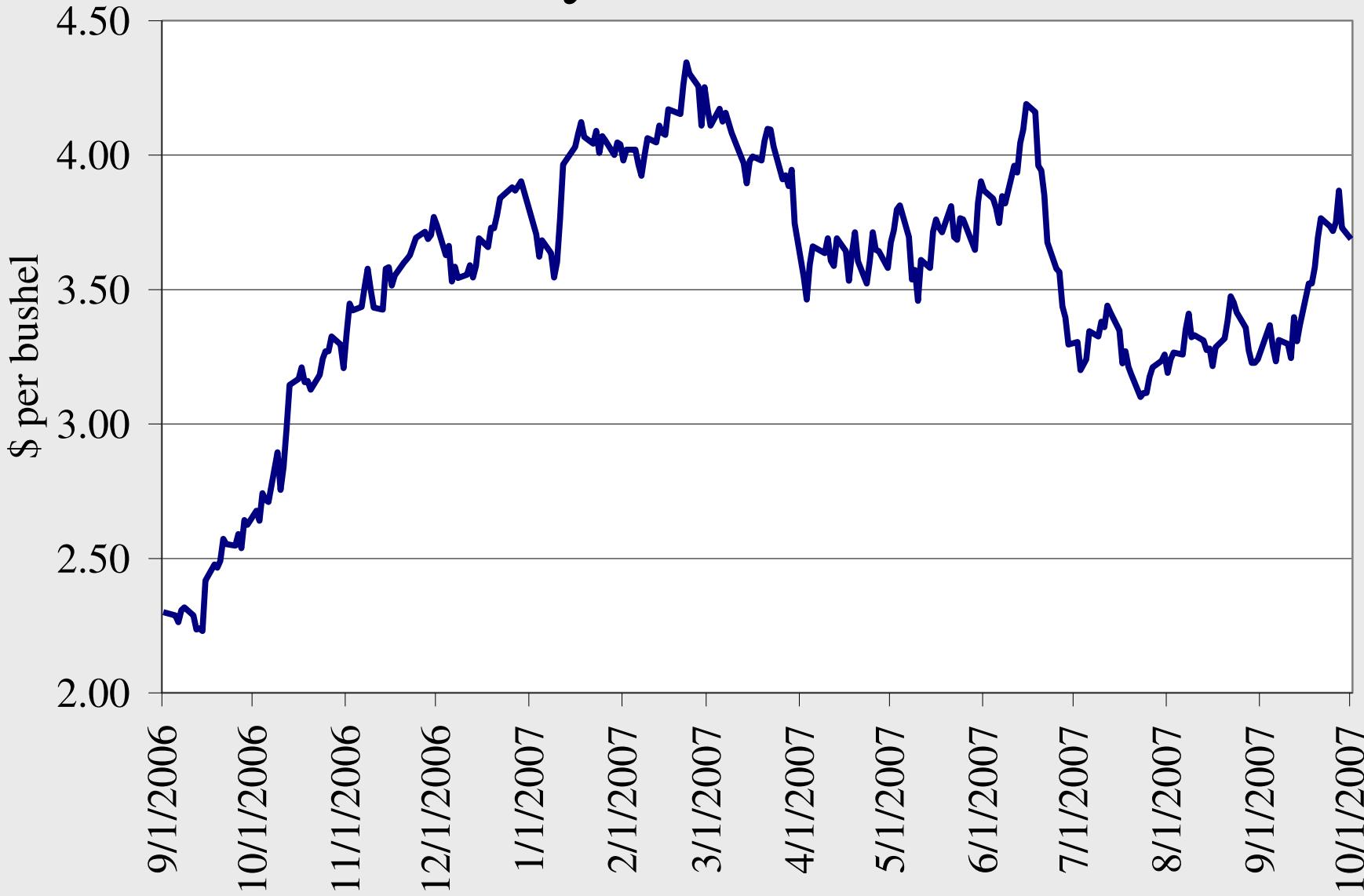
Projected Corn Utilization



