



**MICHIGAN  
ADVANCED  
BIOFUELS  
COALITION**

**WANT TO KNOW MORE  
ABOUT BIODIESEL?**

Visit [miadvancedbiofuels.com](http://miadvancedbiofuels.com) or contact  
Michigan Soybean Committee at 989-652-3294  
or [soyinfo@michigansoybean.org](mailto:soyinfo@michigansoybean.org).

Funded by the Michigan Soybean Checkoff

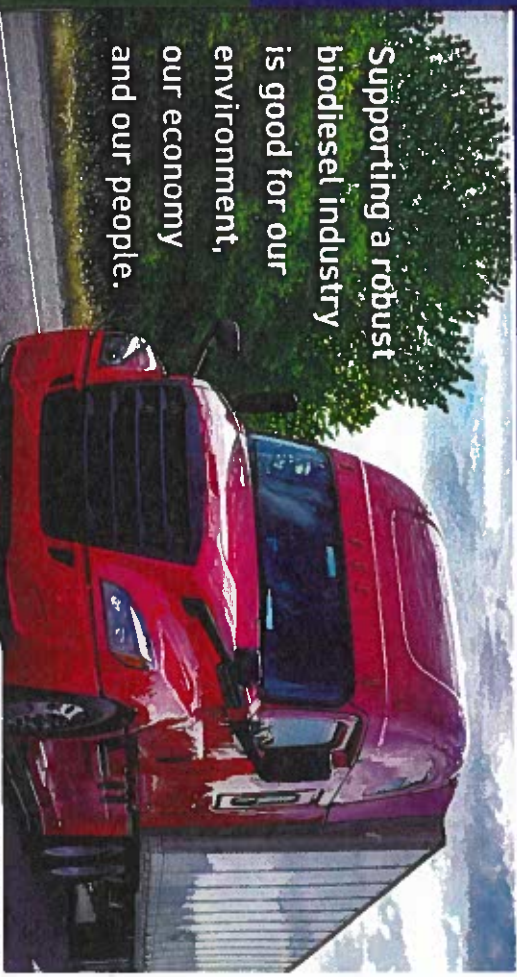


**MICHIGAN  
SOYBEAN  
COMMITTEE**  
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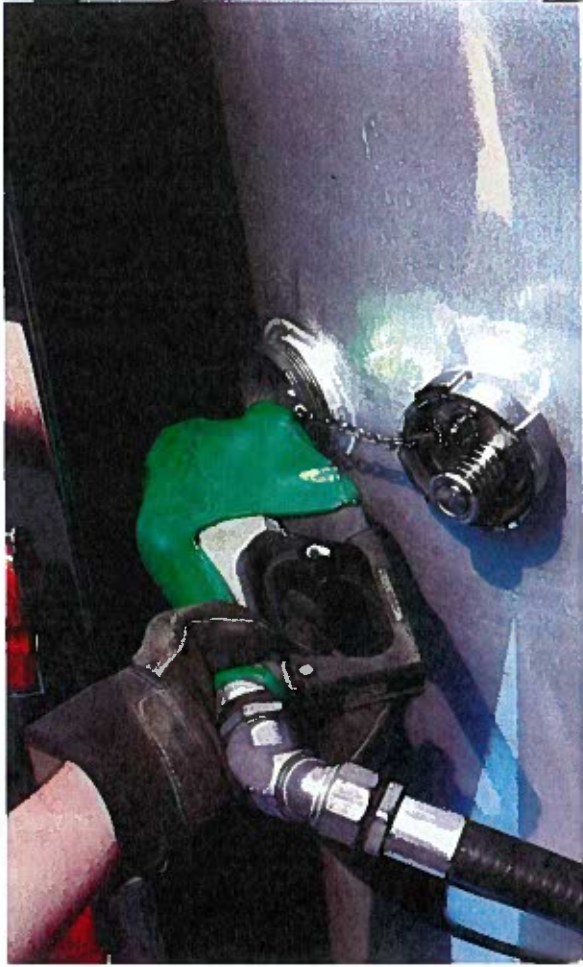
**FUELING TODAY FOR A  
BETTER TOMORROW**

How biodiesel benefits Michigan communities

Supporting a robust  
biodiesel industry  
is good for our  
environment,  
our economy,  
and our people.



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## What is biodiesel?

**Biodiesel is an advanced biofuel** that reduces engine emissions for healthier air and a better environment. It is a drop-in fuel that requires no engine modifications nor new fuel infrastructure for blends up to B20. Fleets have easily and economically reduced their carbon footprint by replacing petroleum-based diesel with cleaner-burning biodiesel for over 30 years.

