

U. of Md. researchers to study alternate fuels

COLLEGE PARK, Md. — Four University of Maryland research scientists have been awarded a two-year grant to study the economic and technical feasibility of using vegetable oil as an alternative fuel source.

Oils such as those squeezed from peanuts, soybeans, sunflowers, rape seed and winter wheat could be used to "extend" diesel fuel now used in agriculture, according to Larry E. Stewart, chairman of the University's Department of Agricultural Engineering.

The combination of oils and diesel fuel would work in much the same manner as the current combination of corn alcohol and gasoline to produce "gasohol," he said.

The four scientists, working under the University's Agricultural Experiment Station, and their particular endeavors in the research project include:

✓ Ali Farsaie, Department of Agricultural Engineering, who will study oil squeezing equipment as well as conduct engine tests with oil-diesel combinations;

✓ William Wiebold, Department of Agronomy, who will study various crop combinations of

peanuts, soybeans, sunflower, rape seed and winter wheat to determine which combinations produce the most oil and which grade of vegetable oil is best suited for diesel fuel;

✓ William Lessley, Department of Agricultural and Resource Economics, who will study the economic and energy feasibility of vegetable oils and diesel fuels; and,

✓ Jerry V. DeBarthe, Department of Animal Science, who will study possible uses of by-products from the oil production process as swine and sheep feed supplements.

"Potentially, the use of vegetable oils with diesel fuel or in place of diesel fuel looks very promising," said Stewart.

In 1978, 53 percent of all farm tractors in the nation used diesel fuels, consuming 3.3 billion gallons, he said.

By 1990, 88 percent of all farm tractors are expected to be diesel-powered, he said.

The research grant, awarded by the U.S. Department of Agriculture, is for \$135,187 and was sought competitively by a host of other major universities and private industry.

Farm Talk

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impossible for small companies and new companies to get a piece of the action. He says this means that in the future there will be more market concentration and fewer firms devoting larger expenditures to new pesticide development.

So far, the USDA economist believes this process has not worked to the disadvantage of farmers. In fact, it may have actually helped them. Strong

competition and oversupply during the past decade meant pesticide prices actually increased less than other farm inputs.

But Eichers says he thinks that favorable situation may end. A few firms could find it much easier to regulate the amount of pesticides made available each year and in so doing have a lot more to say about the cost of farm chemicals.

Eichers adds he believes the long-range effect of the concentration of pesticide manufacturing could have good and bad effects on agriculture. Obviously, large firms with large shares of the market have lower production costs and could be in a position to pass that on to farmers. On the other hand, they might manage that production to their

benefit at the expense of farmers.

And the other thing that could happen — pesticide manufacturers, usually large chemical companies with many product lines, could decide that it's not worth the fight to preserve their label clearances and just go out of the pesticide business altogether. As this happens, the concentration of suppliers could become even more serious to the point where two or three giants would decide virtually all of the pesticide output.

Farmers are already having problems finding suitable pesticides for some of the lesser crops — this trend could spread. They may wake up someday and find that chemical companies are no longer willing to produce important pesticides because it just isn't worth it. When that happens, we may all suffer from a reduced food supply.



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