



Lawrence Breakfast Optimist Newsletter

For Tuesday, September 22, 2009

ANNOUNCEMENTS

Sergeant at Arms-

There's a new sheriff in town, or rather a Sergeant at Arms. Tom DeGarmo has been appointed the new LBO Sergeant at Arms. Tom will make sure members are wearing their name badges and optimist pins. Tom has several other things planned but will announce those at other meetings.

LBO Paint In

The paint in will take place Saturday, October 24th. The paint in will begin at The Gap and the Antique Mall. Just in case you were wondering, the paint in will be finished before the Oklahoma game! If you are interested in helping contact Jim Rumsey.

Board Meeting-

The LBO Board Meeting Thursday, September 24th 6:30am at Perkins.

Breakfast Seating Arrangement-

LBO is trying out different seating arrangements for breakfast. If you have a suggestion or an opinion about the seating arrangement, contact Dudley Crow.

THE PROGRAM

Today's program was provided by Dr. Jack Ford with the Center for Environmentally Beneficial Catalysis (CEBC) at the University of Kansas. The CEBC is a multidisciplinary research center headquartered at the University of Kansas in Lawrence, Kansas. The goal is to "develop environmentally beneficial processes that are stable and economically viable at the desired production scales." Dr. Ford discussed biomass, 1st generation biofuels and emerging biofuels.

The types and sources of biomass include; sugars such as sugar cane and corn, oils- soybeans, rapeseed, algae, and lignocelluloses- trees and grasses. Availability of biomass resources differ greatly through out the United States.

Dr. Ford talked to the club about a common biofuel, ethanol. Ethanol is made by fermenting sugars usually from corn or cane. The advantages of using ethanol include it is renewable, it works well if you have a cheap source of easily accessible sugars, it has lots of well-known organisms and enzymes available for conversion and it has a long history dating back to the Model T. Ethanol's sustainability depends on it's source. Sugar cane is great in Brazil but most countries can't grow it in bulk and deforestation is becoming a larger issue. Using corn competes with the food supply, costs more energy than it produces and has 35% less energy per volume than gasoline.

Biodiesel is made from oils extracted from soybeans in the United States and oilseeds in Europe. The advantages of biodiesel fuels are that they renewable, they are great if you have an easily extractable oil source, has similar properties to petroleum diesel and they are compatible with all diesel engines. The sustainability of biodiesel depends on its source. In summary Dr. Ford explained that 1st generation fuels are in direct and indirect competition with



other food sources. Other issues include process inefficiencies due to the net energy and worthless by products.

Another interesting portion that Dr. Ford shared with the group was emerging biofuels. Two types of emerging biofuels that he shared with us were lignocellulosic biofuels and algae biodiesel.

Lignocellulosic biofuels sources include trees and grasses. Lignocellulosic biofuels have an advantage because can come from non-arable land and uses agricultural and forestry waste products. The disadvantages are it is difficult to make ethanol due to chemical complexity, conversion processes require lots of energy, no infrastructure for transporting raw materials and it can rob the land of nutrients.

Algae biodiesel advantages include an ability to use waste CO2 from other industries, it grows vertically (which uses little space) and you can use non-arable land. The limitations include harvesting can be difficult, extraction is difficult and it needs robust strains to survive.

Dr. Ford shared that in conclusion current biofuels are renewable but not sustainable and there is lots of promise but technological advances are needed. Currently, there is still not enough biofuels to completely displace petroleum in transportation fuels, however the biofuels can reduce petroleum use until we find something better.

★
★ **Only a few days left....** ★
★ to sign up for the ★
★ **The Annual Banquet,** ★
★ **Meeting and Officer Installation** ★
★ Friday, October 2nd @ Maceli's ★
★ (1031 N.H.) ★
★ 6:30-7:00pm Social Half Hour ★
★ 7:00-8:00pm Meal ★
★ 8:00-9:00pm Officer Installation ★
★ \$27.50 per person ★
★ Contact Dan Heptig by Friday!!! ★

GUESTS

LBO welcomed the following guests.

**Jennifer Smith (Fred)
Shade Little (Dudley)**

And the Winner is.....
**Handshake- Ken Campbell
Basket- Tom DeGarmo**

WELCOME
NEW FRIENDS OF OPTIMIST MEMBERS
Jamie Killscrow and Rich Hand

Next week's program:

**Jeremy Warren
Juvenile Intake and Assessment Program Supervisor
The Shelter, Inc.**

If there is something you would like to see added to the newsletter or have suggestions please contact Erika Zimmerman at ezimmerman@sunflower.com or (785) 423-1864.