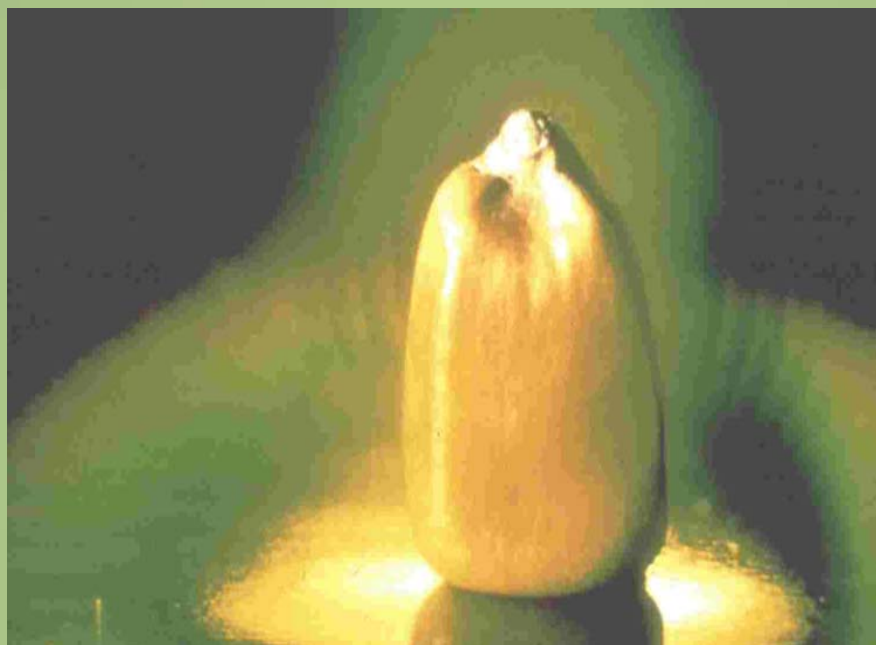


The National Corn Growers Association:



Rick Tolman, CEO

National Corn Growers Association



Plan

- 1. NCGA—Who are we and what do we do?
- 2. Current Activity Highlights
- 3. Review where we have been as an industry
- 4. Our vision of the future ...we are creating



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***NCGA's Mission:
Create and Increase
Opportunities for Corn Growers***

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NCGA Structure

Growing and Strengthening

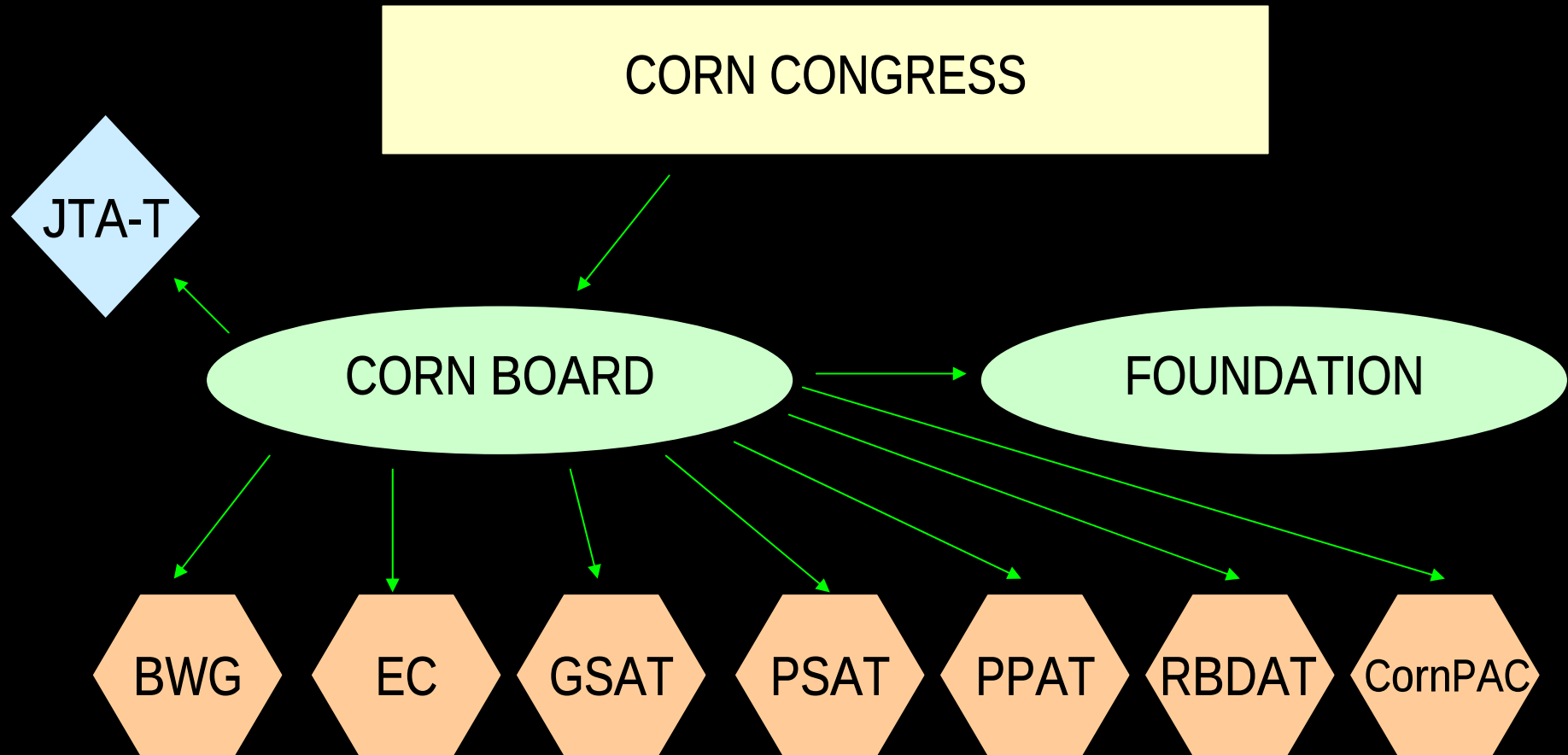
- Federation of 25 State Associations and 20 Checkoff Organizations
- NCGA Membership at an All Time High of Nearly 33,000



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Grower Led Organization

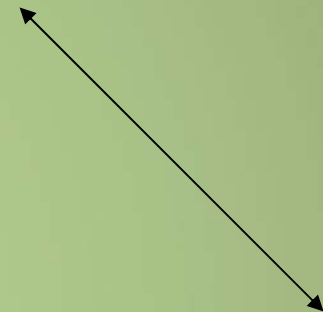
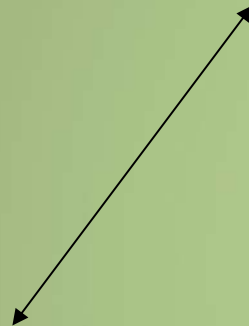




NATIONAL CORN GROWERS ASSOCIATION

Corn Board

Executes Policy and Overall Direction



Corn Congress

Sets Policy & Overall Direction

2 times/year

Representative Body

Elects Corn Board



Corn Action Teams/Committees

Defines & Implements Business Plan
for the Association as directed by the
Corn Board

