

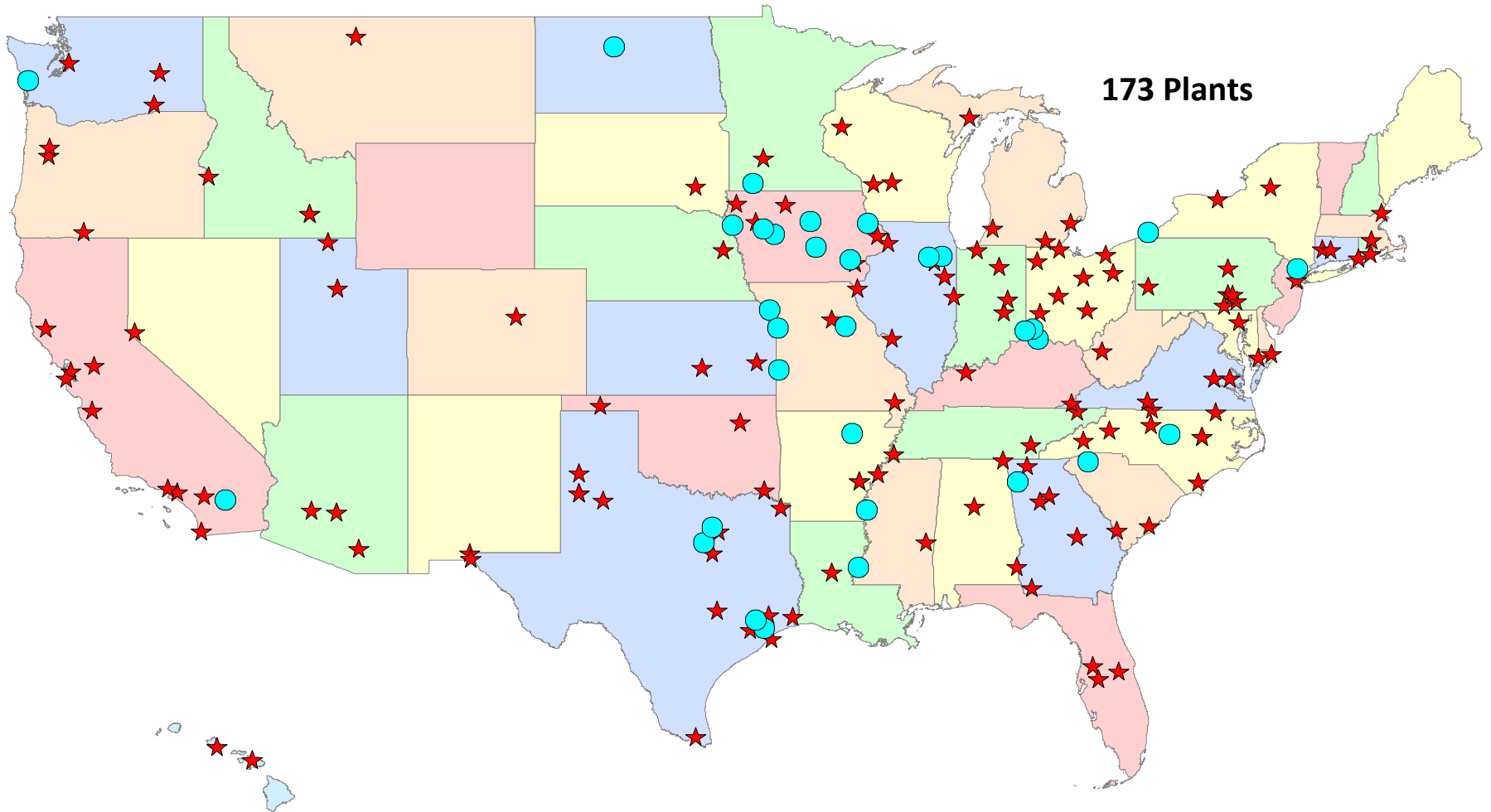


U.S. Biodiesel Industry Outlook

J. Alan Weber
Global Oils & Fats Forum
October 6, 2009
New Orleans, LA

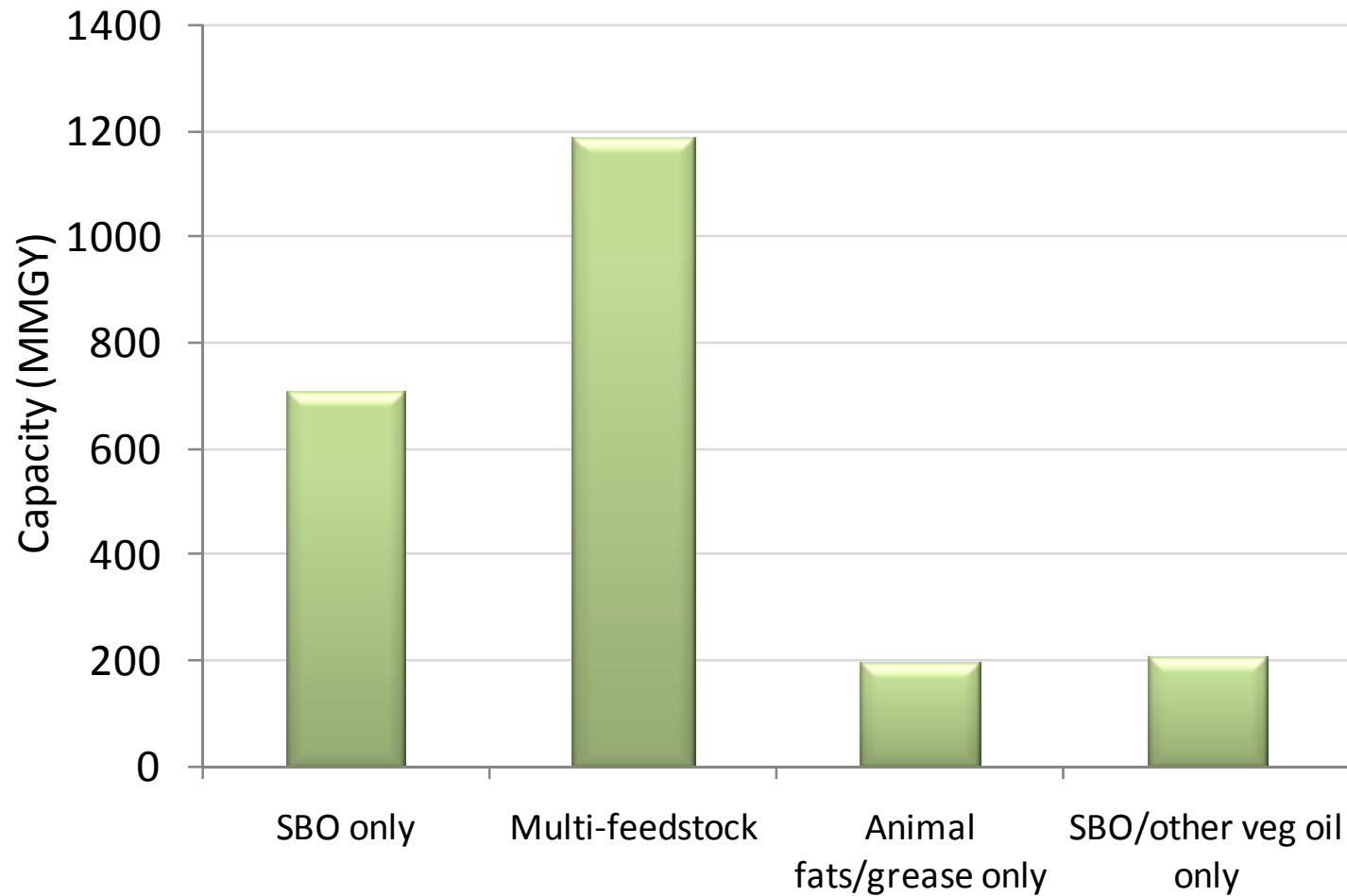
- Represents the biodiesel industry as the coordinating body for research and development in the US.
- Founded in 1992 by soybean commodity groups.
- NBB's membership is comprised of state, national, and international feedstock and feedstock processor organizations, biodiesel suppliers, fuel marketers and distributors, and technology providers.
 - More than 300 members
 - Headquartered in Jefferson City, MO
 - Office also in Washington, DC



