

TURNING BIOMASS INTO BUSINESS

Iowa is already known as a leader in the biofuels industry, thanks in large part to the abundant natural resources available and the support provided by the state to encourage development. Iowa is also a world leader in the production of both corn and soybeans, the principal feedstocks for the biofuels industry. Another great asset – Iowa produces the nation’s second largest supply of biomass with the ability to harvest 14.4 million dry tons of biomass annually (total cellulosic and crop biomass). Additionally, Iowa can boast one of most robust industrial biotechnology infrastructures available in the United States.

All of that presents a unique opportunity to advance Iowa’s economy by focusing on the use of biomass as feedstocks for the production of building block chemicals.

If we act now, we can take Iowa’s leadership position to the next level. Wherever we produce biofuels, we can also produce building block chemicals.

BY THE NUMBERS

IOWA RANKS

1st

IN CORN PRODUCTION

2nd

IN SOYBEAN PRODUCTION



IOWA HAS THE

2nd

**LARGEST SUPPLY OF AVAILABLE BIOMASS
14.4 MILLION DRY TONS PER YEAR**

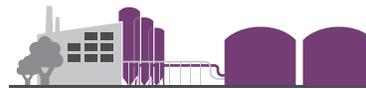
IOWA LEADS THE NATION

IN ETHANOL PRODUCTION WITH

43 FACILITIES

PRODUCING OVER 27%

OF THE TOTAL U.S. ETHANOL PRODUCTION

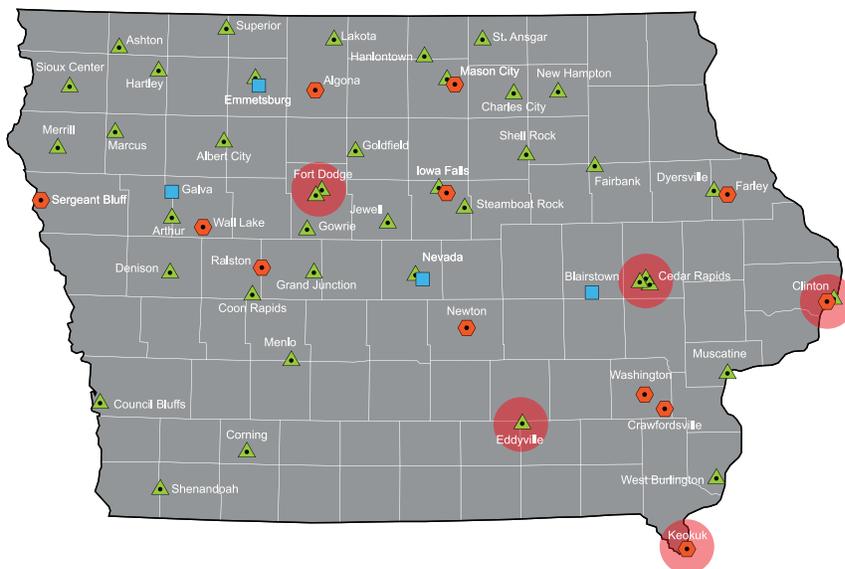


IOWA RANKS

2nd

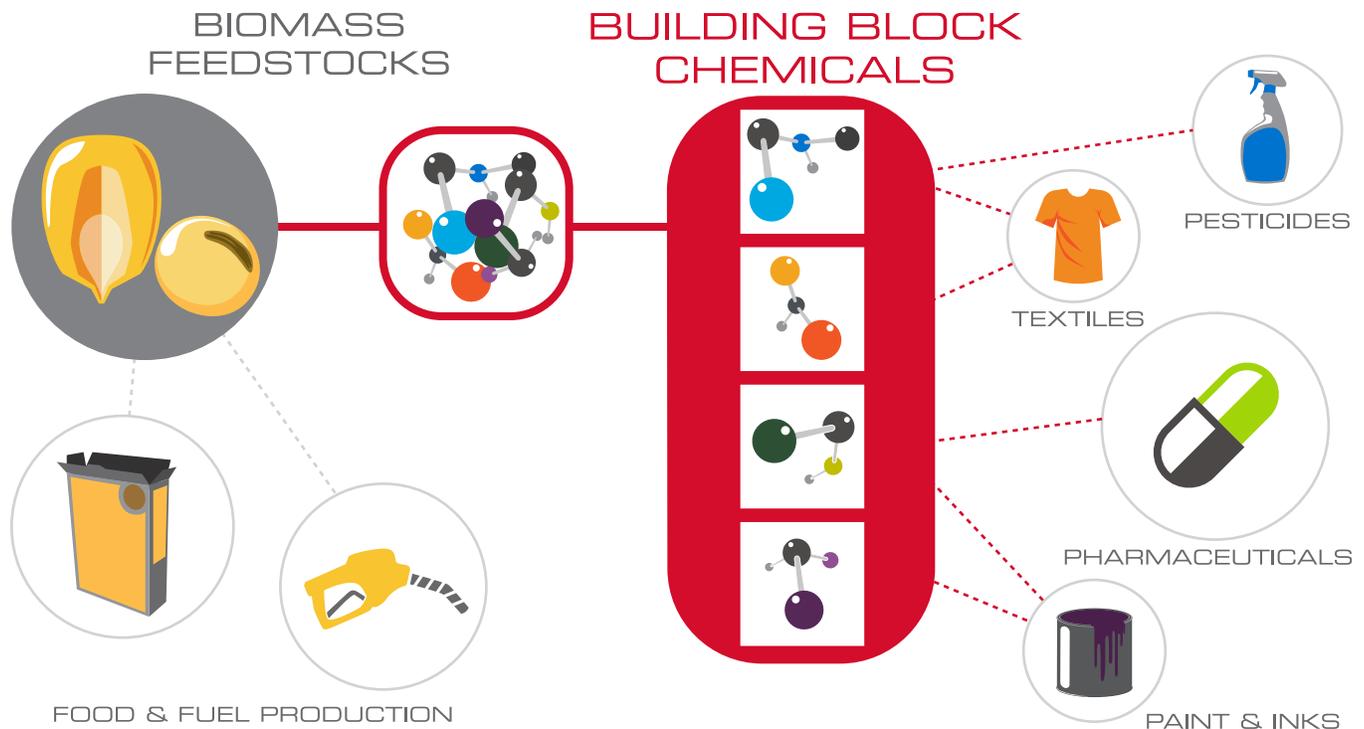
IN BIODIESEL PRODUCTION WITH
12 REFINERIES PRODUCING OVER 16%

OF THE TOTAL U.S. BIODIESEL PRODUCTION



LEGEND

- Biodiesel Facility in Operation
- Ethanol Facility in Operation
- Cellulosic/and Traditional Ethanol Facility
- Industrial Bioprocessing Parks



