

## The Spring Workshop is upon us!

The Spring Workshop is scheduled for Saturday April 29th 9:00AM to 5:00PM and Sunday April 30th 9:00AM to 4:00PM. We are hoping for a record turn out for this event as always. Space is limited so reserve your spot now! Contact Steve Fugate at 319-683-2892 or check the website at: [www.ybdc.org](http://www.ybdc.org) for more information.

At right: The morning view as seen by overnight campers at the workshop. Below: Titration testing at the Midsummer workshop 2005.



### The grease must flow

Not unlike the rare spice mélange found only on the dessert planet in the epic novel Dune by Frank Herbert, The used fryer oil we collect for our process of brewing biodiesel is critical to our very survival. “He who controls the grease controls the universe”. We collect year around and the stuff turns solid in the cold weather, as one would imagine this makes collection in winter weather most difficult whereas in warmer temperatures this process becomes far more manageable. Pumping out 55 gallon drums of oil is easier than moving the drums full of solid or semi solid oil with a hand truck. The good news is that as the weather grows warmer we can use pumps to remove the oil from the collectors this is a much less painful

process to say the least. Plans are currently in the works for a new tanker trailer complete with pumps, hoses, tools and a spill kit. Boo Ya!

### Growing Pains

With the new spring come new goals and fresh ideas/energy for the season. Steve mentioned a 10,000 gallon goal and added that nearly 45 restaurants would be needed to achieve that goal give or take the really big accounts like UIHC or ICCSD (which come complete with their own special logistics). With these increases in volume come higher frequency collections and greater organizational demands on the coop members doing the collection, production and distribution of materials. Now more than ever members need to be involved and creative, we need to establish a friendly face in our community. And not least important members need to be prepared for growth within the coop. This year will be a bench mark for biodiesel in Iowa and throughout the country. We have been on the forefront of this monumental

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effort in our state and look forward to being there for years to come. As the coop matures from its infant stages and begins to crawl out into the light and public scrutiny we will no doubt experience more pains, and growth. Ouch! Hang on tight! We have another tooth coming in.

## **YBDC legislative trip**

Until last week there would have been little to report other than what could be gleaned from the news papers or National Public Radio. In that it is YBDCs mission to advocate for change, the offer by Rich Dana to come to the capitol to speak for the “little guy” seemed like a great way to make a difference. The RED tape involved with trying to pay ones road use taxes definitely needs to be changed. It was a bright, sunny and warm day for the first annual YBDC day at the capitol. Eric Foresman and I were shown the ropes by YBDC member Rich Dana. Rich is a full time lobbyist for the Iowa Farmers Union and was not only a gracious and patient host, but is a tireless supporter of alternative energy in general. This was my first visit to the capitol and I was taken aback by its beauty and grandeur. I was surprised to find out that ordinary citizens can walk in and request to speak with their representative! Rich informs me those constituents calls are usually answered ahead of lobbyists. I was not able to get in touch of my representatives; they were in committee and had left the building by early afternoon. Eric’s rep from North Liberty Senator Dvorsky spoke with us at length about several issues and was very knowledgeable about renewable energy

in general as well as very supportive of our efforts. We also spoke with the president of the Iowa Farmers Union about our projects and he was very enthusiastic as well as a real nice feller. I was introduced to Patricia Higby who is the Energy Educator at the Center for Energy and Environmental Education at the University of Northern Iowa. She was really excited about what we are doing and would like to use YBDC as a resource for their programs! I ran into Ed Woolsey, a renewable energy lobbyist who I met at a forum last summer. He is a RE nut and involved in many projects and seems to know everyone. His big question was “what do you do with the Glycerin”. I explained that we were using it as fertilizer and that it could also be used as a supplement to ruminants. He was most interested and requested further information that has since been forwarded to him. I also managed to snag a moment of Monte Shaw’s time. Monte is the Executive Director of the Iowa Renewable Fuels Association and apparently wields some clout. I was surprised how friendly he was and his level of interest in our plight as small scale producers. I gave him copies of our workshop flyer as well as Tuesdays Library presentation and chatted for quite a while He vowed to visit our facility and requested more information on several topics. Everyone I talked to got a biz card and copies of our sad flyers. Joe Bolcom took the time to eat lunch with us and was charged with great ideas and valuable insight as to how to get SB 401, the 300 gallon per year exemption for home brewers. He thought that was the best that could be accomplished this year. While I was

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waiting to speak to Rep. Greiner I ran into Monte again and talked quite a bit again! He was kind enough to give me some pointers on how and when to catch the legislators between committee meetings, Too nice! Overall it was an exhilarating and very rewarding day. I encourage all friends of biodiesel to get more politically active.