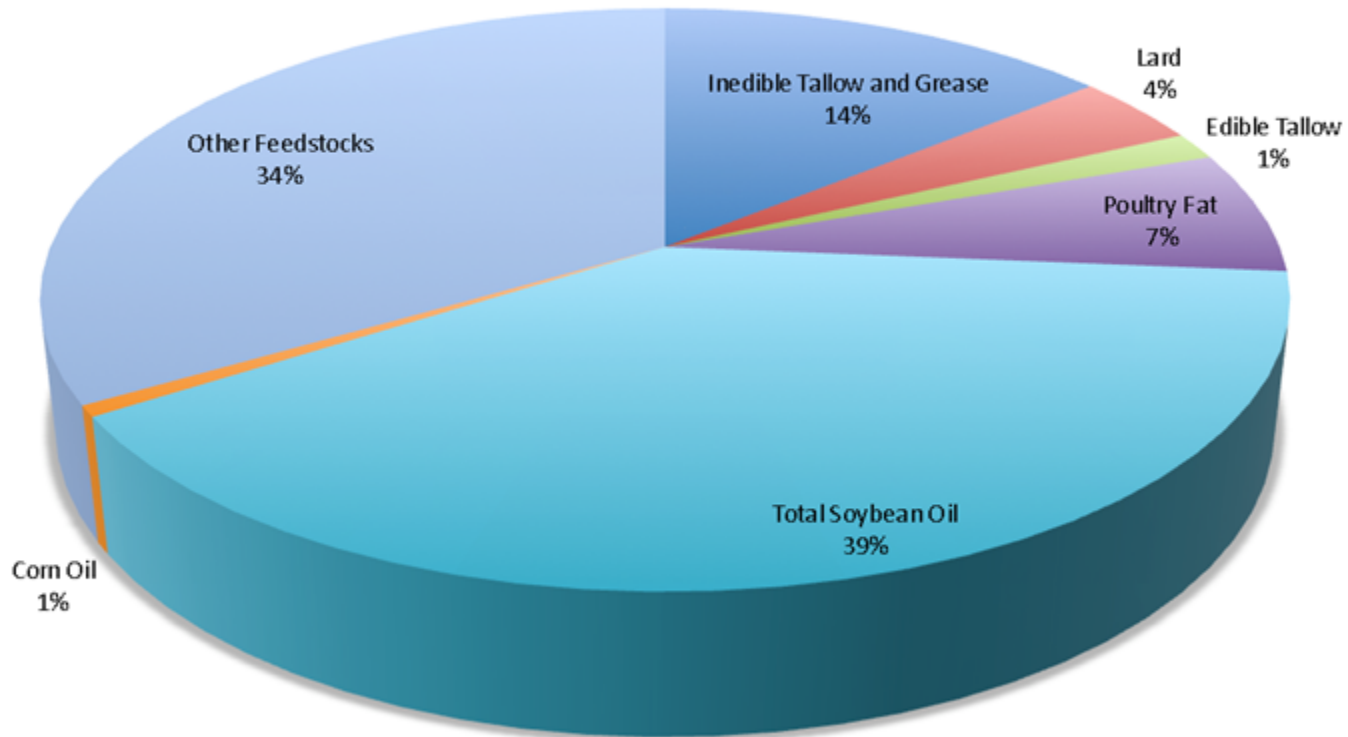


 BQ-9000 Producers

US Biodiesel Plants Plant Capacity by Feedstock



Feedstock Used in Biodiesel Production (Jan to Jul 09)



Note: Palm oil use included in "other feedstocks" category



Sustainable Industry Growth

- Will be dependent upon:
 - Blend economics (i.e. petroleum prices)
 - Feedstock availability (i.e. supplies)
 - Maintaining federal legislation
 - Consumer confidence



The Federal Landscape

- Federal Policy can serve as an effective catalyst for the biodiesel industry.
 - Biodiesel Blenders Tax Credit
 - Small Producers Income Tax Credit
 - Renewable Fuel Standard (RFS2)



- Energy Independence and Security Act of 2007 signed by the President on December 19, 2007
 - Increases RFS, to 9 billion gallons of renewable fuels in 2008 and to 36 billion gallons by 2022.
 - Within the RFS, creates a minimum use requirement for “biomass-based diesel” which is a technology neutral classification, and includes biodiesel.
 - Minimum usage requirements of 500 million gallons of biodiesel in 2009 up to 1 billion gallons in 2012.
- **To qualify, the fuel must meet a 50 percent lifecycle greenhouse gas emission requirement**

<u>Year</u>	<u>Volume in billions of gallons</u>	<u>Conventional Biofuels</u> (may include all fuels)	<u>Advanced Biofuels</u>	<u>Cellulosic Biofuels</u>	<u>Biomass-Based Diesel</u>	<u>Undifferentiated Advanced Biofuels</u> (All fuels except conventional)
2006	4.000	4.000				
2007	4.700	4.700				
2008	9.000	9.000				
2009	11.100	10.500	0.600		0.500	0.100
2010	12.950	12.000	0.950	0.100	0.650	0.200
2011	13.950	12.600	1.350	0.250	0.800	0.300
2012	15.200	13.200	2.000	0.500	1.000	0.500
2013	16.550	13.800	2.750	1.000	≥1.000*	0.750
2014	18.150	14.400	3.750	1.750	≥1.000*	1.000
2015	20.500	15.000	5.500	3.000	≥1.000*	1.500
2016	22.250	15.000	7.250	4.250	≥1.000*	2.000
2017	24.000	15.000	9.000	5.500	≥1.000*	2.500
2018	26.000	15.000	11.000	7.000	≥1.000*	3.000
2019	28.000	15.000	13.000	8.500	≥1.000*	3.500
2020	30.000	15.000	15.000	10.500	≥1.000*	3.500
2021	33.000	15.000	18.000	13.500	≥1.000*	3.500
2022	36.000	15.000	21.000	16.000	≥1.000*	4.000

* Administrator determines minimum use allocation for out years



**Immediate Need for
Implementation of a Biomass-based
Diesel program in 2010**

- The Biomass-based Diesel schedule requires the use of 500 million gallons in 2009 and 650 million gallons in 2010 (1 billion in 2012).
 - Biodiesel is the only fuel readily available in commercial quantities that meets the definition of Biomass based Diesel
- Congress required EPA to issue revised regulations by December 19, 2008 to ensure that the mandated volumes are met each year.
 - Implementation delay creating hardship for biodiesel industry