HOW IT WORKS

Many of the industrial facilities around the state currently producing food and fuel products from corn, soybeans and other renewable products also produce certain co-products that can be further processed into higher value basic chemical compounds. These compounds can in be further processed into end-use consumer products such as plastics, textiles, paints or pharmaceuticals.

The production of such biochemicals is perhaps the fastest growing segment of the bioscience industry and represents one of Iowa's best opportunities for development of a high-density industry cluster such as Silicon Valley.

PROPOSED PROGRAM

Renewable Chemical Production Tax Credit

In 2004, the federal Department of Energy studied the potential for high-value chemicals from biomass feedstocks and identified the 30 chemicals that hold the most market potential. This list of high-value renewable chemicals forms the foundation of the incentive and the backbone of Iowa Economic Development Authority's proposal.

This program aims to Incentivize the production of high-value "building block" chemicals based on weight (\$0.05 per pound produced) with annual limits of \$1 million for start-ups and \$500,000 for established businesses.

OUTCOMES

- Accelerate innovation and create new opportunities for R&D
- Create an even stronger market for co-products generated by Iowa's existing renewable fuels industry
- Support Iowa farmers by providing additional demand for commodities that form the basis of Iowa's biomass feedstocks
- Reduce carbon emissions by creating alternatives to petrochemical products
- Solidify Iowa's leadership position in renewables