Communities benefit when transportation, construction, municipal and other fleets fuel with biodiesel.

## Key benefits of biodiesel

### Lower emissions compared to petroleum diesel<sup>1</sup>

- 74% ↓ greenhouse gases
- 67% ↓ hydrocarbons

### Made from renewable sources

- Soybean oil
- Recycled cooking oil
- Other fats and oils

### Safer to handle

- Non-toxic
- Biodegradable
- Higher flashpoint than petroleum diesel

### B20 is a drop-in replacement

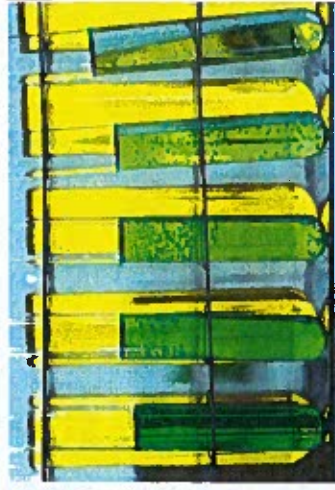
- Approved by major manufacturers
- No engine modifications required
- No additional infrastructure needed

### Better engine performance

- Improved lubricity for less engine wear
- Higher cetane for smoother operation
- Less soot production for reduced wear on diesel particulate filters
- All-weather fuel

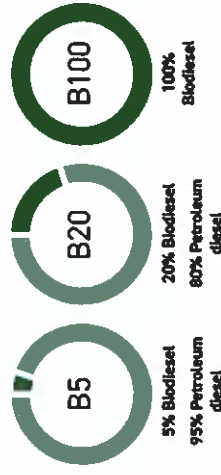
### Supports the U.S. economy<sup>2</sup>

- 1.8 billion gallons produced annually
- 65,000 jobs
- \$17 billion in economic opportunity



## Biodiesel blends explained

Biodiesel is typically blended with petroleum diesel for fueling vehicles and other equipment. B20 is a biodiesel blend widely adopted by fleets throughout the United States. A B20 blend will achieve a 15% carbon reduction today without requiring changes to vehicles or expensive infrastructure. Fuel system modifications allow vehicles to use B100 in cold weather for even greater emission reductions.



<sup>1</sup> U.S. Department of Energy Alternative Fuels Data Center  
<sup>2</sup> Capital Policy Analytics

# BIODIESEL FOR MICHIGAN

How a strong biodiesel industry benefits our state

Many Michigan fleets take advantage of the proven benefits of biodiesel fuel. This renewable alternative to petroleum diesel provides a cleaner environment and adds economic value to our state.

Despite the benefits biodiesel offers, a recent survey of more than 250 retail fuel stations across Michigan showed that only three stations carried biodiesel blends of B5 to B20.<sup>3</sup>

Many Midwestern states offer tax incentives to encourage adoption of higher biodiesel blends at the retail level. Similar programs in Michigan would increase biodiesel availability for diesel operators.



## What biodiesel means for Michigan

### Healthier communities



- Harmful emissions from diesel engines contribute to lung disease and other health issues. Cleaner-burning biodiesel reduces emissions for better air quality
- Switching to B20 would bring \$53 million, while B100 would bring \$267 million in potential annual health benefits to Detroit residents - including less respiratory disease and fewer lost work days.<sup>4</sup>

### Economic growth



- Biodiesel supports Michigan's economy, builds revenue and creates jobs through in-state production, distribution and sales
- Biodiesel adds value to soybeans grown by Michigan farmers

<sup>3</sup> Indigenous Energy, MI retail fuel survey, 2022

<sup>4</sup> Trinity Consultants, Assessment of health benefits from biodiesel as a transportation fuel, 2022.

## Biodiesel's supply chain: The path from farm to fuel

### STEP 1

12,000 Michigan farmers produce soybeans on 2 million acres of farmland.<sup>1</sup> Biodiesel adds value to this crop.



### STEP 2

Michigan soybean processors separate protein and oil from 50 million bushels of soybeans each year, generating 2.35 billion lbs of high protein soy meal and over 70 million gallons of soybean oil for food and biodiesel production.<sup>2</sup>



### STEP 3

Soy protein is fed mostly to livestock. Livestock processors generate waste animal fat

- Some soybean oil goes directly to biodiesel production
- Soybean oil used for frying food gets recycled
- Ethanol industry generates distillers corn oil byproduct



### STEP 4

Michigan biodiesel manufacturers use these feedstocks to produce 16 million gallons of biodiesel annually<sup>3</sup>



### STEP 5

Regional and local fuel marketers blend biodiesel for customer use

- Blended biodiesel fuels trucks, construction equipment, farm tractors and other diesel vehicles



### STEP 6

Michigan residents benefit from cleaner air, a lower carbon footprint and greater local energy security.