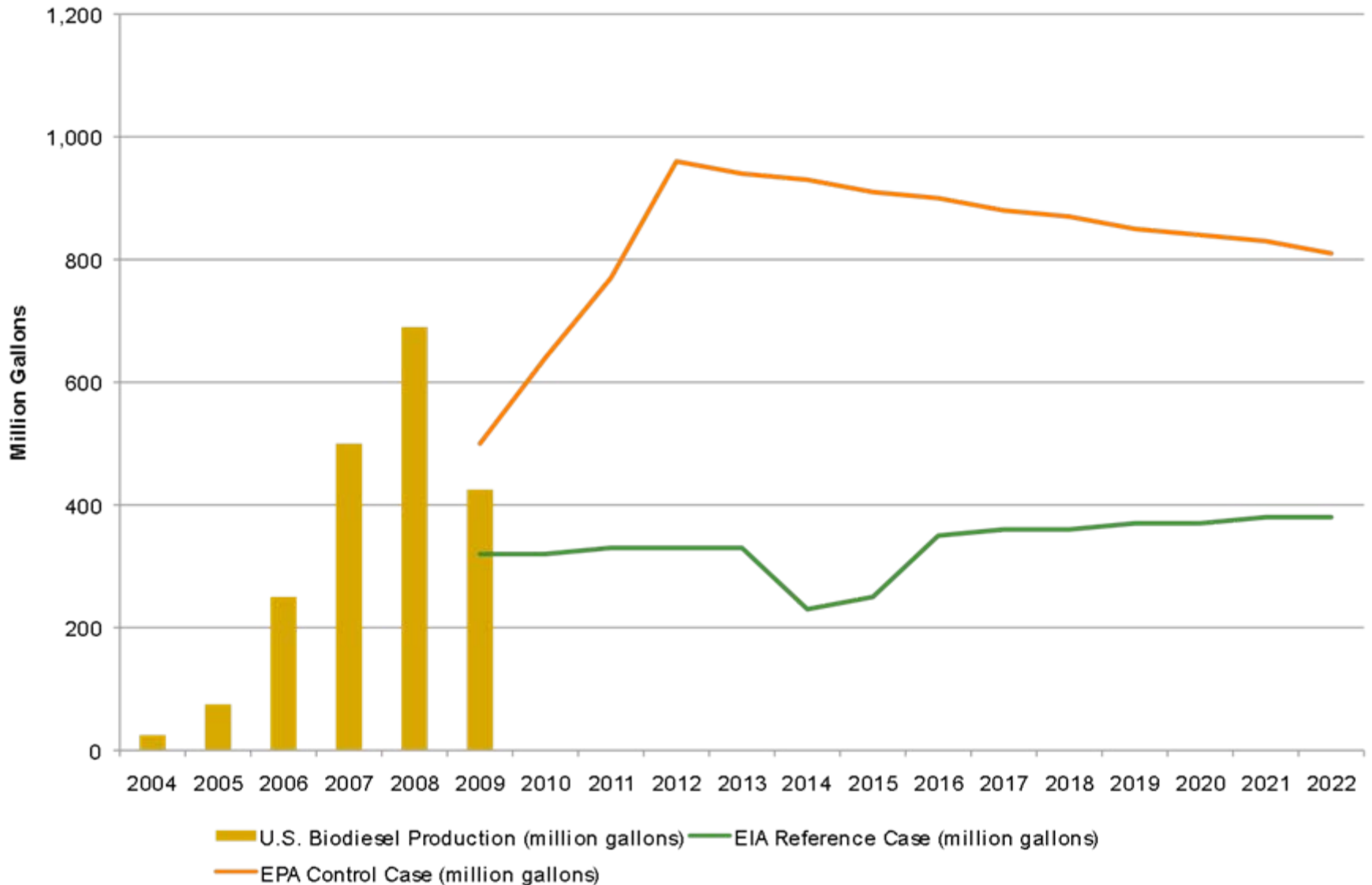
- The National Biodiesel Board urged EPA to issue renewable volume obligations this year for the 2010 required volumes for renewable fuel, advanced biofuels, and biomass-based diesel (which would include the 2009 volume for biomass-based diesel).
 - Current RFS regulations can be utilized until RFS2 finalized

