

DEVELOPING A SUCCESSFUL COMMUNITY GREASE COLLECTION PROGRAM

Southeast Diesel Collaborative/Biodiesel Workshop

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WHO WE ARE



- The Biofuels Racing Alliance (“BFRA”) is an alternative fuels racing organization that showcases the power and performance capabilities of automobiles, trucks, and motorcycles that utilize renewable energy sources.

www.biofuelsracing.com

EDUCATION, EDUCATION, EDUCATION

- Educate the public in general about the negative environmental, health, and economic impacts resulting from improper or unnecessary disposal of used cooking oil.
- Educate business leagues, churches, and other community organizations about the proper way to request, collect, and handle used cooking oil.
- Educate city officials in local government (i.e., mayor, city manager, city counsel, etc) about the cost avoidances, energy security, and cost benefits of used cooking oil collection and recycling.

ENERGY SECURITY

- Over the past several years, the cost for the consumption of petroleum based fuels has become the highest in U.S. history. The ongoing variables and the rising costs to consumers and municipalities have contributed their fair share to the negative impacts on the U.S. economy.



WORLD ENERGY DEMANDS

- In fact, China, whose population is nearly four times (4x) the population of the U.S. and India whose population exceeds three times (3x) the population of the U.S. are weighing in and will have even greater energy demands as their economies continue to grow.



U.S. HISTORY OF GALVANIZING THE PUBLIC INTO ACTION

The poster is divided into four quadrants by a red cross. The top-left quadrant shows a frying pan on a stove with the text "Save waste fats and greases". The top-right quadrant shows a pan being poured into a can with the text "Strain into clean can". The bottom-left quadrant shows a can in a dark cabinet with the text "Keep in cool dark place". The bottom-right quadrant shows a woman in a black dress handing a can to a man in a white coat with the text "Sell it to your meat dealer". At the bottom, a red banner contains the text "SAVE WASTE FATS".

Save waste fats and greases

Strain into clean can

Keep in cool dark place

Sell it to your meat dealer

SAVE WASTE FATS

The illustration shows a woman in a uniform and a child in a "VICTORY LENSES" shirt handing a can to a man in a white coat. A sign on the counter reads "FATS AND GREASES COLLECTED HERE". In the background, another woman is visible and a sign says "SAVE FATS".

Pass the Ammunition!


The fats and greases you save in your kitchen are *ammunition* when they reach the fighting front. Salvage every speck and turn it in to your neighborhood collecting center. Every drop of fat and grease is an important contribution to the war effort.

The HARRINGTON ELECTRIC Company

SAVE ALL FATS and GREASES

U.S. HISTORY OF GALVANIZING THE PUBLIC INTO ACTION

For Gunpowder



SAVE WASTE FATS

Rush Them to Your Meat Dealer

Vital War Materials from *Salvaged*
KITCHEN WASTE



BONES AND MEAT TRIMMINGS
All unusable portions, fat or lean

COOKED GREASE
When no longer usable for cooking purposes

TRAP GREASE
Skim from grease trap lightly. Let stand for six hours, then skim again

EDIBLE GARBAGE
Eggshells, kitchen and table waste, except inedible waste

INEDIBLE WASTE
Trash, coffee and tea grounds, banana and citrus peels, fish heads and scales



*Keep 'Em Separate
Keep 'Em Clean*

SAVE

ONE BODY...ONE PLANET

(a tale of two arteries)

- There is a direct correlation when describing certain diseases that affect the human body and problems faced by our aging water and sewer systems. Water and sewer maintenance is very costly and affects taxpayers directly. Fats, oils, and grease (F.O.G.) when improperly disposed of down drains and toilets, clogs the arteries of the water and sewer system (top) the same way that they cause clogs in the arteries of the human body (bottom).



USED COOKING OIL AND RECYCLING PROGRAM

- This same used cooking oil can be collected and recycled and used to produce the renewable fuel known as biodiesel. Biodiesel may soon become an “advanced biofuel” when manufactured from recycled restaurant greases and works in any unmodified diesel engine. According to the U.S. Department of Energy, biodiesel is safe and biodegradable and its use significantly reduces greenhouse gases emissions and serious toxic air pollutants.



BIODIESEL PRODUCTION IN HOOVER, ALABAMA

- On Thursday, August 27, 2009, BFRA, along with representatives from the South Fulton Chamber of Commerce, the Atlanta Metropolitan Black Chamber of Commerce, Keep South Fulton Beautiful, among others, and representatives from the City of East Point and Roswell, Georgia visited the Fleet Management Department for the City of Hoover, Alabama where the City of Hoover utilizes recycled cooking oil as a feedstock for biodiesel production utilized in City fleet vehicles.