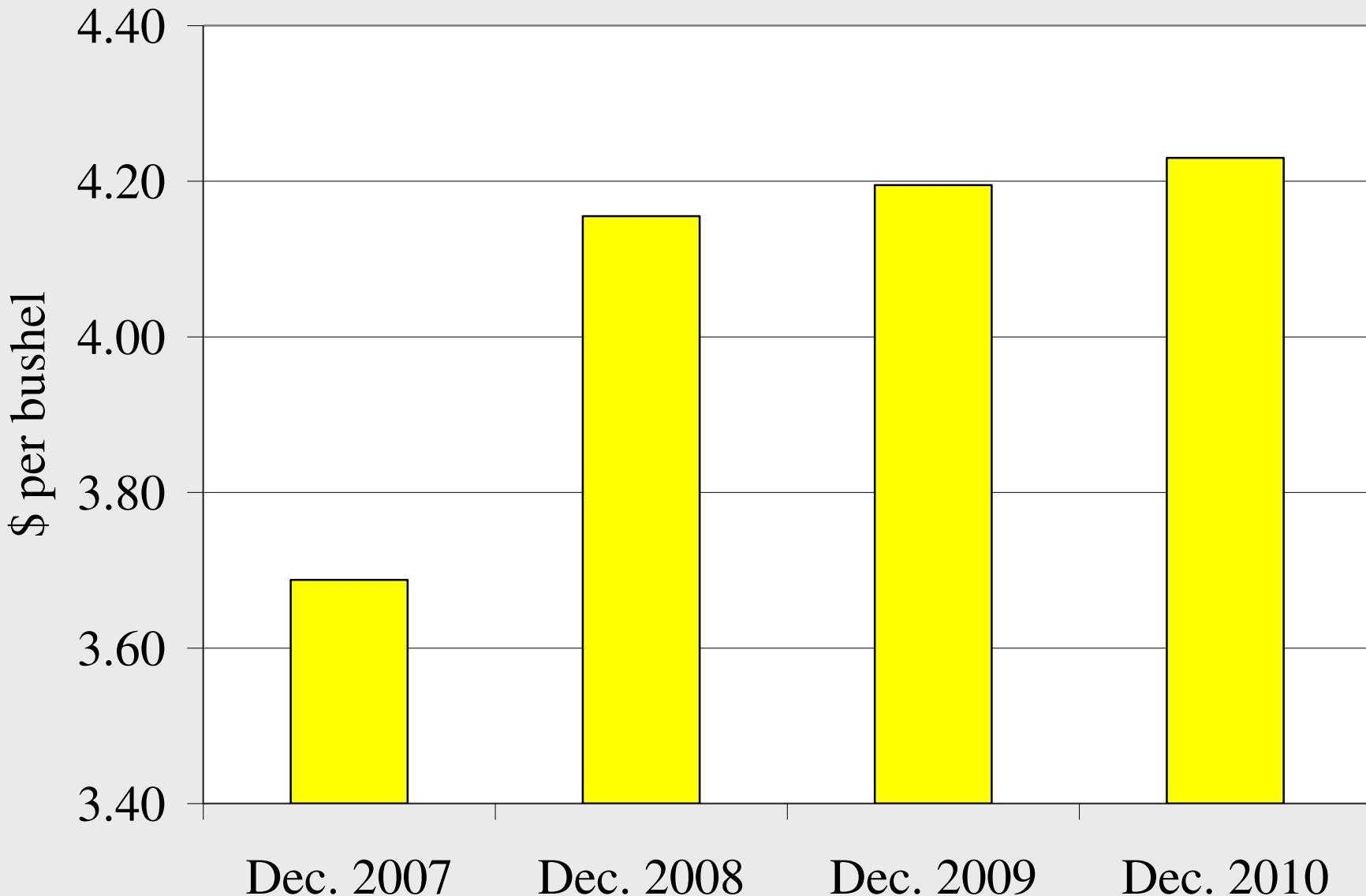
Oil Futures As Of 10/1/2007



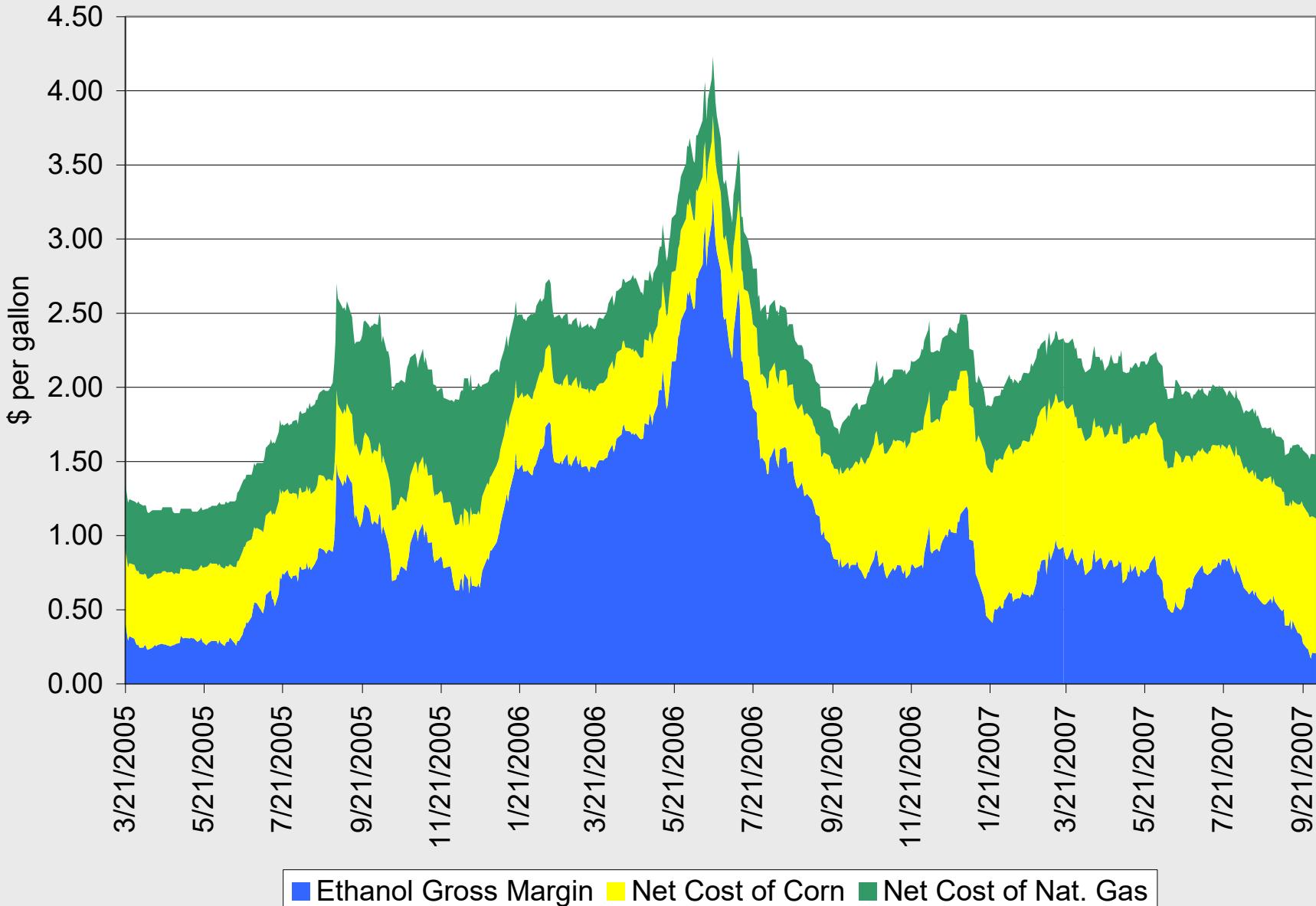
