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# Best Practices of Biodiesel Production: Program Results

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Dear Reader:

The following document was created from the MTAS website (mtas.tennessee.edu). This website is maintained daily by MTAS staff and seeks to represent the most current information regarding issues relative to Tennessee municipal government.

We hope this information will be useful to you; reference to it will assist you with many of the questions that will arise in your tenure with municipal government. However, the *Tennessee Code Annotated* and other relevant laws or regulations should always be consulted before any action is taken based upon the contents of this document.

Please feel free to contact us if you have questions or comments regarding this information or any other MTAS website material.

Sincerely,

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# Best Practices of Biodiesel Production: Program Results

**Reference Number:** MTAS-1487

During the first year of Gadsden's operation, approximately 2,000 gallons of biodiesel have been successfully produced. The fleet manager reported that much more fuel could be produced (as much as one 55-gallon batch each day) if more WVO was available in the community. The fleet manager indicated that the collection and processing operations do not place any undue burden on fleet personnel.

Of the 2,000 gallons of WVO collected, approximately 80 percent was from restaurants and other food industries while 20 percent was from residential sources. Approximately 10 restaurants participated during this period, and most of these were either new businesses or relatively small businesses that did not have existing contracts with WVO processors. The residential program has been successful; however, the fleet manager reports that there is a continuing need to educate the public on the opportunity to recycle WVO. The mayor and fleet manager both gave presentations to civic groups and took the one-gallon jugs with them to pass out to citizens. Also, local news media have been very willing to mention the program. The fleet manager reports that any mention of the program in the media results in an increase in oil collected at the community center bins.

The city does not conduct a formal fuel testing program on its fleet, but has had no vehicle maintenance problems since initiating the program. It does conduct periodic fuel tank cleaning to prevent algae growth. Also, it will conduct the 3/27 test periodically to determine if there is any unreacted WVO in the biodiesel. The only problem reported was with excess water in the WVO. This appears to have been the result of leaving the tops off of the 55-gallon drums while at the restaurants. Heating the WVO has been a successful method of removing water from the oil.

Handling the glycerin by-product has also been successful. While initial phases of the program composted the glycerin, the city has now developed a relationship with a nearby company that produces industrial soaps. This business comes to the fleet maintenance facility and picks up the glycerin for further processing, thereby alleviating the need to dispose of the glycerin.

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