

Farmers told gasohol costs under 50¢ a gallon

BY DICK WANNER

LEBANON—"What is going on at the Municipal Building?" the operator of a gas station near the edge of Lebanon asked a driver who stopped in Thursday morning for directions. "You're the fourth car this morning that's asked where it is."

It's a conference on gasohol, the driver replied. "They're trying to put you out of business. Maybe you should have steered them wrong."

The man looked at the ground, scratched the gray stubble on his chin and said, "Well, I was getting ready to retire anyway." Then he pointed the way to the municipal building.

Chances are that by the time he retires, his pumps will still be dispensing gasoline derived from crude oil.

No matter how long it takes, though, many of the more than a hundred people who came to Lebanon for a look at alternative energy sources came convinced that alcohol produced from Pennsylvania-grown corn will someday power the state's tractors, trucks and cars.

The morning conference was sponsored by the Lebanon County Extension Office. Gasohol isn't the only

alternative fuel worth looking at, especially by farmers, extension agent Newton Bair told the group.

Bair himself has been experimenting with the generation of methane from manure for the past five or six years. In fact he runs his home garden tractor on methane.

He talked about the prospects for methane, wind and water power, geothermal, solar and nuclear power. But the star of the show was gasohol; and Floyd Horst, the Kleinfeltersville farmer who gained national notice less than two weeks ago when Pennsylvania officials shut down the gasohol still on his farm.

Horst and his partner, engineer - and computer expert Robert Kreider, outlined for the group their year-long effort to get a workable still to produce fuel grade alcohol, also known as gasohol or ethanol.

The lure of gasohol isn't new, Horst said. In their patent search, they followed a continuous trail of patents that led all the way back to 1919.

Finding information on producing fuel alcohol was time-consuming and difficult. Finding critics was another matter. They

seemed to be lurking at every corner, Horst said.

"We were told that ethanol would ruin engines. Well, it is a mild acid, so it will eat away at certain parts if you don't adapt the engine."

But we talked to a man in Selma, Alabama, who's got 120,000 miles on his pickup, all on ethanol, and it's still running fine."

Bob Kreider told the crowd, which got larger as the morning progressed, that alcohol fuel hasn't been developed because fuel oil has been so cheap. He recalled when fuel oil by the truckload could be bought for 9 cents a gallon.

Even with the best technology, gasohol is more expensive than that. Horst and Kreider figure it costs them under 50 cents a gallon to produce fuel, but that price should fall with the development of better stills and better techniques.

And cheaper enzymes. Unlike the fermentation that occurs naturally in fruit, grain won't ferment without a little help in the form of added enzymes and yeasts.

For corn, these agents are expensive. For the much more difficult-to-use corn stalk, the agents can cost \$350 per pound.

"We're told that a ton of dry corn stalks can yield half a ton of ethanol," Kreider said, "but you can't afford the enzymes to do it."

Although most of the people in the group were farmers looking for a way to lower fuel costs, some of the

listeners in the audience have been using stills for a number of years.

One man from Perry County seemed to have tried just about every possible avenue to gasohol. He had used solar and conventional stills and had worked with a number of grain products.

Another man from Pottstown said he had some success in distilling a mixture of ground corn and sprouted barley.

The simple sugars in the barley, he said, seemed to eliminate the need for expensive enzymes.

Much of the knowledge he picked up in the last few years came from moonshiners, he said.

Before the end of the morning, but long before the audience ran out of questions, people trooped out of the municipal building auditorium to a parking lot.

There, Horst fired up an oil burner with grain alcohol. The exhaust from the burner was vented into a piece of plastic tubing like the kind used to vent clothes dryers.

The alcohol burned clean. A piece of white paper thrust into the exhaust picked up a few flecks of soot and nothing else.

And it certainly didn't smell like fuel oil, Horst noted as he waved the fumes by the noses of those closest to the truck.

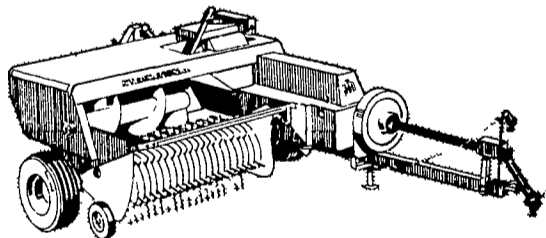
Many of the sniffers shared with Horst the hope that it was the smell of the future.



Floyd Horst, the Lebanon County farmer whose gasohol still was shut down nearly two weeks ago by state officials, fired up an alcohol powered oil burner for a crowd of more than 100 people attending an alternative energy conference in Lebanon on Thursday.

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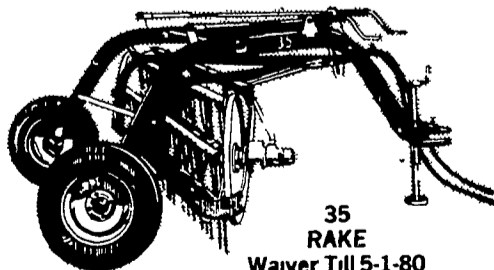
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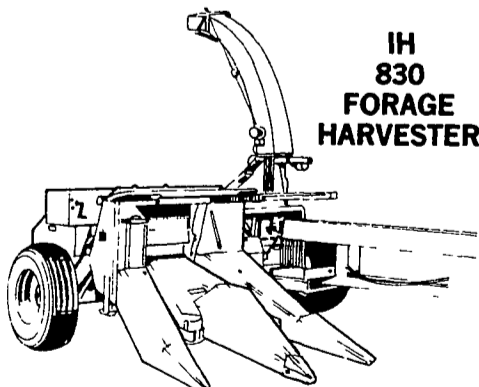
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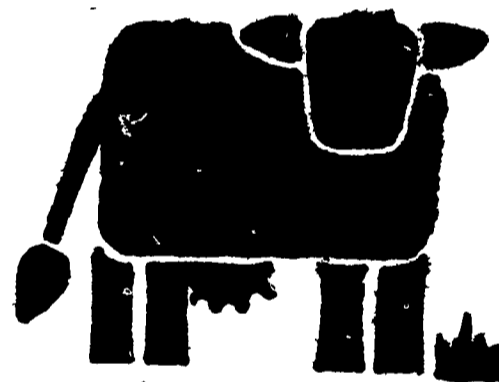
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