Issues with EPA's lifecycle Analysis and Regulatory Impact Analysis

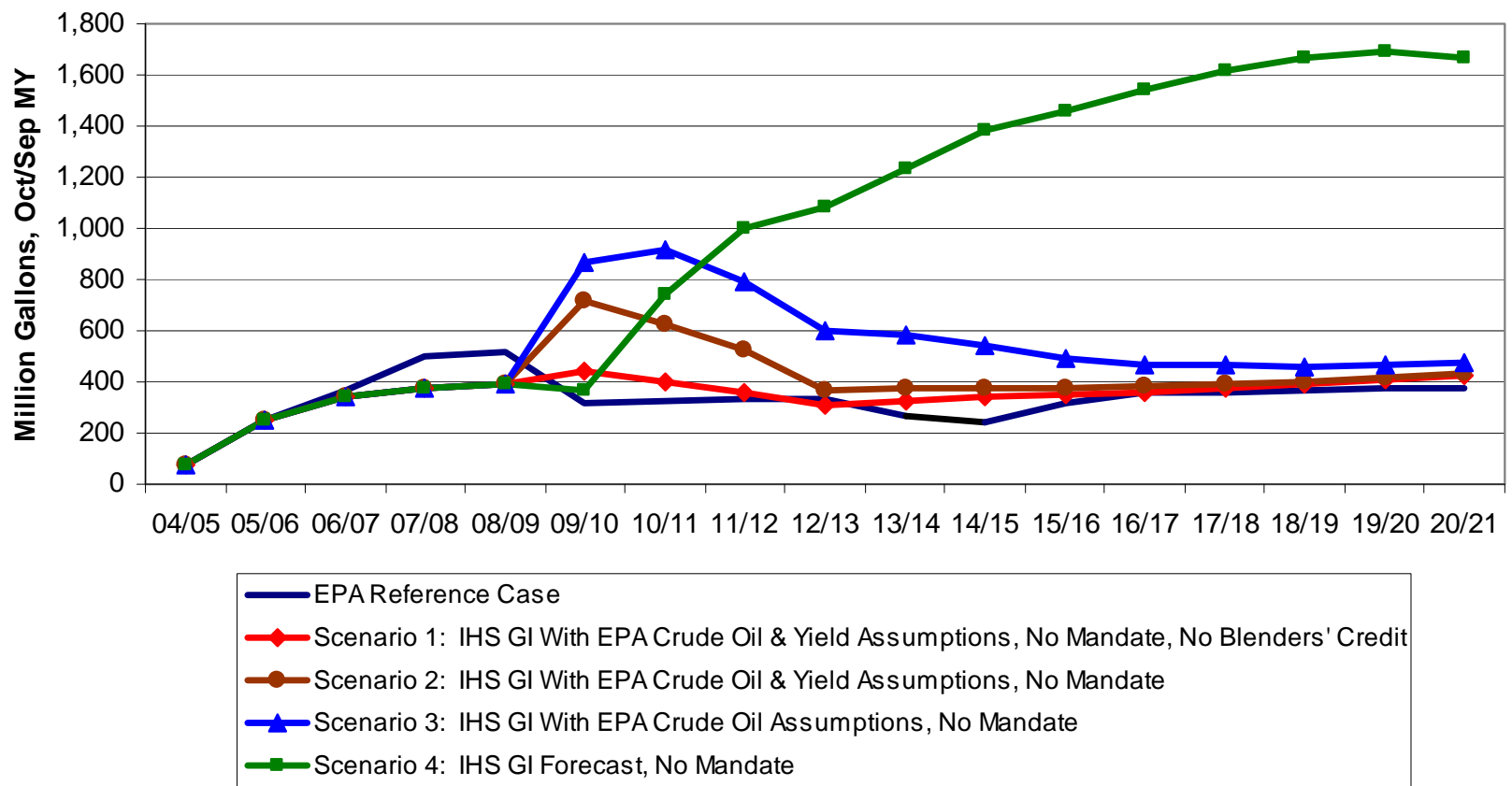
- In the proposed rule, EPA incorporates “indirect land use change” in their calculation of biodiesel greenhouse gas reductions.
 - Results in a 22% reduction for soybean based biodiesel (vegetable oil based biodiesel)
 - Leaves animal fat and waste feedstocks at 80%
 - Includes corn oil derived from dry grind ethanol plants DDGS

- 
- A faint, light-colored world map is visible in the background of the slide, showing the continents of North America, South America, Europe, Africa, Asia, and Australia.
- Theory suggests increase in commodity prices creates an increase in crop acres globally.
 - Further speculation asserts new acres come at the expense of tropical forests.
 - Biofuel/feedstock producers have no physical interaction with those clearing land.