Nearby Corn Futures



Corn Futures As Of 10/1/2007

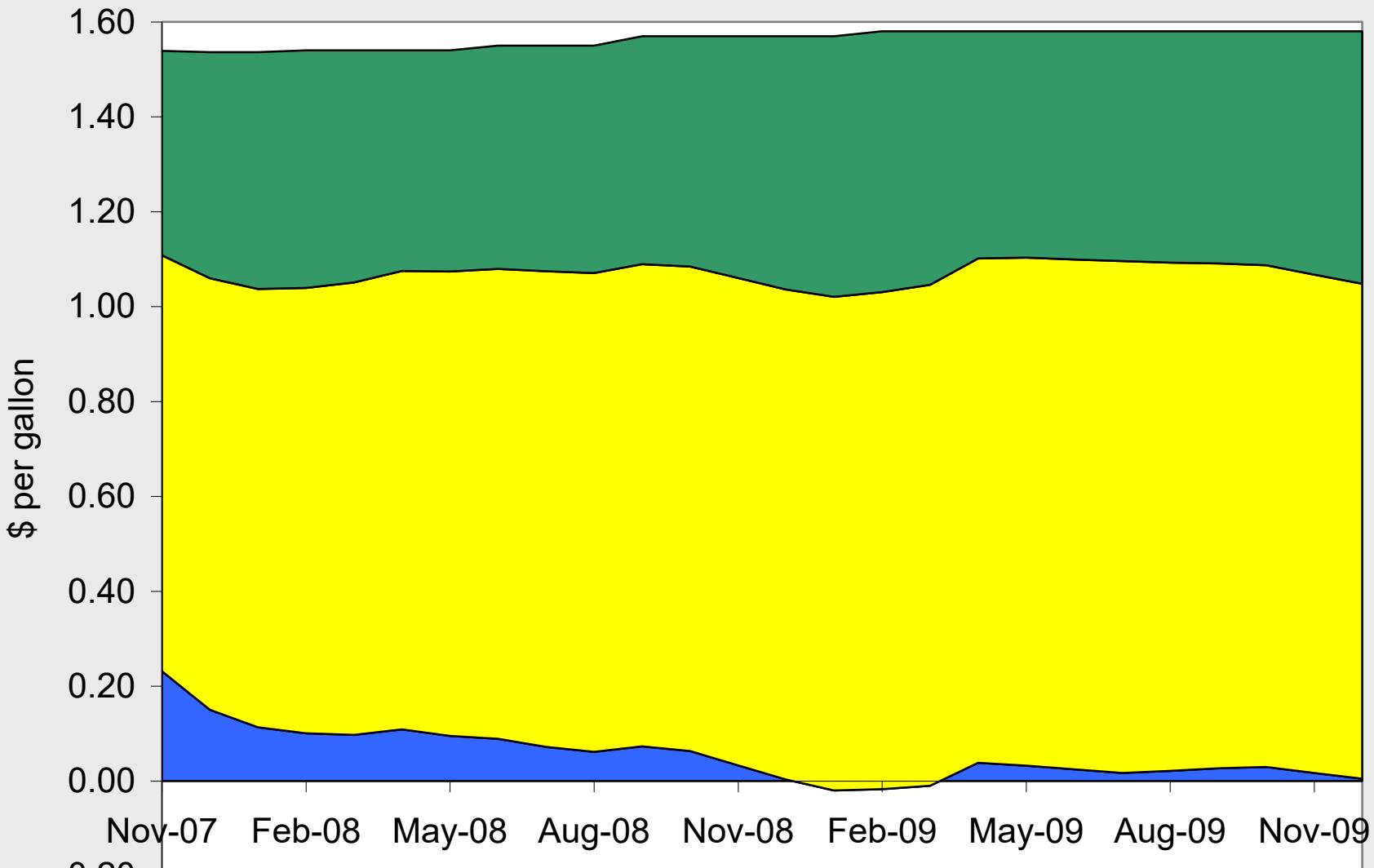


Historical Ethanol Margins



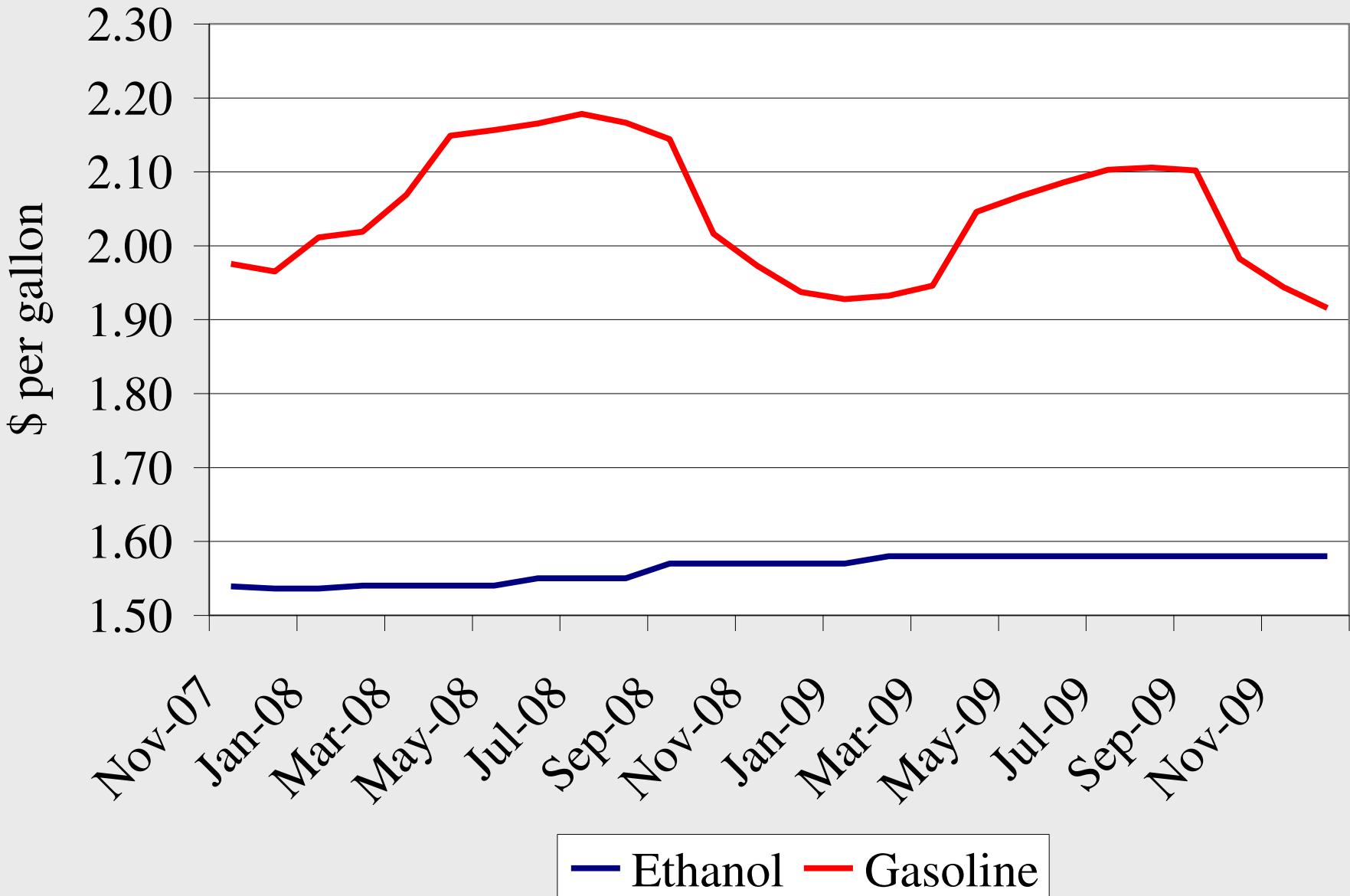
■ Ethanol Gross Margin ■ Net Cost of Corn ■ Net Cost of Nat. Gas