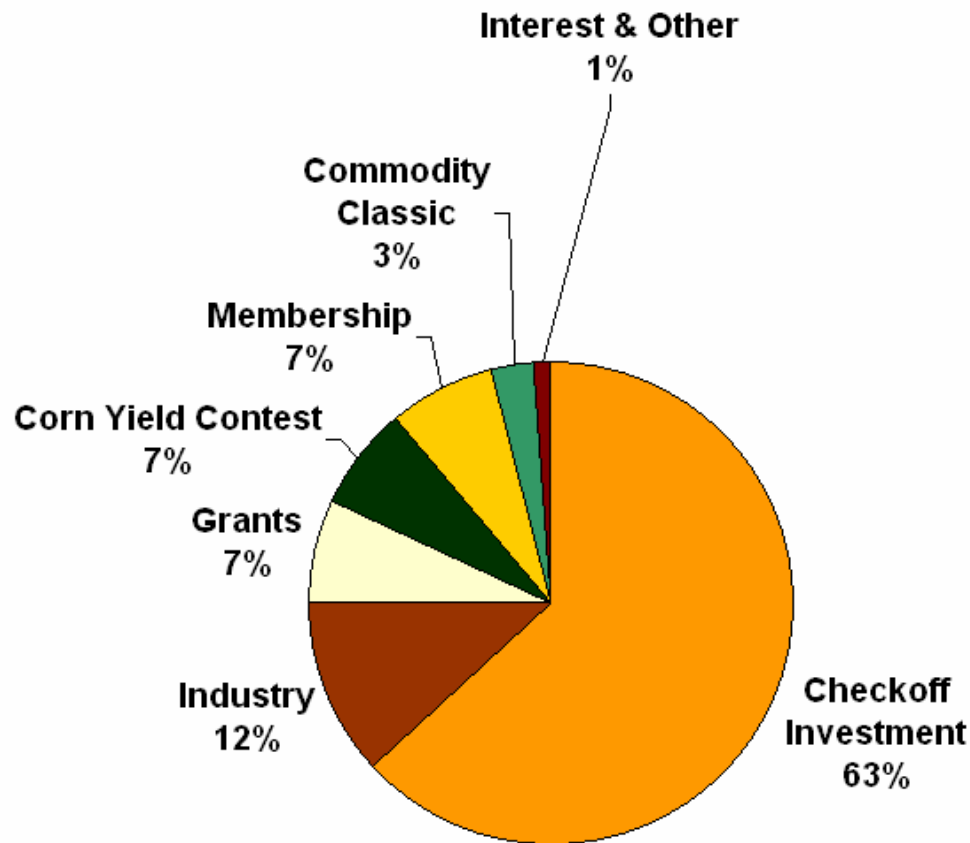
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NCGA Augments Checkoff Funding with Other Revenue

NCGA FY 2004 Revenue Sources*

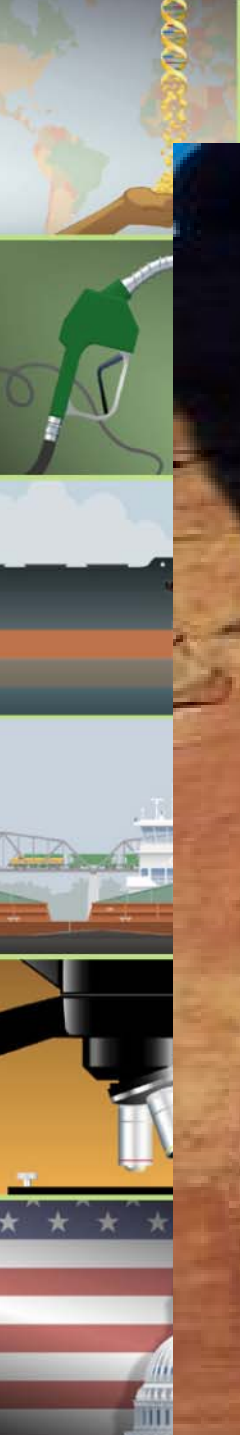


NCGA – What Sets Us Apart

- Corn Focused
- Grassroots Organization
- Cover the Entire Spectrum of Corn Issues Every Day
- Checkoff Funds are Highly Leveraged

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2. Current Activities



Biotech Working Group

- Herbicide Resistance
- Know Before You Grow
- Domestic and International Outreach
- Insect Resistance



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Ethanol Committee

- Aviation Grade Ethanol
- Ethanol Education and Communications
- Ethanol Regulatory Agenda
- RFS Implementation
- E-Diesel
- E-85



Production & Stewardship Action Team

- Transportation
- Conservation & Environment
- Water Quality
- Mycotoxin



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Research & Business Development

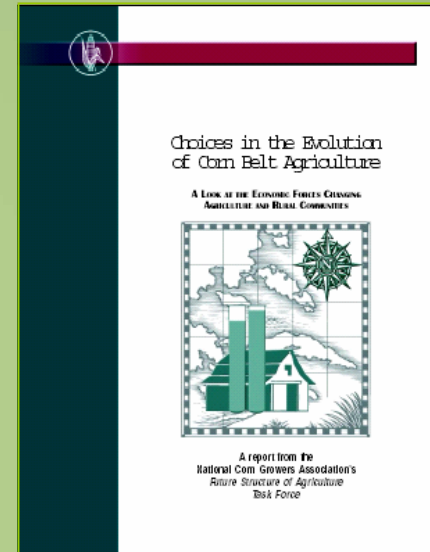
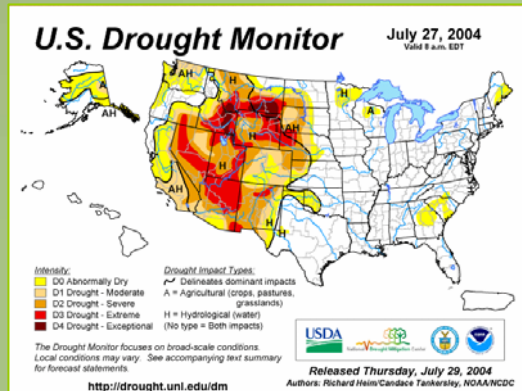
- Arabinose Project
- Research Pipeline
- Maize Genome
- Maize Trait Development
- Esters Project
- Livestock Program
- Distillers Solubles Nutrient Blocks
- Chemical Markets Study



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Public Policy Action Team



- Risk Management
- Farm Policy Mid-Term Review
- Future Structure of Agriculture Task Force II

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Joint Trade Policy A-Team

- Maximize synergies between NCGA and USGC
 - Trade update newsletter
 - Free Trade Area of the Americas Study
- Assess Trade Agreements
- USDA/USTR Agriculture Trade Advisory Committee
- Educate public officials on how trade issues impact corn producers
- Testimony to Congress