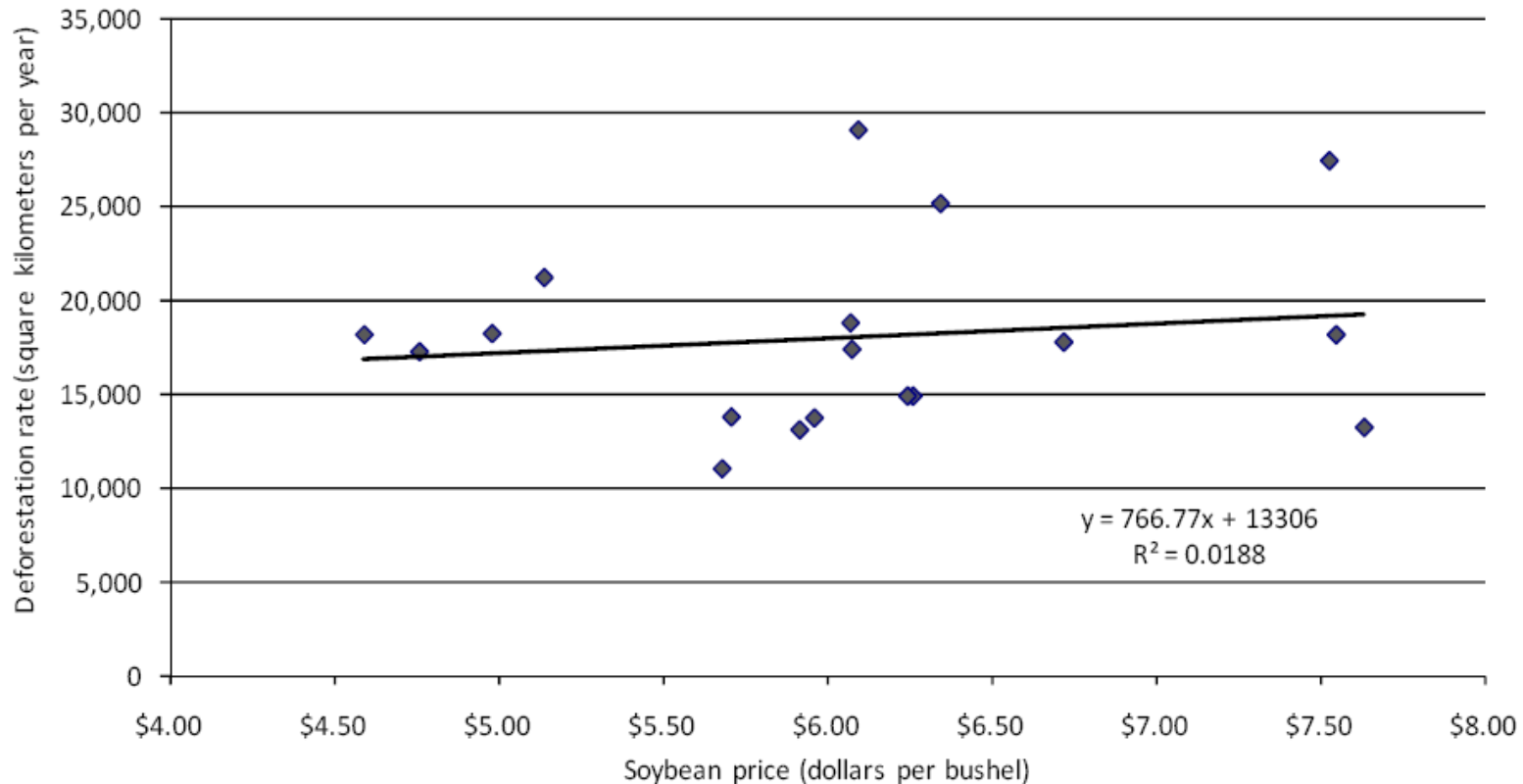
- NBB urged EPA that indirect emissions from ILUC not appropriate and shouldn't be included in final rule.
 - FASOM and FAPRI not intended to be used in this manner
 - Do not account for increased yields and efficiencies
 - Real world evidence shows that biodiesel production has little, if any, impacts on land use changes