Projected Ethanol Margins



■ Ethanol Gross Margin ■ Net Cost of Corn ■ Net Cost of Nat. Gas

Comparing Futures Prices



— Ethanol — Gasoline

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

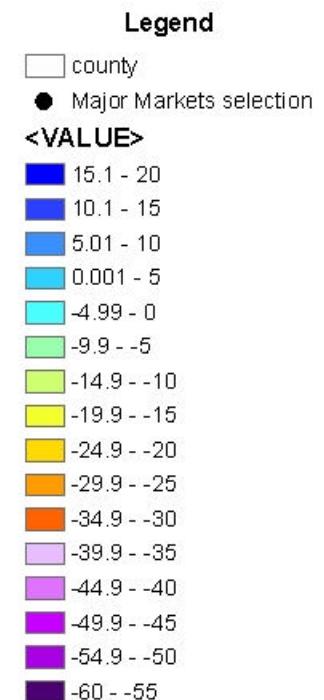
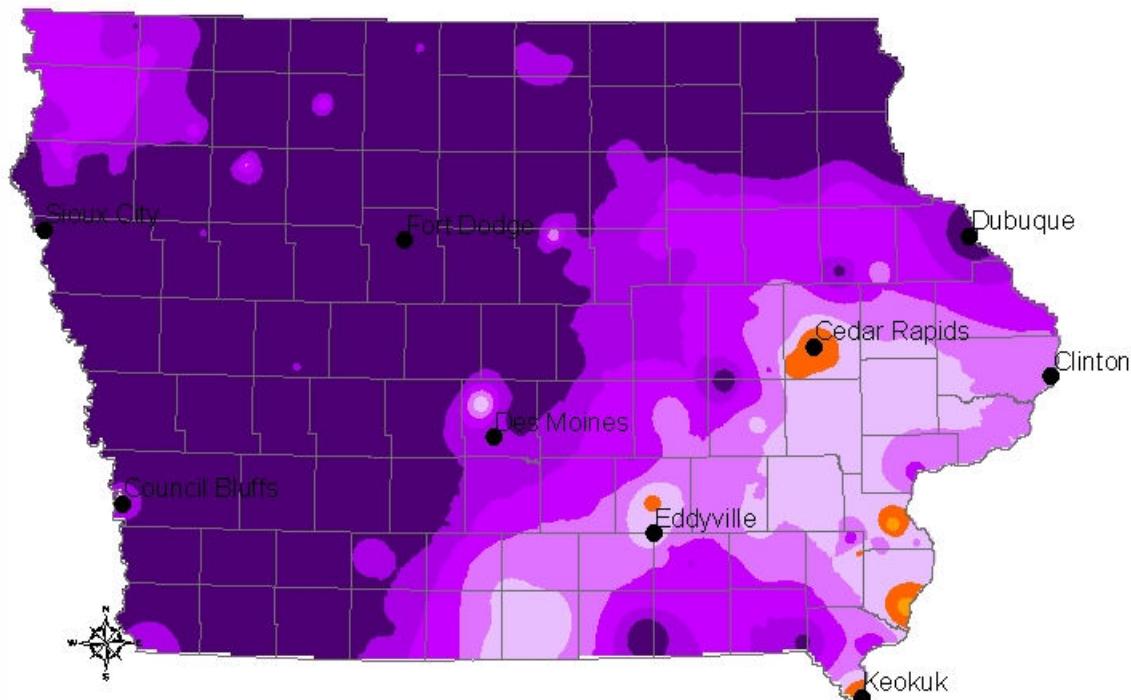
6. To maintain all corn usage demands, the U.S. will need to dramatically expand corn acreage
7. Other countries will response to higher corn prices as well
8. With heightened demand and thin stocks, the corn market will be more volatile