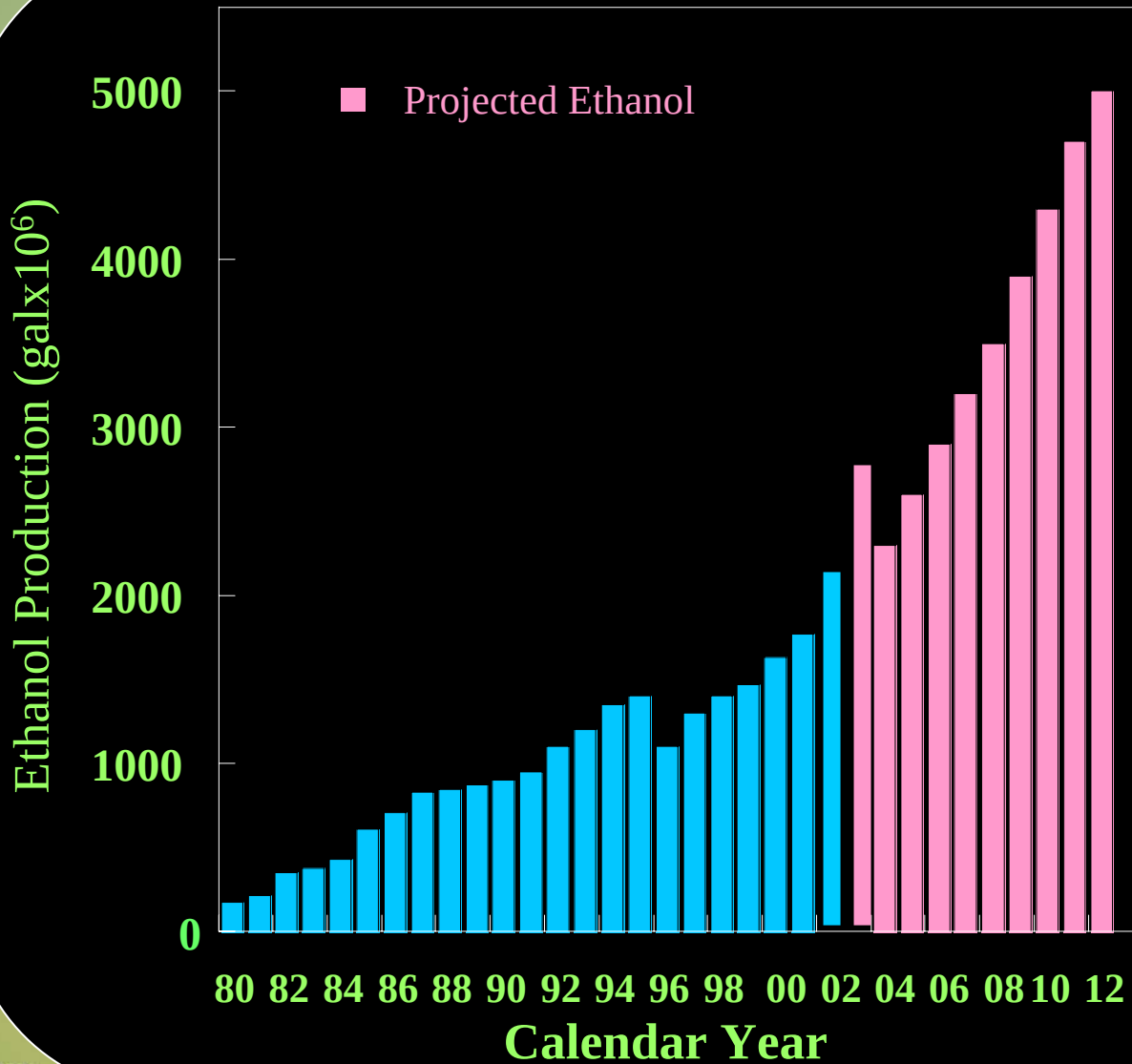


Grower Services Action Team

- DTN, News, Weather & Markets
 - Access to the latest information
 - One of NCGA's most popular resources
- SPECIAL PROJECTS
 - Ability to immediately respond to critical public relations issues
 - Example: high fructose corn syrup

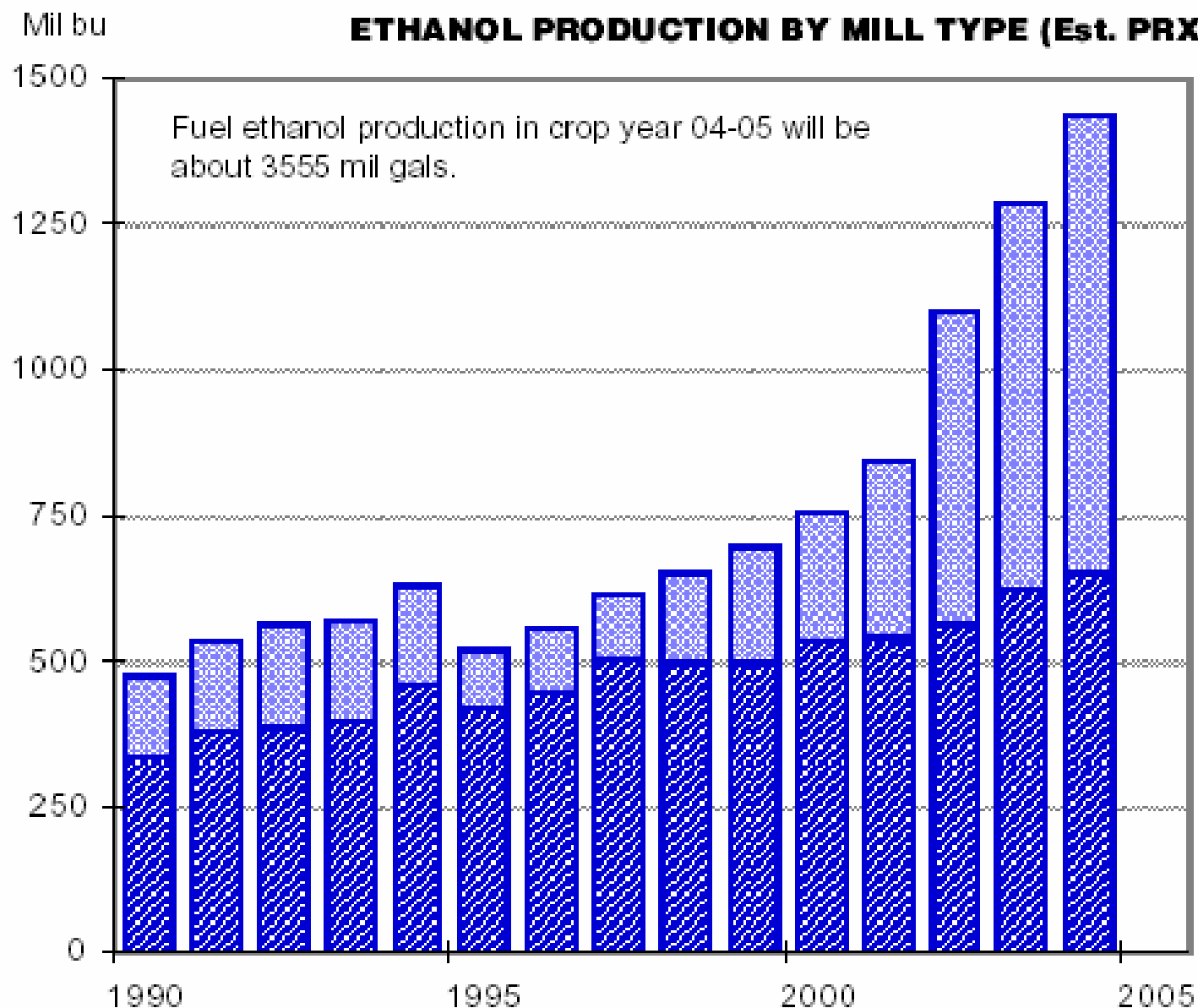


Proposed Ethanol Production



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ETHANOL PRODUCTION BY MILL TYPE (Est. PRX)



The PRX database of US processors by company goes back to 75-76 and estimates output by product—from which we can in turn estimate dry vs wet milling, and their co-products. Such data is not available from government sources.

PRXfile:US_SDforecast_Prez
FSI, PRXrev. 12-Jan-04.
USDA: 12-Jan-04. For
Scenario GTB-03-12.



Representation

- USDA/DOE Biomass
- NCFAR
- ACA
- USGC
- USDA Research Advisory Committee
- USDA Biotech Advisory Committee
- USDA/USTR – ATAC
- MARC2K – Board



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U.S. Agriculture Under Attack...



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Promoting Agriculture: NCGA FIGHTS BACK



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Livestock

- Myths and Misinformation
- DDGS seminars
- Coalition
- Working with States



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NCGA Meetings and Seminars

- Trade School
- Corn Co-Products
- Choices—Corn Belt Evolution
- So You Want to Build... CA
- Pharma Corn Summit
- Labelling and Traceability



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Partnering and Commercialization Opportunities

- **ADM**
- **Monsanto**
- **Michigan State University**
- **Divergence**
- **Pioneer**
- **Agnosco**
- **Others**



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3. Looking back and looking ahead?



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Task Force on the Future Structure of Ag

