



# **CRC LEGISLATIVE ACT — CDESA**

## **Crop Diversity & Energy Sovereignty Act**



Three CRC initiatives to power Iowa's new energy economy:

- ★ Leading the next energy crop boom
- ★ Opening new markets for Iowa farmers
- ★ Turning farm runoff into clean-burning fuel
- ★ Building border refineries for energy independence



# CDESA Initiative

## MycoFuel Engineers™

Turning Farm Runoff into Clean Water and Energy



### PROBLEM

Polluted farm runoff enters Iowa waterways



### SOLUTION

Mycelium (fungal networks) break down pollutants



### OUTCOME

Clean water and renewable fuel are produced

### 1.) Runoff is Captured

Nutrient pollution is intercepted before reaching rivers and streams.

### 2.) Fungal Systems Filter Water

Mycelium (fungal networks) breaks down pollutants naturally.

### 3.) Clean Water Returns to Ecosystem

Waterways are protected without fines or mandates.

### 4.) Biomass Is Harvested

Fungal growth is collected and processed into fuel.





### 5.) Energy is Produced

Fuel pellets create clean energy and new rural revenue.

# Turning Pollution into Production

## A New Model for Iowa's Environmental Infrastructure



-  Cleans water without raising taxes
-  Creates worker-owned rural jobs
-  Works with farmers — not against them
-  Turns waste into marketable energy

Instead of spending taxpayer dollars to clean pollution after the fact, Iowa builds infrastructure that captures runoff, restores water, and produces clean-burning fuel.

## **The two other CDESA initiatives:**

### **SolarBerry Brigade™ (a plan to help farmers tap into new energy markets)**

Researchers at Wake Forest University discovered that pokeweed berry dye can be used in solar panel technology. Other researchers and manufacturers have developed hemp-based energy storage systems that may outperform traditional lithium batteries in areas such as charging speed, sustainability, and production cost.<sup>1</sup> Instead of treating agriculture and energy as separate industries, SolarBerry Brigade™ explores how Iowa farmers could help grow the raw materials used in the next generation of solar panels, batteries, and renewable technologies.

SolarBerry Brigade™ brings together Iowa farmers, engineers, universities, and manufacturers to explore these emerging technologies through research partnerships, pilot programs, and local manufacturing initiatives. Rather than waiting for other states or foreign corporations to dominate the next energy economy, Iowa can begin positioning itself at the forefront of agricultural energy innovation. The goal is simple: create new markets for farmers, support high-paying skilled jobs, and make Iowa a producer of renewable energy technology—not just a consumer of it.

### **Union Energy Works™ (A real plan to stop eminent domain abuse)**

For years, pipeline companies have used eminent domain to push pipelines diagonally across Iowa—typically from the northwest toward the southeast—treating our state like a corridor for oil headed somewhere else. Politicians promise to “fight eminent domain abuse,” but slogans alone do not stop pipelines in court. Union Energy Works™ is designed to give Iowa real leverage by cutting the pipelines off at the pass.

Instead of allowing oil to simply pass through Iowa on its way to Gulf Coast refineries, Union Energy Works™ explores developing regional refining and processing infrastructure here in the Midwest—particularly in western Iowa near where many pipelines enter the state.<sup>1</sup> If oil is moving through Iowa anyway, Iowa should capture the jobs, industry, and economic value instead of just the risk. By processing energy closer to where it travels, Iowa could create high-paying industrial jobs, strengthen its economy, and reduce dependence on refinery infrastructure along the Gulf Coast that has repeatedly been disrupted by hurricanes and extreme weather.<sup>2</sup>

Union Energy Works™ also recognizes a basic reality: transitioning to cleaner energy will take time. Iowa should continue investing aggressively in renewable technologies and energy innovation, but we should not allow our farmland to be bulldozed by outside interests while other states capture the economic benefits. The goal is simple: give Iowa real bargaining power, protect Iowa landowners, and make sure Iowa has a seat at the table when it comes to America’s energy future.

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<sup>1</sup> David W. Carroll et al., “Pokeberry-Based Dye Sensitized Solar Cells,” Wake Forest University; and various studies on hemp-derived carbon supercapacitors and hemp-based energy storage materials, including research summarized in “Hemp Batteries: An Alternative to Graphene and Lithium,” Signature Products, accessed May 14, 2026, [Signature Products Hemp Battery Article](#).

