



## ENVIRONMENTAL EDUCATION SERIES

# TIMELY INFORMATION

## Agriculture & Natural Resources

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## RECYCLING USED MOTOR OIL

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The United States Department of Energy has reported that nearly two-thirds of all used motor oil in the United States is generated by people who change their own oil instead of having a professional change it and recycle it. There is some concern that if these "do-it-yourselfers" improperly dispose of their oil, immediate and long-term harm to people and the environment could result. The effects on air and water quality are of greatest concern. It is estimated that 260 million gallons of oil is improperly disposed of nationwide each year. This figure is the equivalent in quantity to 24 *Valdez* disasters a year! It is estimated that 176 million gallons of improperly disposed motor oil is disposed of by "do-it-yourselfers."<sup>1</sup>

Oil and other petroleum-based motor products contain many chemicals and additives with toxicological properties. Oil also picks up concentrated levels of potentially toxic elements from the engine. Obviously, improper or illegal dumping of used oil products has the potential to harm our environment. For example, one quart of oil can contaminate up to two million gallons of drinking water (surface or ground water).

Alabama is fortunate to receive one of the highest average rainfall amounts in the United States. However, with an estimate of 4.37 million gallons of used motor oil disposed of improperly, this used motor oil could contaminate up to two-thirds of the average rainfall that occurs in Alabama, and up to ten times the average quantity of water used annually! It only takes one teaspoon (4.9 milliliters) of used oil per square foot of soil to potentially contaminate one whole year of average Alabama rainfall on that square foot!

In addition to the potential harm, indiscriminate dumping of used motor oil is against both federal and state laws. The Federal Clean Water Act provides a civil penalty of up to \$5,000 for discharging a quantity of harmful oil.

For these reasons, recycling used motor oil is the only solution. It also conserves future oil supplies and reduces dependence on foreign oil. To recycle your used motor oil, follow these guidelines:

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ALABAMA A&M AND AUBURN UNIVERSITIES, AND TUSKEGEE UNIVERSITY, COUNTY GOVERNING BODIES AND USDA COOPERATING

The Alabama Cooperative Extension System offers educational programs, materials, and equal opportunity employment to all people without regard to race, color, national origin, religion, sex, age, veteran status, or disability.

1. Call your local county Extension agent for information about local collection sites. Oil retailers and retail service stations with a collection tank should accept used oil for recycling. There may be an income tax deduction for collectors donating to the Auburn University Foundation, or to the University of Alabama's Project ROSE.
2. Pour or drain used oil into an appropriately sized plastic jug or purchase a reusable oil-changing container from an auto parts store. Seal tightly. Oil cannot be recycled if mixed with gasoline, antifreeze, or other products.
3. Transport the used oil to the recycling center and empty the contents carefully into the holding tank.

For some (such as farmers) who have too much stored oil to transport, contact your county Extension agent for possible pick-up services. Used motor oil can be recycled in Alabama via two projects: the University of Alabama's Project ROSE and the Auburn University's Project SOAR. Project ROSE (Recycled Oil Saves Energy) is a nonprofit program sponsored by the University of Alabama. Collection of used oil through Project ROSE is available to the public by three different methods. To find out which method is best for you, contact Project ROSE at 1-800-452-5901.

The Auburn Waste Oil Reprocessing Laboratory (AWORL), under the direction of the Auburn University Department of Chemical Engineering, is conducting a program, the Statewide Oil Acquisition and Reprocessing program (SOAR), to offer Alabamians a means of disposing of used motor oil with relative ease. AWORL will provide transportation of oil from collection sites that store at least 500 gallons of oil. For further information, contact the Department of Chemical Engineering at Auburn University, at (205) 844-2056.

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<sup>1</sup> Information Source: "Cleaning up toxics in and at home"; a video produced by the League of Women Voters.