<sup>1</sup> 2021 USDA National Agricultural Statistics Service data

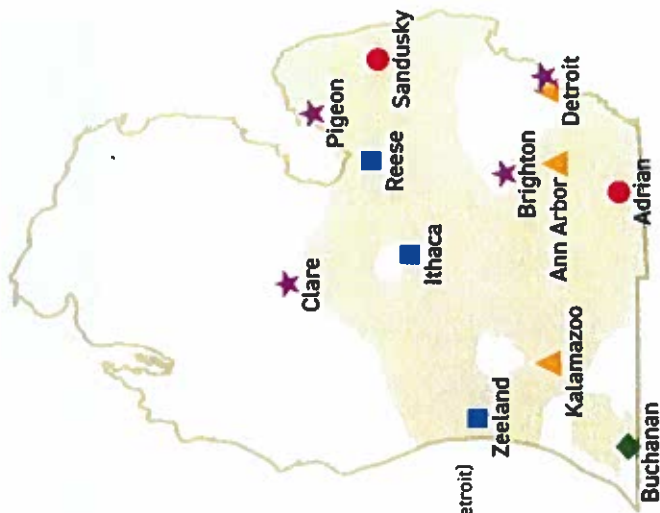
<sup>2</sup> American Soybean Association

<sup>3</sup> US Energy Information Administration

## DIVERSE PARTNERS FUEL MICHIGAN'S GREEN ECONOMY

The biodiesel industry creates jobs, builds revenue and protects our environment by supplying high quality renewable fuel for Midwest fleets. Supporting a robust biodiesel industry is good for our communities, our economy and our people.

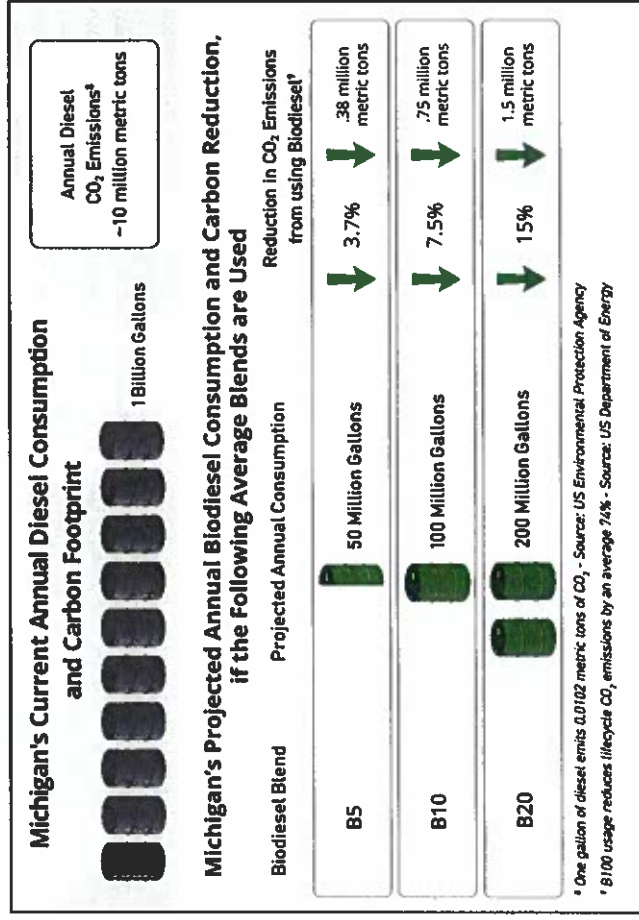
- **Biodiesel manufacturers**
  - Thumb BioEnergy (Sandusky)
  - W2 Fuel (Adrian)
- **Soybean processors**
  - Zeeland Farm Services (Zeeland and Ithaca)
  - Quality Roasting (Reese)
- ◆ **Biodiesel feedstock trader (used cooking oil, etc.)**
  - Third Coast Commodities (Buchanan)
- ★ **Biodiesel marketers and haulers**
  - Altom Transport (Clare and Detroit)
  - Cooperative Elevator Co. (Pigeon)
  - Corrigan Oil (Brighton)
  - Warner Petroleum Corporation (Clare and Detroit)
- ▲ **Example biodiesel users**
  - City of Kalamazoo (B20)
  - University of Michigan (B20)
  - Detroit Salt Company (B99)
- **Top soybean producing areas**



## OPPORTUNITIES FOR MICHIGAN'S FUTURE

Michigan has significant potential to improve the quality of life for its citizens by encouraging greater biodiesel use, whether it's through a biodiesel standard or through incentives to encourage investment in soybean processing or biodiesel production, blending and distribution.