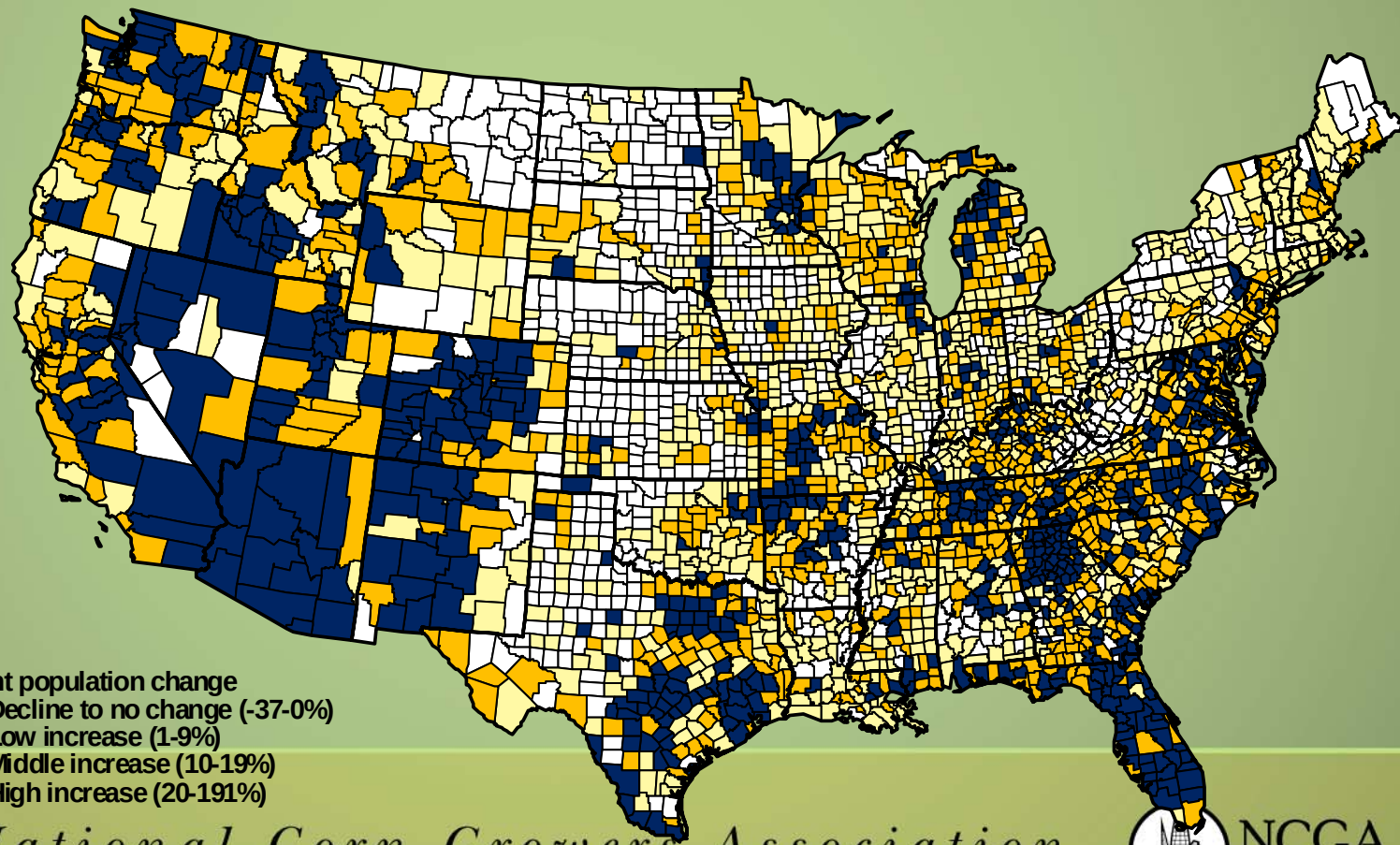
- Organized in 2000 by NCGA – Part II - 2004
- Mission:
Determine impact of industry changes on the family farm in the first decade of the 21st Century.



What Will Agriculture Look Like in the Future? **Future Structure of Ag Task Force**

- Two worlds are emerging
 - Commodity focus
 - Value-added focus
- What are the possible outcomes?
- What do farmers need to know?
- What will drive the future?
 - Strategic investments in rural development
 - Strategic investments in value-added ag

Population Growth (1990-2000)

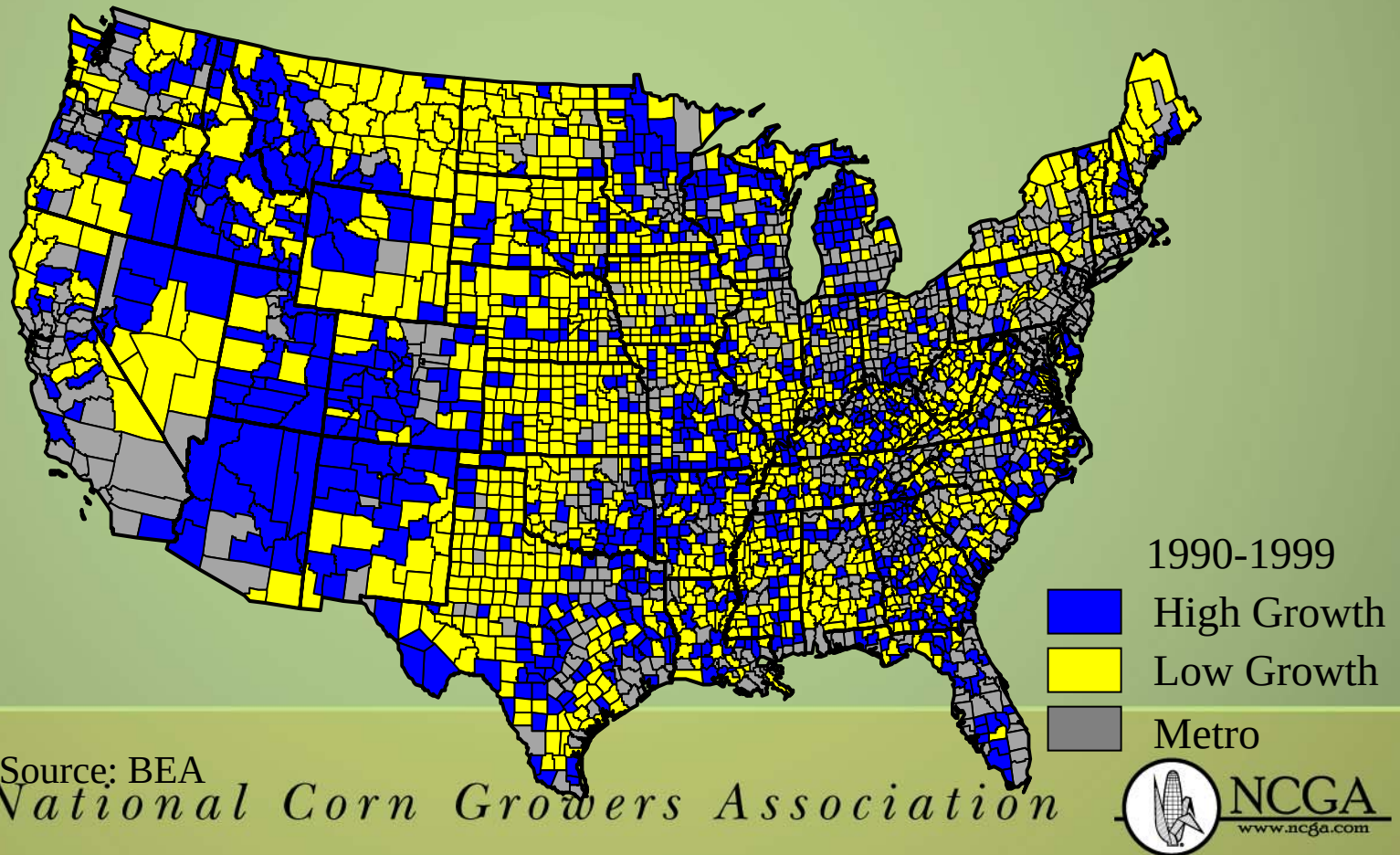


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Source: U.S. Census Bureau



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Economic Gains are Uneven Across Rural America...



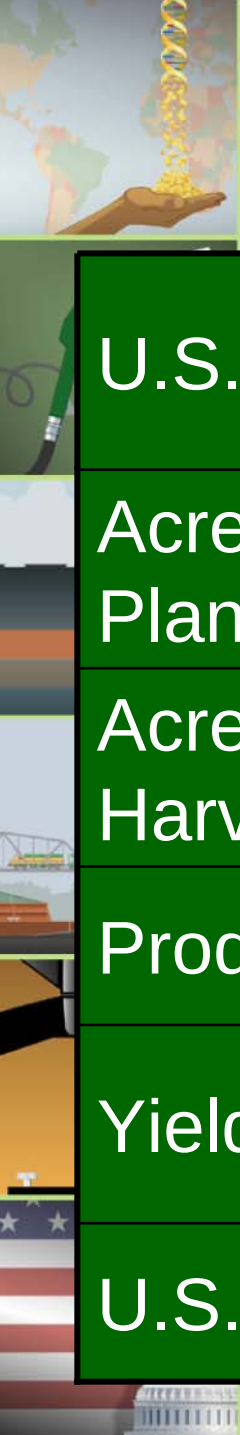
The New Ag Poses Problems

- One size does not fit all.
- Massive government assistance has not helped.