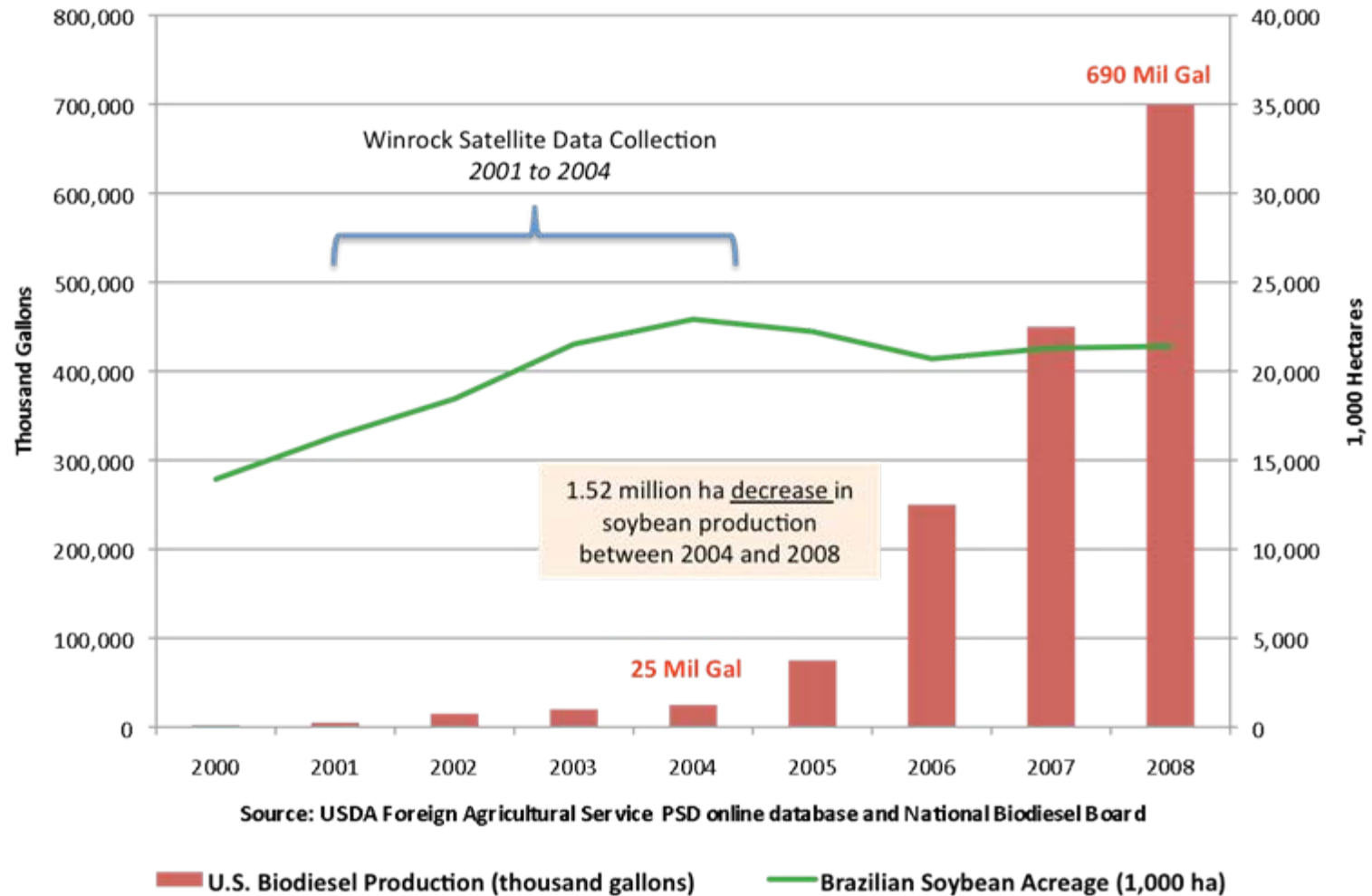
- EPA underestimates the biodiesel baseline.



Soybean Price and Deforestation



There is no correlation between the price of soybeans and the deforestation rate in the Amazonian rainforest of Brazil. The solid line is a “best fit” of the data, which shows a small positive linear correlation. However, the regression coefficient (R^2) of 0.0188 indicates virtually no statistically significant correlation (a value of 1.00 is a perfect correlation). Source: United Nations Food and Agriculture Organization (deforestation data) and Index Mundi (soybean price data).



- NBB urged EPA to update its modeling for biodiesel, which underestimates GHG emission reductions.
 - N₂O emissions as it relates to soybean production
 - Credit for glycerin co-product
 - Update energy balance

- EPA failed to follow 2006 IPCC Guidelines for calculating emission from nitrogen fixing plants.
- EPA faulted soy for N_2O emissions.
- Addressing this single issue reduces the soybean biodiesel emissions by 20,234 g CO_2 /mmBTU.



- The FASOM model does not deal with the non agricultural co-products like glycerine.
- While FASOM does not consider glycerine GREET does.
- Glycerine co-product value from GREET is 16,957 g CO₂/mm BTU of biodiesel. This is 17.5% of the emissions of the petroleum baseline.

	Vegetable Oils	Industry Average	EPA Estimate
Electricity (Kwh/gal)	0.12	0.19	0.09
Natural Gas (SCF/gal)	2.69	3.45	5.41
Total (BTU/gal)	3,184	4,192	3,850

37% of record 2008 volume represented by survey participants

NREL = **4,363** BTU/gal

USDA-ARS = **5,029** BTU/gal

Energy balance moves from 3.2:1 to 5.5:1

Scenario	Emissions ¹ , g CO ₂ /mm BTU	% Reduction	Percentage Change
Petroleum Baseline	4,173,768		-
Soy Biodiesel EPA	3,255,109	22.0	-
Less nitrogen fixing crops	2,383,009	42.9	20.9
Glycerine co-product	1,652,196	60.4	17.5
Biodiesel Energy	1,587,696	62.0	1.6

