

Bioproducts Supply

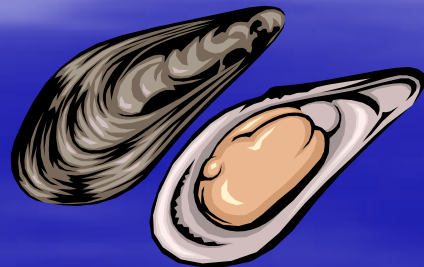
**NYSERDA's program:
The Vision**

Judy Jarnefeld



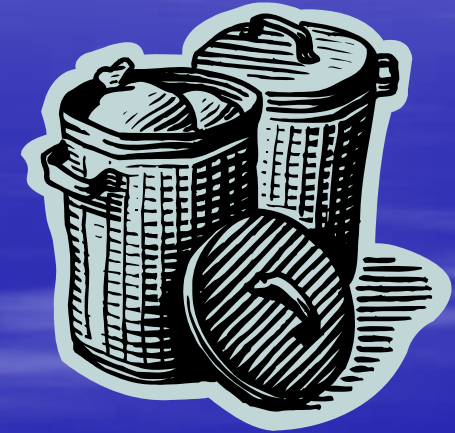
Bioproducts are:

- Heat
- Electricity
- Chemicals
- Transportation fuels
- Other



Abundant in NYS

- Forestry products
- Agricultural crops, residues
- Food processing wastes
- Woody crops



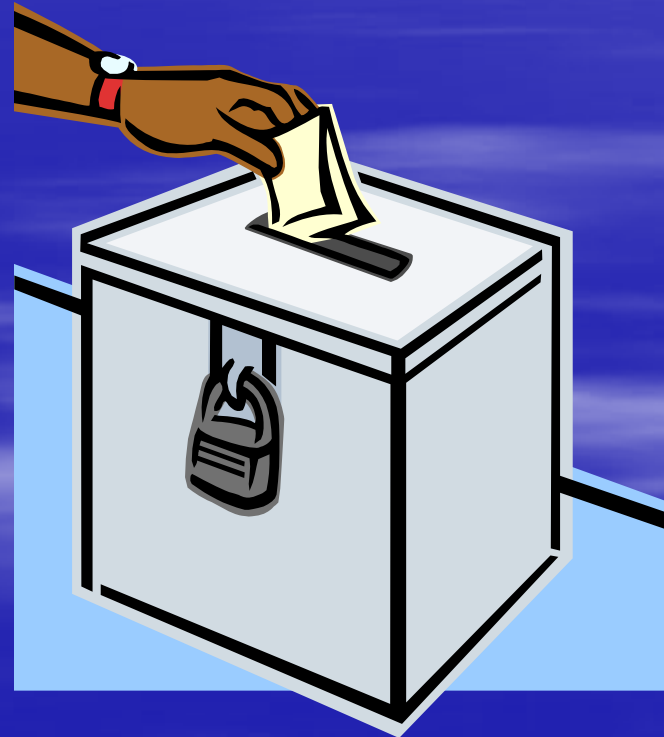
New York State GDP

Eleventh largest economy!



Why Biomass?

- Energy Independence
- Energy Security
- Sustainability
- Market Share



What is wrong with Biomass?

Varying:

- **Feedstocks**
- **Technologies**
- **Products**
- **Market Sectors**





R&D Interest Areas:

- **Improved Production economics**
- **Development of high-value products**
- **Development of new or improved feedstock supplies**
- **Integrated biorefineries**
- **Demonstration of next-generation technologies**

Easy to make?