The World of Commodity Corn

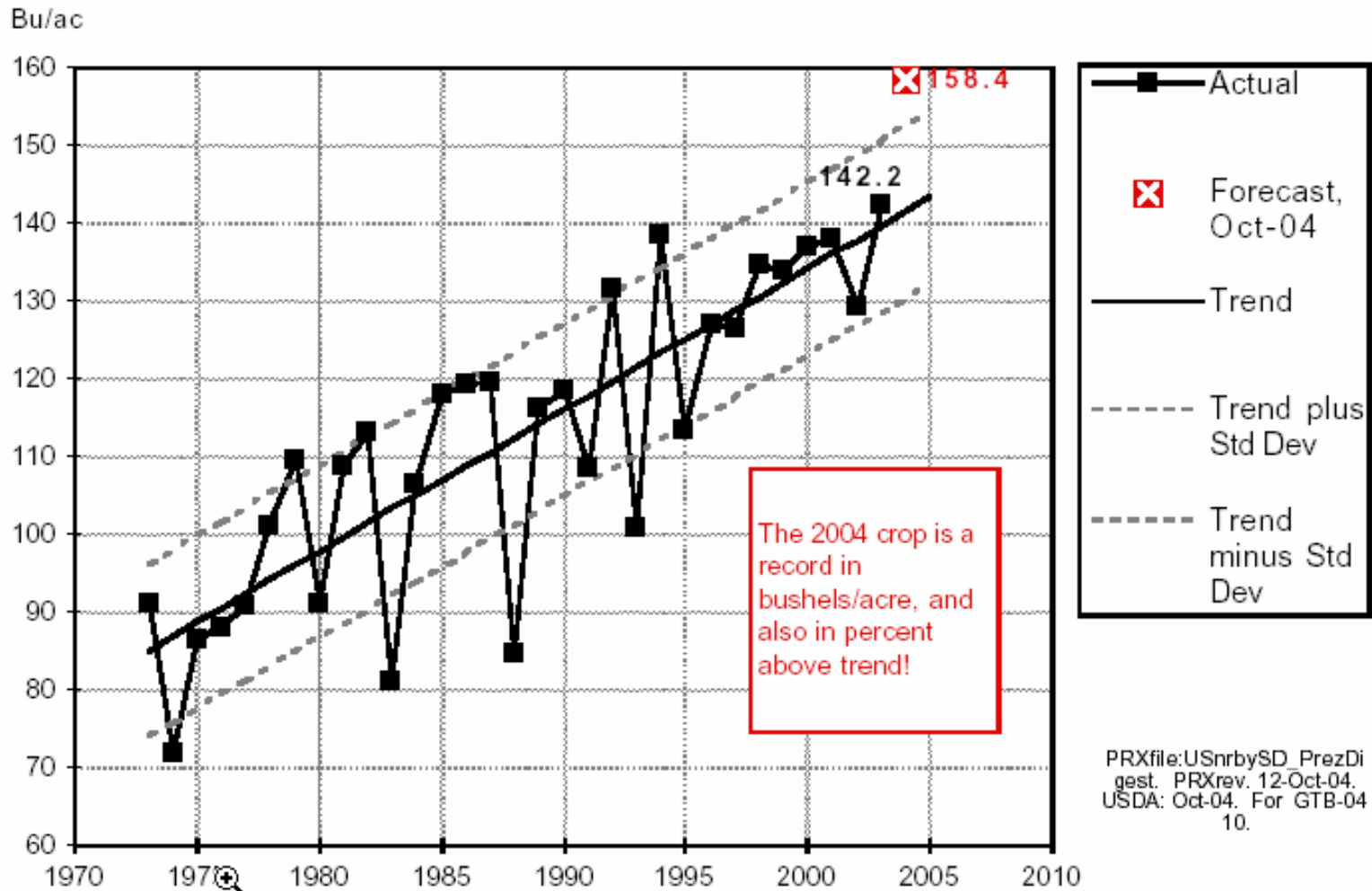
- Requires economies-of-scale
 - Razor-thin margins
 - Decreasing production costs
 - Depressed market prices to compete in global market



Historical Comparison of Corn Production

U.S. Corn	1931	2003	% Change 1931-2001
Acres Planted	109 mil	79 mil	-28
Acres Harvested	91 mil	71 mil	-22
Production	2.2 Bil Bu	10.1 Bil Bu	+359
Yield	24.5 Bu/Acre	142 Bu/Acre	+480
U.S. Pop	123 mil	281 mil	+128

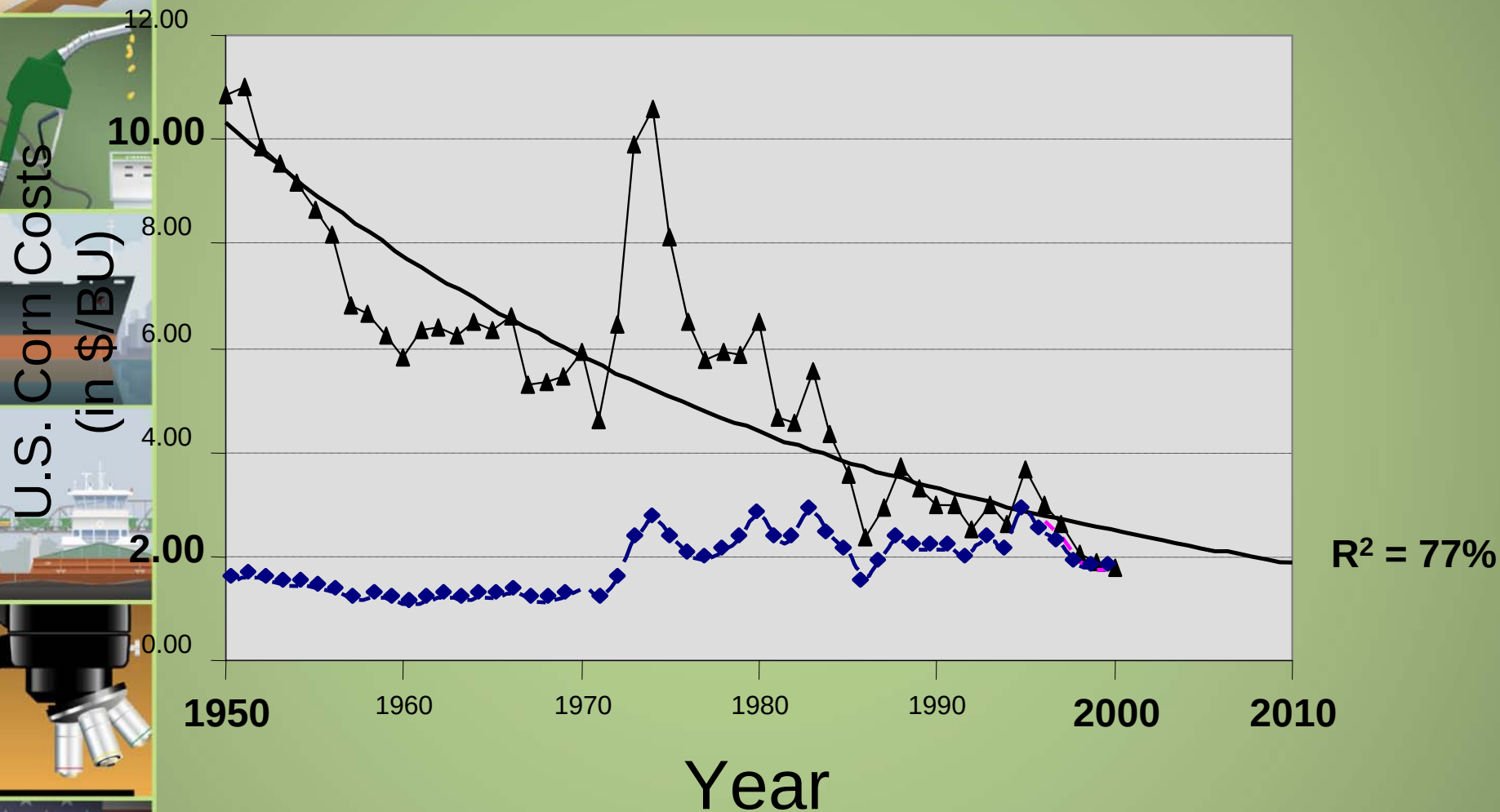
US CORN YIELD, 1973-2004



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Declining Cost of Corn with Time



▲ in Real 2000 constant \$
 ◆ in Nominal, historical \$

The World of Value-Added

- Smaller scale, higher value
 - Tighter relationship between producer and processor
 - High-value contracts
 - Closed loop cooperatives
 - Not a 'one size fits all' market
 - Greater focus on end use

Future Structure of Ag Task Force Concepts

- Old structure of agriculture values land, machinery and tools
- New structure of agriculture values knowledge, information and relationships

Those who flourish must be willing to...

