



## Grease Collection In the US: Feedstock for Biodiesel

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### Grease Collection Overview

When we talk about grease, what do we mean? Grease can refer to yellow grease, choice white grease, edible or inedible tallow, lard, trap grease (also known as brown grease), poultry fat, and hydrogenated vegetable oil. Those in the industry generally refer to this category as Fats, Oils, and Greases (FOGs). For the purpose of this overview, grease is recycled spent cooking oil (also known as “yellow grease”).

Restaurants create millions of gallons of yellow grease per year. 249,243,160 gallons in the US to be [exact](#). If not collected properly at restaurants, the grease can be a burden on waste water infrastructure and water treatment facilities.

There are two main types of entities that step in to fill this problem: haulers/collectors and renderers. The haulers/collectors are the companies that contract with restaurants to collect their spent cooking oil. These haulers/collectors then sell the oil to renderers who process it in order to be able to sell it to end use markets. Renderers may also have their own collection business. Haulers/collectors may also sell the oil directly to biodiesel plants.

### Size and Nature of the Market

In 2014, the United States grease collection business had an estimated [\\$2 billion annual revenue](#). The average yearly growth from 2009-2014 is [9.1%](#). The industry is expected to continue its growth at an annualized rate of [5.6%](#) until 2019.

Not a lot of data exists on the grease collection industry; one possible reason is the highly competitive nature of the business. A fascinating personal account of this trend is recorded in this 2013 New Yorker [article](#) which includes FBI agents, surveillance cameras, sting operations, and lawsuits.

Due to the competition, many haulers provide locked containers (pictured below) to deter theft. This does not vanquish it entirely, however. Dar Pro (mentioned in the 2013 New Yorker article) says it loses millions of dollars to thefts each year.



*Photo: Consolidated Fabricators Corp.*

There are no known federal regulations on the grease collection industry, but many states, counties, and other local authorities regulate the industry. One example is Georgia which passed a law in 2004 requiring grease collectors to register with the Georgia Environmental Protection Division or the local governing authority. The [law](#) also requires that the grease collectors' trucks be inspected and permitted annually by the same authority.

### **How Grease Collection Works**

Restaurants use oil (usually a type of vegetable oil) in fryers or other cooking applications. One [study](#) in South Carolina found that the average restaurant uses about 44 gallons per week.

Once the oil is spent, the restaurant empties it into a collection container (generally provided by the contracted hauler/collector or renderer) which is placed outside in an accessible area. The restaurant then replaces the spent oil with fresh oil in the fryer. The contracted collection company will come by (at some pre-determined interval) to empty the spent grease container.

Oil is usually pumped out using a vacuum truck (pictured below). At the end of the month, the grease collection company will do one of three things (depending on market conditions and location):

1. Be paid by the restaurant for the gallons of grease hauled away that month
2. Receive the grease for free
3. Pay the restaurant per gallon of oil collected

It should be noted that there is a known market price of spent cooking oil (known as "yellow grease"), but this price is for the oil the renderers have filtered and refined (Prices for this refined grease can be found [here](#). Note the prices are listed in cents/pound. Multiply the cents by 7.7 to get the price/gallon).



*Photo: Keevac Industries*

### **Uses for Collected Grease**

There are three main end uses for “yellow grease:” a biodiesel feedstock, livestock feed, and for use in manufacturing pet food.

### **A Small Sampling of Haulers/Collectors and Renderers in the Industry:**

The state(s) or region listed next to each company is a presumed service area. This list does not include biodiesel plants or distributors. If you are looking for those, a good reference is the [National Biodiesel Board website](#).

For a more comprehensive list of industry renderers, check out the quarterly updated [National Renderers Association list](#).

### **Haulers/Collectors**

- Alternative Fuel Foundation – New England
- DieselGreen – Texas
- Greenlight Biofuels – Georgia, Maryland, North Carolina, Pennsylvania, Virginia
- Hulsey Environmental Services – Georgia
- Lifecycle Renewables – New England
- Waste Oil Recyclers – Pennsylvania, New Jersey, Maryland, Delaware
- WVO Management - Texas

### **Renderers**

- Baker Commodities – Continental US
- Dar Pro – nationwide (also a collector)
- Valley Proteins –Continental US

## Resources

Water Industry News: <http://www.waterindustry.org/Water-Facts/FOG-1.htm>

IBIS World: <http://www.ibisworld.com/industry/cooking-oil-recycling.html>

The New Yorker Magazine: <http://www.newyorker.com/magazine/2013/11/18/hot-grease>

Consolidated Fabricators Corp: <http://www.con-fab.com/standard-grease-bins>

An Assessment of the Restaurant Grease Collection and Rendering Industry in South Carolina: <http://www.scbiomass.org/Resources/Documents/assessment%20of%20restaurant%20grease%20report%20-%20summer%202010%20 updated .pdf>

US Department of Agriculture National Weekly Ag Energy Round-Up: <http://search.ams.usda.gov/mnreports/lswagenergy.pdf>

Keevac Industries: <http://www.keevac.com/products/vacuum-trucks/>

National Biodiesel Board: <http://biodiesel.org/using-biodiesel/finding-biodiesel>

National Renderers Association: <http://www.nationalrenderers.org/about/directory/>

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