DEVELOP AN AWARENESS CAMPAIGN

- Work in collaboratives.
- (If you are a municipality) make residents aware through normal water bill statements, expanding to notices and advertisements in conjunction with local government access channels and media partners. Disseminate notices and flyers to residents through special events. Allow volunteers (with local government approval) to place door-hanger notices on the door handles of houses and units in apartment complexes (with property management consent in all instances) with detailed information about proper disposal habits in multiple languages (where applicable) in order to direct residents to participate in the collection process.
- Develop strategic alliances among local environmental groups like Keep America Beautiful, local recycling coalitions, neighborhood associations, etc.
- Develop a series of public service announcements and conduct interviews on local radio and television stations along with announcements in local newspapers and publications to further impact residents and direct residents to participate in the collections process.
- Seek out recording artists that are producing music that speaks to the cause for outdoor festivals and special events.

DEVELOP COLLECTION MEASURES

- Work in collaboratives.
- Cooking oils can be collected from apartment complexes, private residences and churches, new businesses and restaurants, drop-off points and recycling centers, and through special events like festivals, parades (involving schools, environmental groups, and civic organizations)
- * Cooking oils can also be collected during regularly-scheduled “door-to-door” routes or through the normal garbage collection agency in the particular area of the county or through a “grassroots” style collection process. Special days for grease pick-up can be established along with the distribution of funnels and/or requisite one (1) gallon containers (where necessary). The containers can then be collected on special days during special collection routes of “staffed” collection trucks.
- The placement of a network of larger containers for used household cooking oil deposits at apartment complexes, new “green” sub-divisions, and multi-family dwellings can be arranged as well as drop-off/intake locations at fire departments.
- Transfer stations to intake the used cooking oil can also be designated at or near existing landfills within the normal routes of garbage trucks in the area.

INCENTIVIZE YOUR COLLECTIONS PROGRAM

- Work in collaboratives.
- Media coverage and special public awards, recognitions, and incentives for businesses, residents, and neighborhood associations can be arranged in order to galvanize residents to actively participate in the collections effort.
- Special collection campaigns can be coordinated where residents can be accorded incentives to bring used household cooking oils to designated “drop-off” locations in the participating municipality (i.e., such as an annual city rebate on a resident’s water and sewer bill).

SUCCESS STORIES

- The cities listed below (and others) have established a form of used cooking oil awareness, collection, and recycling program and have derived a multiplicity of benefits and returns on their investments:
- Jacksonville, Florida
- Hoover, Alabama
- Gadsen, Alabama
- Florence, Alabama
- Montgomery, Alabama
- Daphne, Alabama
- Key West, Florida
- St. John, Florida
- San Francisco, California

BIODIESEL FUELS IN GHANA

- Earlier this year in Agogo, Ghana, students and staff from the Youth Institute of Science and Technology along with support from HELP.org, Dumpong Biofuels, HABESHA, Inc and BFRA constructed a small-scale biodiesel processor with locally-sourced materials.



BIODIESEL FUELS IN GHANA (CONT'D)



BIODIESEL FUELS IN GHANA (CONT'D)



BIODIESEL FUELS IN GHANA (CONT'D)



BENEFITS OF USED COOKING OIL AWARENESS, COLLECTION AND RECYCLING

- **Cost Avoidance:** Redirecting used cooking oil into biodiesel production reduces the amount of F.O.G. improperly disposed of and reduces the overall costs associated with water and sewer maintenance. San Francisco, CA spends over 3.5 million dollars last year to unclog sewer pipes. (www.sfgreasecycle.org)
- **Cost Avoidance:** The used cooking oil collected from the public can be utilized to produce biodiesel in many instances for less than \$1.50/gallon and passes on a cost savings to the municipality/producer
- **Landfill Capacity:** In areas of the country where landfill capacity is an issue, redirecting used cooking collected from the public, which normally unnecessarily disposed in landfills, conserves valuable landfill space.
- **Energy Security:** A biodiesel production facility can provide insulation against variable fuel costs and can act as an alternate fuel supply in the event of a natural disaster or national emergency.

BENEFITS OF USED COOKING OIL AWARENESS, COLLECTION AND RECYCLING (CONT'D)

- **Water Quality:** Redirecting used cooking oil collected from the public into biodiesel production reduces the amount of grease improperly poured down sinks and drains and reduces the number of sanitary sewer overflows.
- **Air Quality:** The biodiesel derived from used cooking oil burns cleaner than petroleum diesel and reduces the amount of greenhouse gas emissions and serious toxic air pollutants.
- **Health Benefits:** Working with biodiesel is safer when compared with petroleum diesel, because biodiesel is nontoxic, biodegradable and less flammable.
- **Green Jobs Creation:** Establishing a used cooking oil “awareness, collection, and recycling program” for the production of biodiesel creates the need for workers and requires some job training.

7.3L DIESEL ENGINE MUSTANG POWERED BY 100% BIODIESEL FROM USED COOKING OIL



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