- Change and adapt
- Challenge their comfort zones
- Create competitive advantages rather than protect old ones



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Policy Recommendations



- Bio-Based Materials
- Promote Specialty Ag
- Enhance Export Initiatives
- Update Co-op Leg
- Promote Science Based Research

Future Structure of Ag Task Force

Conclusions

- Embrace change—future looks bright.
- Lose independence but gain the advantages of interdependence

Future Structure of Ag Task Force

- Next Steps....
- New Task Force Formed to Put Recommendations into Action
- Looking at Business Models; Co-op Legislation and Tax Legislation



4. Vision of the Future ... We Are Creating

- Trade: a fair and level playing field
- Ag – Solution for U.S. Economic Growth
- Farmers control their own destiny



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Tomorrow's Vision

Hydrocarbons to Carbohydrates

- **An Integrated Biorefinery**
 - value added chemicals
 - niche markets
 - new chemicals
 - partnerships/alliances
 - licensing agreements
 - IP ownership
 - new technology

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Proposed Strategy

Ag – Engine for U.S. economic development –

- Renewable Energy
- Bioproducts
- Health and Nutrition
- Environment

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Agriculture and More



USES

Fuels:

- Ethanol
- Renewable Diesel

Electricity

Heat

Chemicals

- Plastics
- Solvents
- Pharmaceuticals
- Chemical Intermediates
- Phenolics
- Adhesives
- Furfural
- Fatty acids
- Acetic Acid
- Carbon black
- Paints
- Dyes, Pigments, and Ink
- Detergents
- Etc.

Food and Feed

Feedstock

- Trees
- Grasses
- Agricultural Crops
- Agricultural Residues
- Animal Wastes
- Municipal Solid Waste

Conversion Processes

- Acid/enzymatic hydrolysis
- Fermentation
- Bioconversion
- Chemical Conversion
- Gasification or Pyrolysis
- Combustion
- Co-firing

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- [illegible]

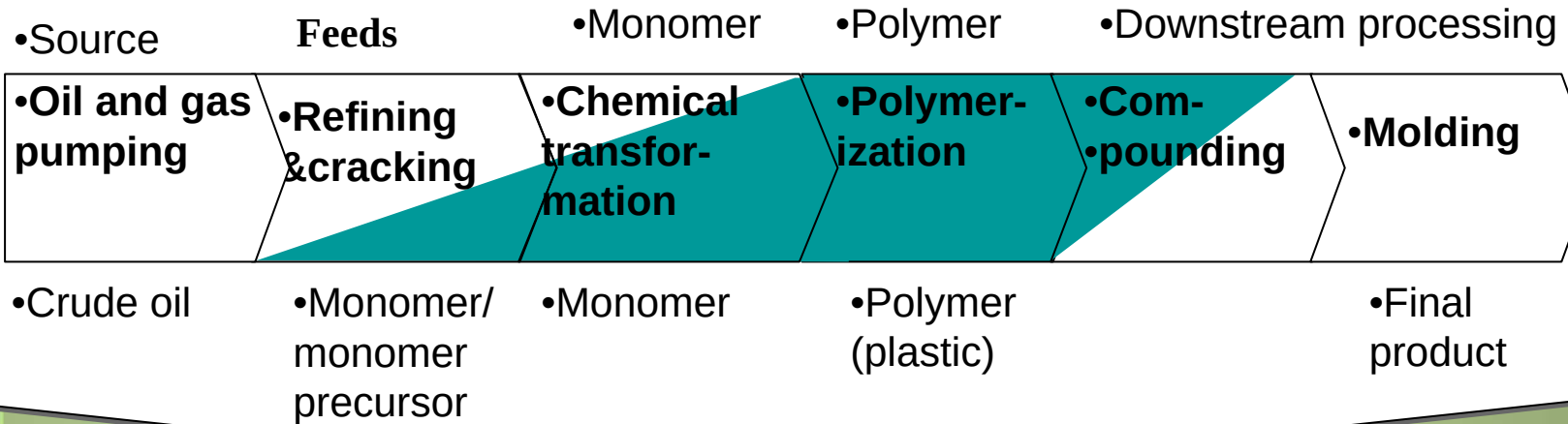
Biotechnology – Harnessing Corn Traits

- The goal of the Maize Traits Program is to develop important agronomic traits that lower production costs or increase the value of the harvest.
- Specifically, NCGA is working to develop a nematode resistance trait that will protect crops, as well as grower health and the environment.
- The NCGA is also investigating other traits that will add value to the growers.