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

Basis in 2005

SEP 28 CORN BASIS



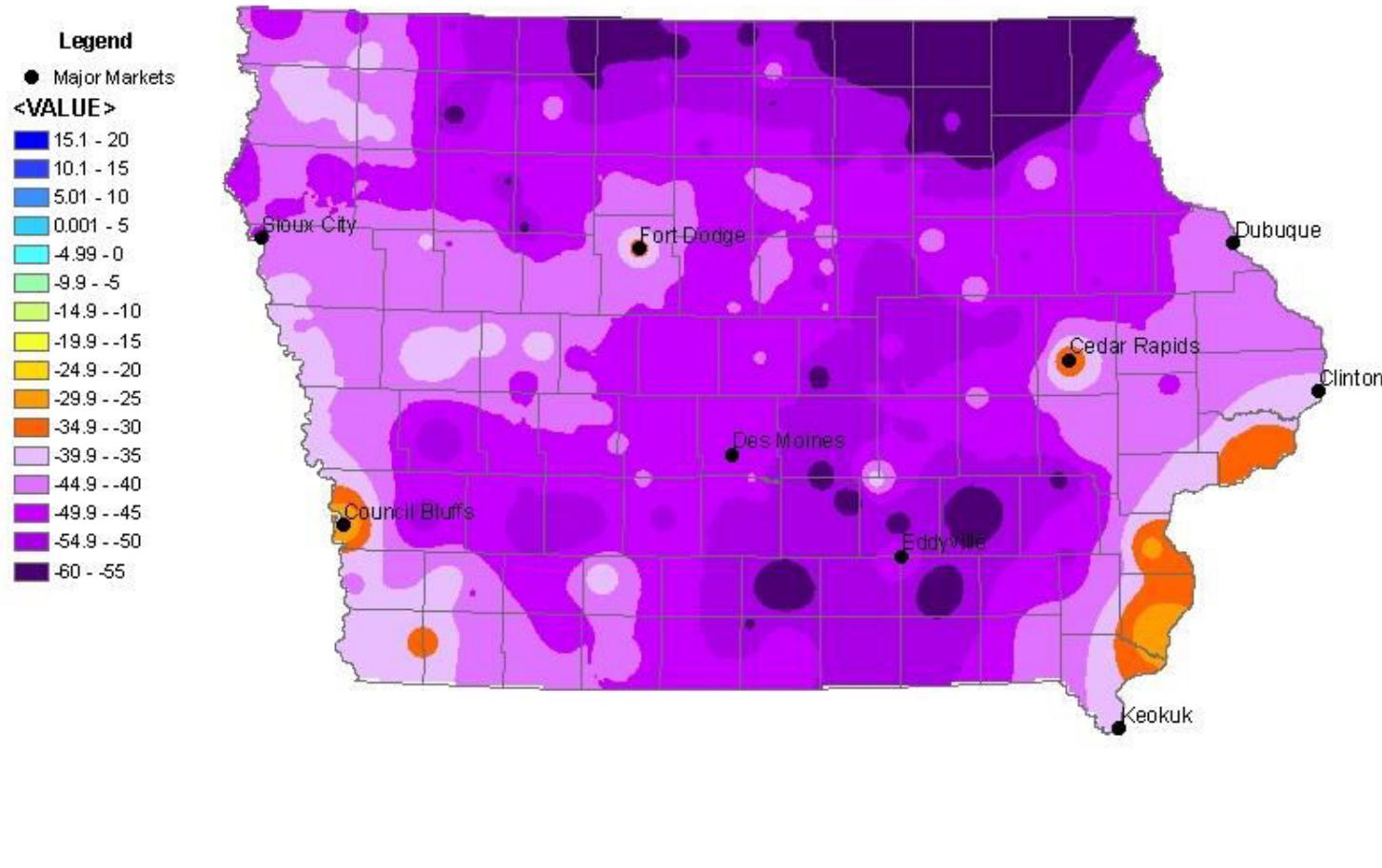
Basis Calculated from CBOT DEC Futures Prices 203 cents per bushels

NOTE: To expand the map to its real size, click the orange color button at the right bottom of the page

Basis in 2006

SEP 28, 2006 CORN BASIS

Basis Calculated from CBOT DEC futures Prices 264.3 cents per bushel



Basis in 2007

SEP 28, 2007 CORN BASIS

Basis Calculated from CBOT DEC futures price 373 cents per bushel

Legend

county

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