By Steve Fugate YBDC President

## **YBDC seeks to establish the viability of a micro-nodal production model**

By determining the operational parameters of small scale production of ASTM quality fuel, we can better assess the feasibility of on farm biofuel production. We are committed to the concept of recycling local used fryer oil into very clean burning fuel that can be used for everything from school busses to home furnaces. Knowing that Iowa imports 98% of its energy, we are determined to begin correcting this imbalance in an ecologically correct fashion. Through projects such as a living 3 pond waste water treatment system to Methanol recovery and proper glycerin recycling we demonstrate the possibility of low impact energy production. Our current farm based research and development facility will demonstrate a vertical integration of renewable technologies. Solar Hydronic heating, Photovoltaic electricity generation as well as wind power will provide a comprehensive, interactive teaching tool that may even provide opportunities for eco-tourism. Renewable biofuels turns Iowa's prolific fields into horizon to horizon energy

collectors. It behooves us to figure out how to more fully utilize the resources at hand. YBDC is committed to education and outreach to achieve these goals and believes forming as a not for profit 501(c)(3) corporation will best suit our needs.

By furthering local biofuel implementation expertise, we hope to generate sufficient usage volume outside of traditional supply lines so as to establish some degree of energy independence. We believe that local energy independence must be viewed as a safety and security issue. In the event of an extended catastrophe, the ability to produce fuel to keep emergency vehicles running can not be a bad thing.

By partnering with the local environmental advocacy groups such as the Iowa Renewable Energy Association, Environmental Advocates, the Iowa Farmers Union as well as institutions such as University of Iowa and Mercy Hospital, we hope to provide a focal point for renewable fuels interest to coalesce. We seek to facilitate synergies between these groups as well as the private and business sectors. The university represents a huge brain trust that provides both knowledge and enthusiasm. We find business owners happy to be able to reduce waste disposal costs while at the same time actually contributing to local energy production. If you agree with this mission, we encourage you to join our efforts to bring about positive change in these troubling times.

By Steve Fugate YBDC President

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## Yoderville Biodiesel Cooperative Member Structure



The original processor at YBDC August 2004

Yoderville Biodiesel Cooperative is formed to stimulate knowledge and usage of locally produced renewable biofuel. Its mission will be to engage in the dissemination of biodiesel information and to promote its ease of use and production. YBDC will be a Not for profit 501(c)(3) corporation. YBDC will be overseen by a Board of Directors. This board will consist of at least  $\frac{3}{4}$  working members and will be elected by the membership. The Board of Directors will set the direction of the cooperative and provide guidance towards the execution of the YBDC mission.

### Membership

**Friend of Biodiesel**      \$25 per year, discount to events.

**Small Membership**      \$100 per year or until 100 gallons is used, 30 gallons per month.

**Large Membership**      \$200 per year, up to 60 gallons per month.

**Corporate Sponsor**      \$200 per year, mention in promotional materials, discounts to events.

**Lifetime Member**      \$1500 one time, 70 gallons per month.

**Sustaining Member**      \$500 one time, admiration and negotiable discounts.

All memberships receive 1 free t-shirt per paid year. Each member is responsible for acquiring about as much quality used fryer oil as they might consume. This should be coordinated through the Collection Master for maximum efficiency and account satisfaction. All members are encouraged to open at least 2 new grease collection accounts. The cost for acquiring oil should be considered \$.50 per gallon. Opening a new account should receive a 10 gallon fuel credit. Members speaking at events should receive a 10 gallon fuel credit. The YBDC should cover the Biodiesel required to conduct its business (outreach and collection of grease or items). A Working Member discount will be offered to those contributing at least 15 hours per month. A Grease Collector discount will also be offered to those using their vehicle for significant collection activities. Eligibility for these discounts will be determined by the membership director. Base fuel cost will be \$2.00 per gallon. Minimum cost \$1.00 per gallon.