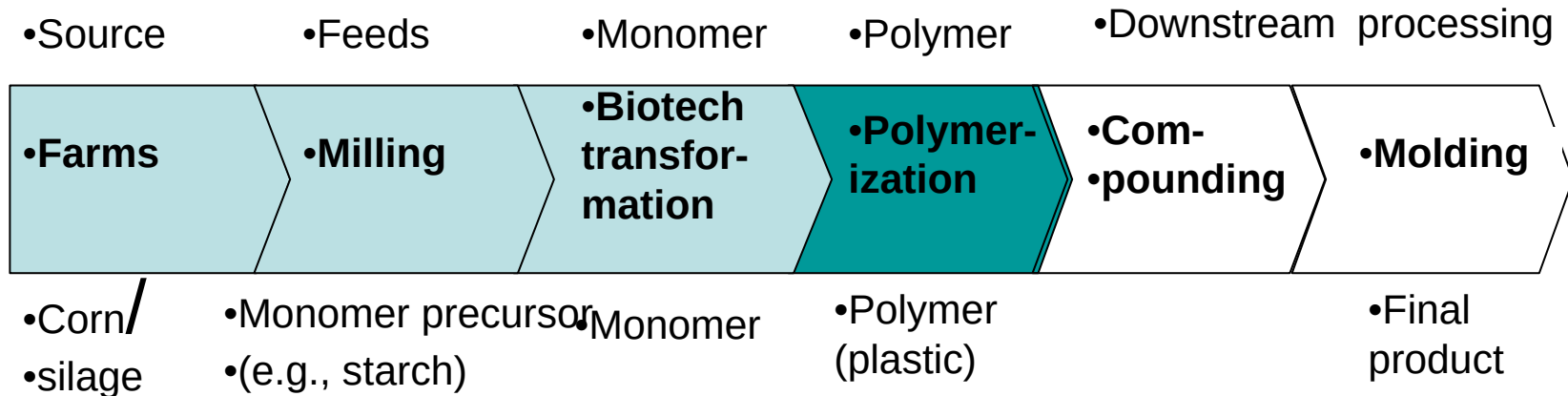


Technology - an enabler to create a new value chain

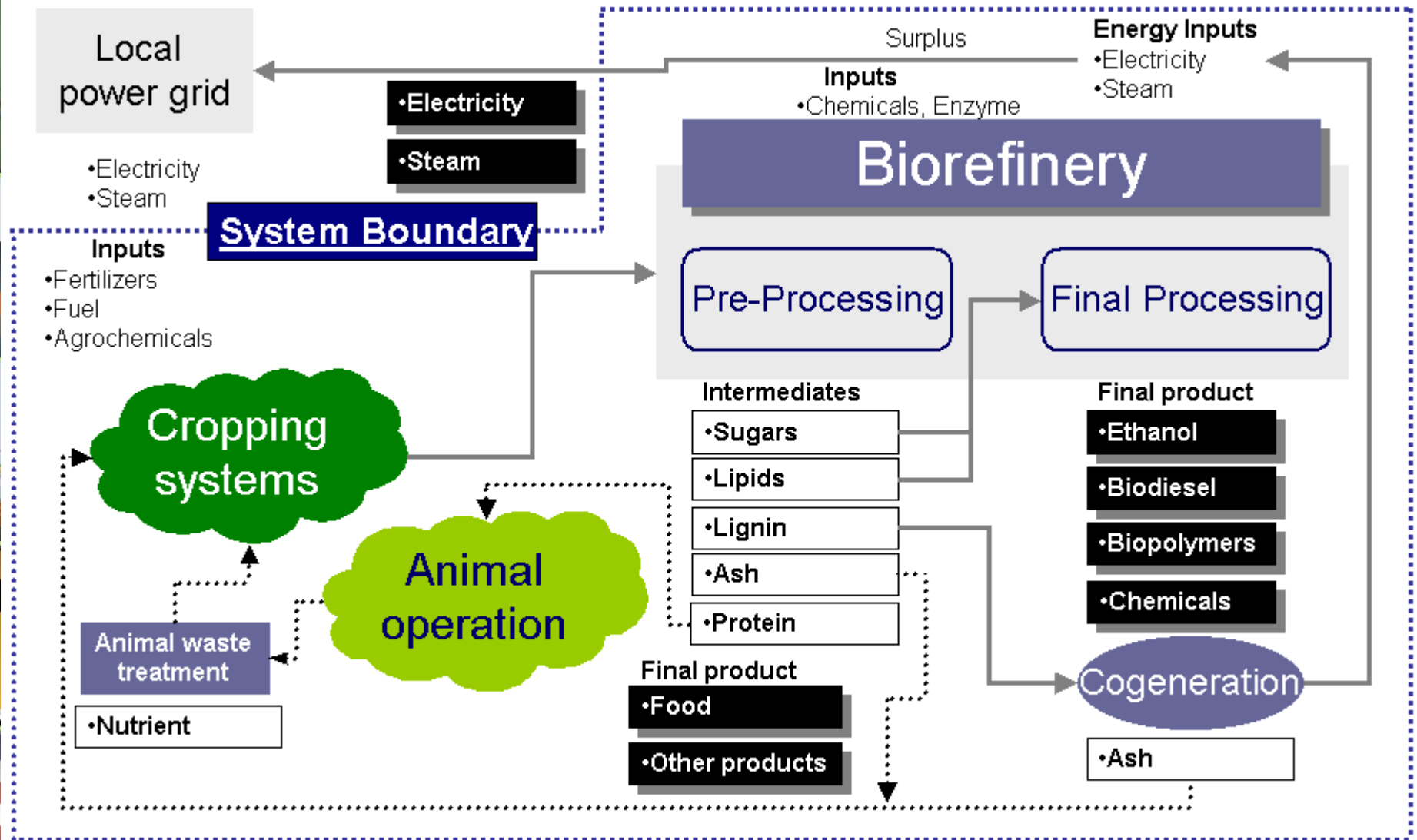
•Current polymer value chain



•New polymer value chain 2010



Industrial Ecology Model



US CORN FOOD & INDUSTRIAL USE

12-May-04

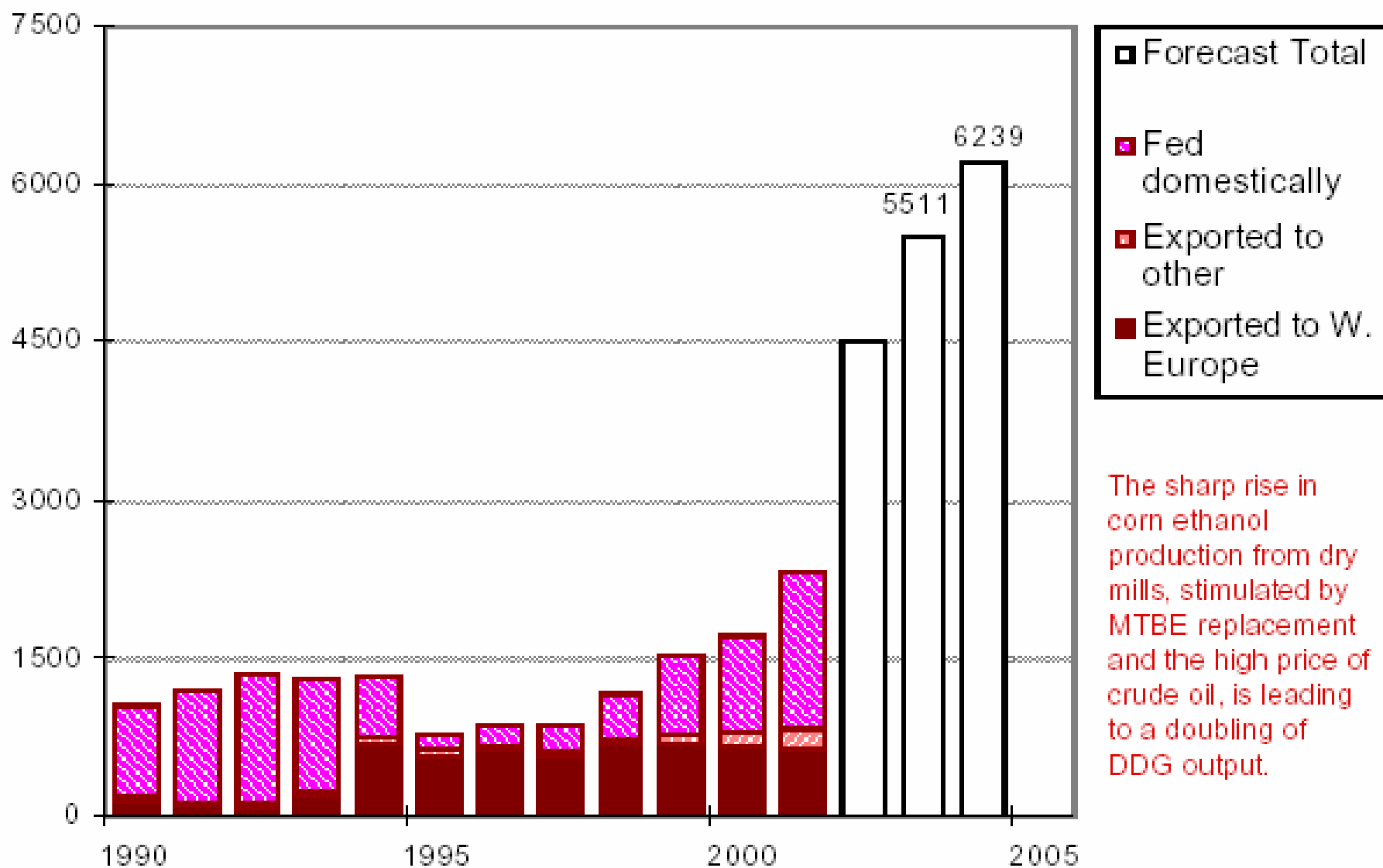
Item	Unit	02-03	03-04	04-05	Change
Corn for beverage ethanol	milbu	132	133	135	1
Corn for fuel ethanol	milbu	<u>971</u>	<u>1159</u>	<u>1305</u>	<u>146</u>
Total corn for ethanol	milbu	1103	1292	1440	147
Fuel ethanol production	milgals	2631	3149	3555	406
Dry mill corn for ethanol	milbu	536	749	809	60
Wet mill corn for ethanol	milbu	<u>567</u>	<u>544</u>	<u>631</u>	<u>87</u>
Total corn for ethanol	milbu	1103	1293	1440	147
HFCS	milbu	<u>545</u>	<u>546</u>	<u>551</u>	<u>5</u>
Glucose and dextrose	milbu	221	220	222	2
Starch	milbu	<u>228</u>	<u>244</u>	<u>246</u>	<u>2</u>
Cereals and food	milbu	186	188	190	2
Subtotal	milbu	<u>1180</u>	<u>1198</u>	<u>1209</u>	<u>11</u>
Total Food & Industrial	milbu	2025	2550	2650	100

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DISTILLERS GRAIN PRODUCTION (Est. PRX)



Corn: Now and Future

- Polylactic Acid
- Sorona
- Ethanol
- Livestock Feed
- Co-Products
- Ethanol based Fuel Cells
- Carbon Dioxide Utilization
- Polymers
- Fuels
- Solvents
- Nutraceuticals

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Five Ways NCGA's Investment in Research and Business Development Makes a Difference