Production Economics



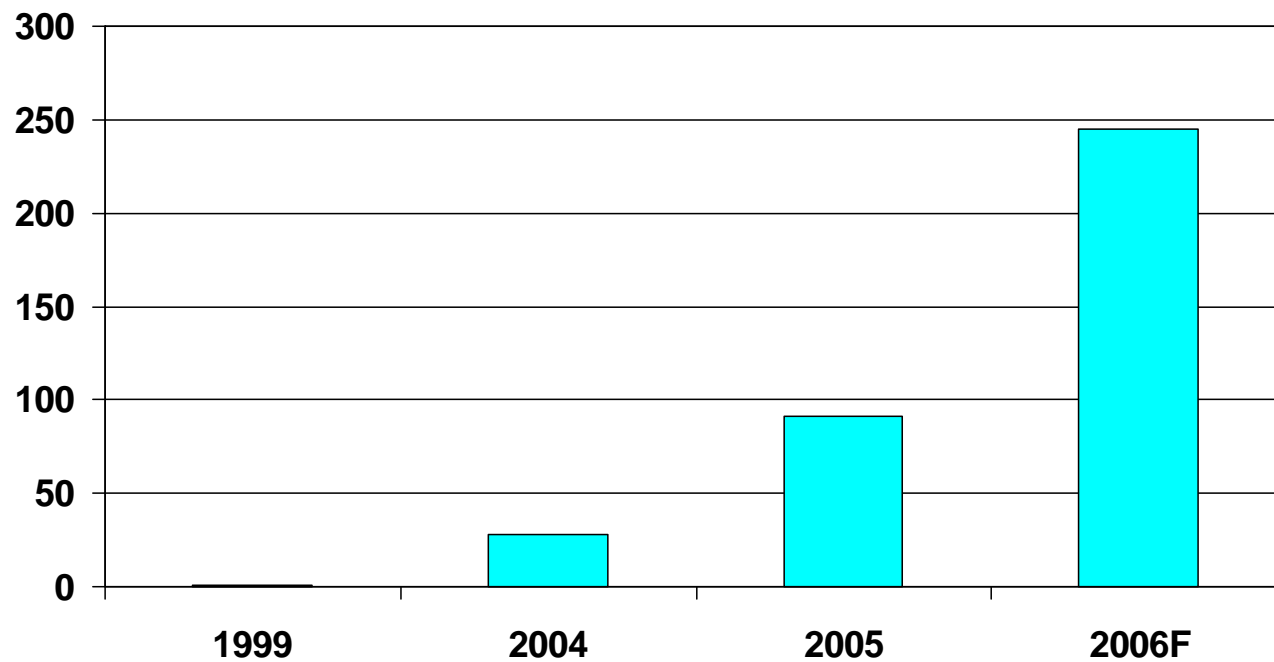
Feedstock Cost
Dominates Biodiesel
Economics



USDA 2005 Data

U.S. Annual Biodiesel Production

Mil gal.



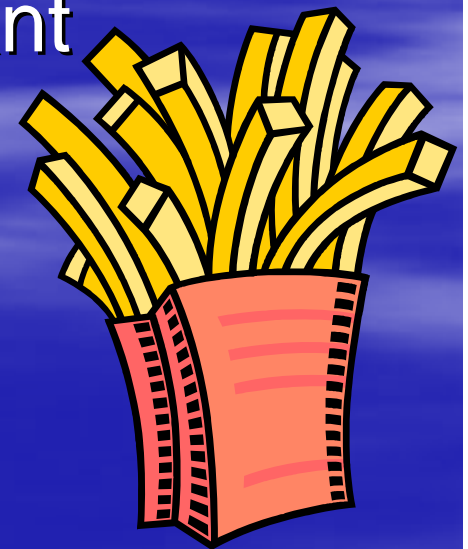
Feedstock Availability

Table 2.9
New York Biodiesel Feedstock Availability Summary

Feedstock	Potential Supply	Potential Biodiesel Produced
	<i>Mil Pounds</i>	<i>Mil Gallons</i>
Soybean Oil (max capacity)	48.3	6.5
Yellow Grease	180.5	24.1
Animal Fats	14.1	2.0
Total	242.9	32.6

Feedstock Supplies

- Billion-ton report: 1/3 by 2030 no problemo
- DOE Roadmap: \$50 to \$30 by 2015
- New crops take time and \$\$
- Willows – 20 years later...
- New York has diverse and abundant feedstocks



Corn ethanol

- Transition technology
- Destination Plants

- ADM
- Energy Balance
- Cost



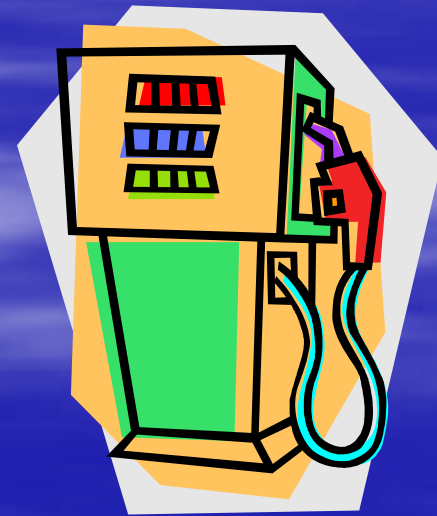
Cellulosic Ethanol

- **Next-generation technology**
- **Lots of processing options**
- **Has NYS capital, needs R&D**
- **Partnerships forming now**



All across NYSERDA

- Demonstrations: fleets, CHP, farms, homes
- Infrastructure
- Feasibility Studies
- R&D to address:
 - Cost
 - Technical barriers



Thank You

Judy Jarnefeld