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Girl Mark peeking into frame right with the completed processor at YBDC Oct 2004

## Member Dan Bell on Location

I attended the Central Iowa Energy meeting in the Amanas last Thursday. I got a free sample! The equity drive had ended, as they had raised the \$20million required in 10 days. There were 5 reps, all with other regular jobs, two of them farmers. I asked a few questions:

DB: Where do you get your oil?

CIE: Where ever it is cheapest; Iowa, Brazil, wherever. We will sell it anywhere for the highest price.

DB: How sensitive is your price? In other words, how much do you pay for oil, and how expensive would it have to be before you are no longer profitable?

CIE: We pay \$.22/lb. (I didn't get a clear answer on part two, it's a complicated question, but 'considerably higher' was indicated).

DB: Is this a West Central Soy project?

CIE: Yes

DB: Why is the investment minimum \$25,000?

CIE: Fewer investors mean less organizational overhead. SEC rules. Open to Iowa residents only (Kum-n-Go is a big investor).

DB: Opening a crushing facility?

CIE: No

DB: What do you do with the grain meal?

CIE: Sell it. It's a nice market.

DB: Where does your skilled labor come from?

CIE: Training up in Ralston IA with

REG: <http://www.renewable-energy-group.com/> The Wall Lake facility is 300 million gal per year and entirely sold to the Port of LA and the Puget Sound ferry industry.

DB: Using GMO beans?

CIE: (unclear answer, they seemed to indicate a preference for high-oil yielding "All but GMO" beans). They can process any kind of oil, --including animal oils-- (strong emphasis on this, something about contracts from rendering plants)

DB: (Question about quality of fuel)

CIE: Meets BQ9000 standards, above normal ASTM rating.

DB: Describe your process

CIE: Inline process can be adjusted for reaction needs depending on stock. 4 stage, mostly gravity-driven, very low energy consumption. 1-Degumming, using filters and strippers 2-Reaction 3-Separation 4-Finishing Glycerin nice and clean, sold off to somewhere. \$1/gallon blender's credit

DB: Where did you get your financing?

CIE: F&M Bank (Farmers and Merchants?), Agstar (from Minnesota) Started June05, formed a board, raised a couple million. 1.7 million to Crown Ironworks for lots of Cool Heavy Stuff. Will break ground in March

I sat with John Van Zee, a CIE board member and banker with US Bank. We talked about how cool Mercedes are. He wants to buy one from Kent. He also

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told me there will be another equity drive in March for the plant going in down in Washington.

By Dan Bell YBDC Member

## YBDC wants to hear from you!

We welcome questions and feedback from people in the community; this helps us determine our impact. Please feel free to contact us via our website at: [www.ybdc.org](http://www.ybdc.org) and click on the contact link. Or email [steve@ybdc.org](mailto:steve@ybdc.org) your input will be carefully considered.



Seen frame left above: YBDC's collection vehicle we hope to repair (maybe in the next year or two).

## YBDC needs

This is a list of things we need, we will publish this list in each newsletter, this way people who want to help us can see where to jump in. If you have any of the following items and don't need/use them please feel free to donate them to us:

Money! Steel or plastic barrels, Ag totes or large tanks, Pumps of any kind, Fire extinguishers, Lab items, Near Infra-Red Spectrography equipment, Paper towels, Rags, Sawdust, Labor, Lab skills, Trash disposal, Accounting help, Secretarial skills, Grant writers, Legal assistance, Pickup truck with Tommy Lift, Sturdy trailers, Diesel generators, Construction

materials, Diesel tractor, Bat houses, Gifts in kind of any sort, Love.

## Grease Contributing Establishments

The Pit  
Red Lobster  
Rick's



February 2006 featured contributor Hamburg Inn #2

Hamburg Inn #2  
Shakespeare's  
The Edge  
Lou Henri  
The Cove  
Chili's  
The University of Iowa  
Mercy Hospital  
Jonesey's  
The Oasis  
Slims

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