1 Supporting maize traits and genomic research

2 Creating innovative and commercially viable new uses for corn

3 Researching ethanol processes that will extract more value from every kernel

4 Working to deliver added value to the livestock industry

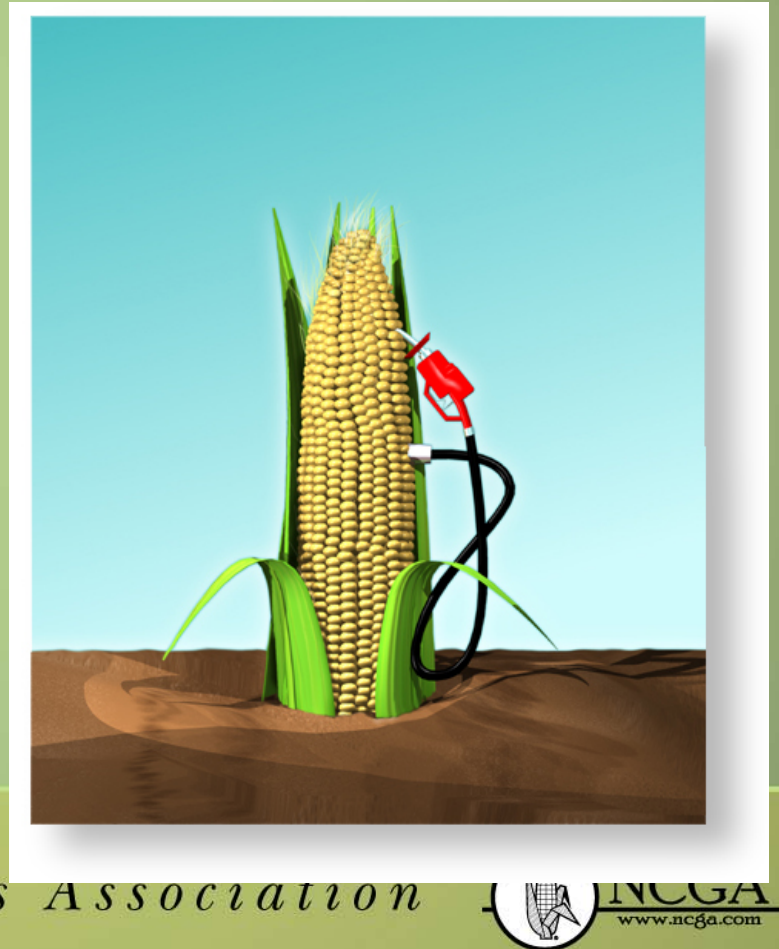
5 Driving commercial development that creates opportunity in rural America

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Ethanol Related Research

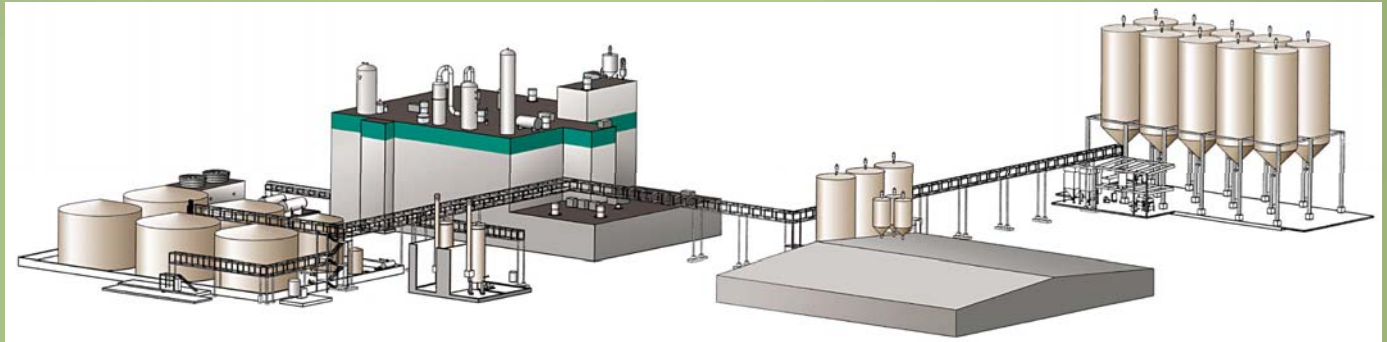
- Fiber
 - Separation of Fiber and Conversion to Fuels and Chemicals
- Arabinose
 - Develop yeast capably of utilizing hemicellulose sugars.



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Commercial Development



- Polyols
 - Marketing NCGA technology to industry partners
- Bioproducts Industry Development
 - Support for emerging bioproducts industry

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Corn Based Products

NCGA compiled this directory of products by category, application, supplier, and descriptions.

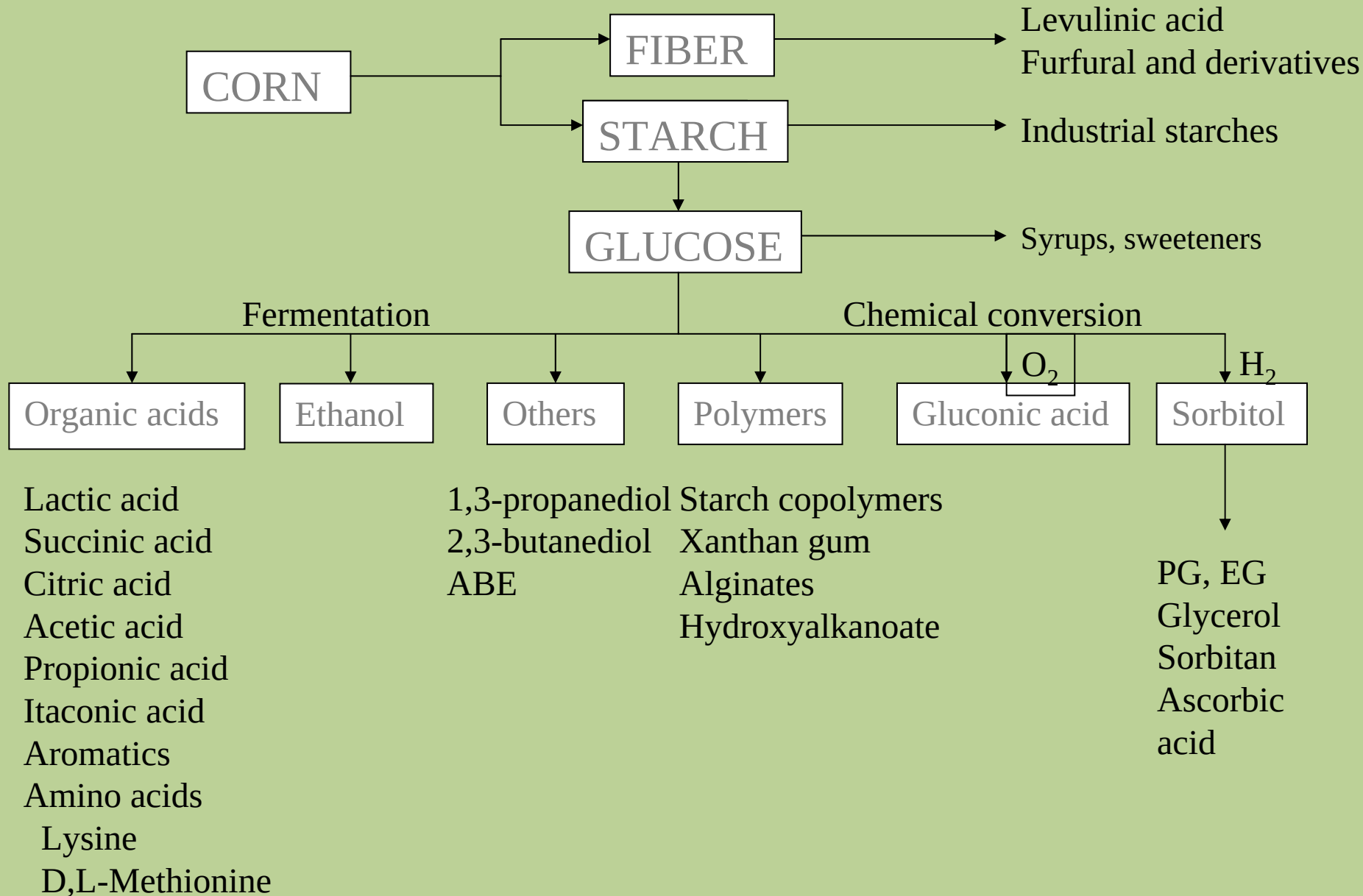


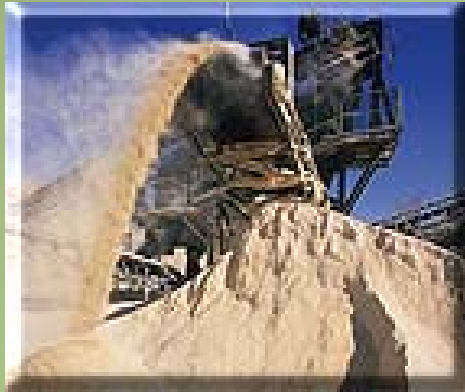
- Over 600 corn based products listed
- Looking for more products every day
- www.ncga.com

ers Association



CHEMICALS FROM CORN





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Food Service



Nat

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PLA



ers Association

Sorona

- DuPont Sorona 3GT Polymer



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Future Concepts



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NCGA is Alive and Well

We are excited about our
future!



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**Thank you for your
time!**

Questions?

***(Visit us at:
www.ncga.com)***

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