Many Midwestern states offer incentives and other programs to encourage adoption of higher biodiesel blends. These programs correspond to higher biodiesel consumption.



# BIODIESEL STATE INCENTIVES

How Midwestern state policies support biodiesel

Many Midwest states offer incentives to encourage the use of biodiesel fuel, with extra incentives for higher biodiesel blends. States with biodiesel incentives reduce carbon emissions and gain significant environmental, health and economic benefits for residents in both rural and urban areas.




## IOWA

### Iowa Biodiesel Incentives<sup>10</sup>

State excise tax reduction for retailers selling B20-:

- 3 cents/gallon

State income tax credit for retailers selling these blends:

- B11 = 5 cents/gallon
- B20 = 7 cents/gallon
- B30 = 10 cents/gallon

Sales and use tax refund for biodiesel producers:

- 2 cents/gallon, up to 25M gallons per year

### Iowa Biodiesel Successes<sup>13</sup>




## ILLINOIS

### Illinois Biodiesel Incentives<sup>11</sup>

Biodiesel blends receive a 6.25% state sales tax exemption at the following levels:

- B10+ in effect since 2003
- B13+ effective April 1, 2024
- B16+ effective April 1, 2025
- B19+ effective April 1, 2026
- B10 is the minimum threshold set for the winter months from December to March

2022 average value of tax exemption = 20.5 cents/gallon

### Illinois Biodiesel Successes<sup>13</sup>




## MISSOURI

### Missouri Biodiesel Incentives<sup>12</sup>

Sales tax credit for biodiesel retailers:

- B5 to B10 = 2 cents/gallon
- B11+ = 5 cents/gallon

Tax credit for qualifying biodiesel producers:

- 2 cents/gallon

### Missouri Biodiesel Successes<sup>13</sup>



<sup>10</sup> Iowa Code 2022 Section 422.11P Iowa Revenue Dept. Chapter 277

<sup>11</sup> Illinois Senate Bill 1146

<sup>12</sup> Missouri Senate Bill S1160

<sup>13</sup> U.S. Energy Information Administration and LMC International: Economic Impact of Biodiesel on the United States Economy 2022.

## WHAT IS MIABC?

The Michigan Advanced Biofuels Coalition (MIABC) promotes the use of advanced biofuels to help improve the quality of life in Michigan. Using biomass-based diesel fuels – biodiesel, renewable diesel and sustainable aviation fuel – protects our air and environment by reducing carbon and harmful emissions from diesel-powered vehicles, equipment, vessels and aircraft.

Formed by the Michigan Soybean Committee, MIABC provides resources to help Michigan communities and fleets take full advantage of the benefits of using biodiesel, the most commonly available advanced biofuel. Funding for MIABC comes from Michigan farmers through the soybean checkoff program.

### WHO ARE MIABC STAKEHOLDERS?

The Michigan Soybean Committee formed MIABC in cooperation with multiple stakeholders that include:

- Biodiesel manufacturers
- Feedstock producers
- Fuel distributors
- Fleets
- Non-profit organizations

Joining MIABC signals an organization's commitment to improving Michigan communities and achieving lower carbon emissions, cleaner air and a healthier environment.

For a list of MIABC stakeholders, and to consider joining visit [miadvancedbiofuels.com/stakeholders](http://miadvancedbiofuels.com/stakeholders).



## FOUR WAYS MIABC SUPPORTS STAKEHOLDERS



### Education

MIABC communicates to fleets and communities about biodiesel benefits, educates users on fuel quality best practices and provides expert speakers to advance biodiesel understanding.



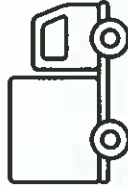
### Technical Expertise

Fuel experts available through MIABC can answer questions, help source quality fuels, guide transition to biodiesel, and quantify biodiesel health and environmental benefits.



### Networking

Stakeholders share biodiesel successes and best practices through events, presentations and conferences. MIABC also connects fleets to grant opportunities to fund biodiesel-related projects.



### Promotion

Through its website, promotional materials and outreach activities, MIABC recognizes Michigan fleets using biodiesel and motivates others to adopt advanced biofuels.