1. 100 year 2% discount rate



Implementation Issues with the RFS2 Program

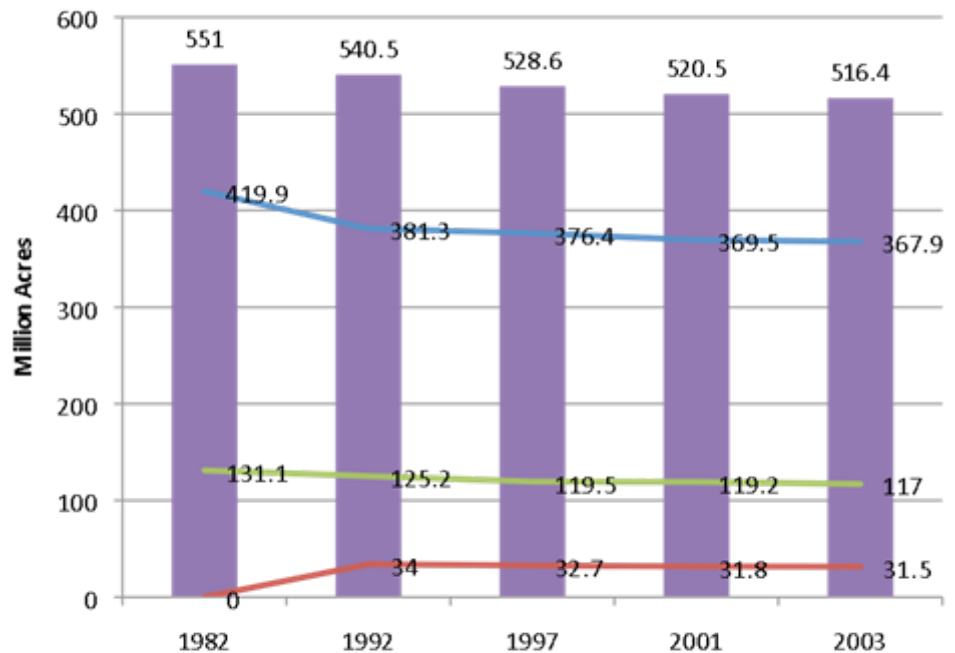


“Renewable Biomass” Definition

- EPA interpretation of “continuous” active management since December 19, 2007 will essentially require segregation of crops.
 - Segregation will increase feedstock prices and ultimately will be bourn by consumers
- No need for extensive administrative program related to the renewable biomass definition.

- U.S. cropland, as defined by EPA, continues to decrease in the U.S.
- Existing regulatory programs, such as Sodbuster, only allow certain cultivation activities.
- NBB urged EPA to focus on the few, if any, violators of these requirements.

Total Cropland, as proposed by EPA



Source: NRI

Total Acres
 Cropland
 CRP Land
 Pastureland

Consumer Confidence (Fuel Quality)

BQ9000 Program

- A voluntary quality system certification program for the North American biodiesel industry
- Applies internationally accepted quality management principles
- Incorporates fuel specifications
- Uses a series of audits to verify adherence to the company's own quality management system

AUDIT CHECKLIST

- 
- Audit Satisfactory
 - Non-conformances found
 - Observations made

- Three certifications possible for companies:
 - BQ-9000 Producer
 - BQ-9000 Marketer
 - BQ-9000 Laboratory (March 31, 2009)



[Home](#)

CONTACT US...

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MAIN MENU...

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- NBAC
- Contact Us

HOW TO GET STARTED ...

1. [Review Program Descriptions](#)
2. [Review Registration Process](#)
3. [Documents/Forms](#)

HOME...

The National Biodiesel Accreditation Program is a cooperative and voluntary program for the accreditation of producers and marketers of biodiesel fuel called BQ-9000®. The program is a unique combination of the ASTM standard for biodiesel, ASTM D 6751, and a quality systems program that includes storage, sampling, testing, blending, shipping, distribution, and fuel management practices.

BQ-9000® is open to any biodiesel manufacturer, marketer or distributor of biodiesel and biodiesel blends in the United States and Canada.

BQ-9000 PROGRAM REVISIONS & POLICY DEVELOPMENT...

The National Biodiesel Accreditation Commission is proposing revisions to the BQ-9000 Program Requirements for BQ-9000 Producers and BQ-9000 Marketers. The NBAC is asking for comments from the public regarding these changes. If you would like to submit electronic comments to the commissioners, please do so by January 26, 2009. Comments should be submitted to info@bq-9000.org by January 26, 2009.

- [BQ-9000 Marketer Requirements \(Rev 5\)](#)
- [BQ-9000 Marketer Revision 5 Change Summary](#)
- [BQ-9000 Producer Requirements \(Rev 6\)](#)
- [BQ-9000 Revision 6 Change Summary](#)

The National Biodiesel Accreditation Commission is proposing to implement the BQ-9000 Policies. The NBAC is asking for comments from the public regarding these policies. If you would like to submit electronic comments to the commissioners, please do so by January 26, 2009. Comments should be submitted to info@bq-9000.org by January 26, 2009.

EVENT CALENDAR...

- No events scheduled at this time

ITEMS OF INTEREST...

- [Training Sessions - Dates, Forms & Information](#)
- [Documents & Forms Page now contains all the forms you need](#)

ONLINE VIDEOS...

[Biodiesel Quality Video](#)

[Windows Media Player Required](#)

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