

United Press International

NEW YORK — Americans know tapioca as a nourishing root flour used for puddings and food fillers, but in the years ahead it could play a big role in fueling cars, trucks and boats.

Dr. Alfred Globus, head of Guardian Chemical Co. of Hauppauge, N.Y., who has been experimenting for years with fuel mixtures of gasoline, low-grade ethanol alcohols and a catalyst called Hydji, has obtained a 500-acre tract of land on the Brazos River in Texas near Houston and backing to build a plant to distill ethanol from the tapioca root.

If things go as planned, about 10,000 gallons of the ethanol will be sold daily to one or more local refineries. It will be mixed with gasoline and the catalyst in an initial proportion of 10 percent ethanol to 90 percent gasoline. Globus expects the proportion of ethanol eventually will be raised to 25 percent, which the American Petroleum Institute has concluded is the ideal mixture for good mileage and economy.

"Either mixture definitely would be competitive in price with straight unleaded gasoline," he said.

Globus had driven cars for several years on mixtures containing as much as 40 percent ethanol with no damage to the motors, but such mixtures are not really fuel-efficient and would be justified only if the price of gasoline went much higher than it is now, he said.

Globus also has a venture pending in Australia to make ethanol for fuel from the cassava, or manioc, plant, as tapioca is known in much of the world. He said the deal is being delayed because gasoline isn't expensive enough yet in Australia to make it very profitable.

Brazil is the country most advanced in the use of alcohol-gasoline fuel mixtures. The Brazilians have launched some 170 programs with projected costs totaling nearly \$800 million aimed at the development of alcohol-gasoline or all alcohol fuels. Most of these still are in early stages.

The Brazilians are experimenting with bagasse (sugarcane waste) and certain weeds and currently are building a cassava distillery with

a capacity of 18,000 gallons a day at Belo Horizonte. What is holding the program back in Brazil is that Petrobras, the Brazilian state oil company, makes much more profit out of gasoline than it could hope to make out of an alcohol-fuel mixture, Professor Jose Goldemberg of the University of Sao Paulo said recently.

More than a score of American senators and representatives have begun to show interest in alcohol as a motor fuel additive. Some are interested in the "gasohol" project envisioned by Nebraska corn-growing interests because they think motor fuel from corn has political clout. But sawdust, wastepaper, cornstalks and a wide variety of weeds also are proposed. Globus says cassava seems to be the most promising in the United States and in many other countries. "It is highly disease resistant, it doesn't have to be harvested annually and it can be grown in comparatively large areas of our Gulf states on land not presently being farmed," he said.

Nevertheless, government officials and oil industry spokesmen remain skeptical about the ready availability of any raw material for alcohol additives for motor fuel.

What goes in tank?

Most visits to doctors not needed

United Press International

A new breed of doctor these days leads a movement aimed at bringing out hidden medical talents in the average Joe and Jane.

It's a self-help trend bolstered by crusading physicians who say 60 to 80 percent of illnesses are self-limiting — they go away without medical intervention if you just let them run their course — or they can be treated by a knowledgeable person on a do-it-yourself basis.

The cold is the most common self-limiting medical condition. You've heard what is said about that: go to a doctor and it gets better in seven days; don't go to a doctor and it gets better in a week.

The National Ambulatory Medical Care Survey showed from 30 to 70 percent of visits to physicians were unnecessary. Doctors participating in the survey rated only 17 percent of visits to be for serious or very serious problems.

Nearly half the remainder of the visits were for conditions rated as not serious.

Health care economists say the self-help medical movement can cut billions of dollars off the nation's \$150 billion a year health care bill by cutting down unnecessary visits to doctors.

They figure if just one-third of the trips to doctor are not necessary, and that's the lowest estimate, 200 million visits a year are wasted. The doctor's time is wasted; ditto for the patient's time and the money for the doctor bill.

Not all of the nation's doctors are out there nudging timid patients into self-care.

But the movement's leaders are believed to be having a powerful effect on many medical consumers and the future direction of health care in America.

Also joining in the movement to more intelligent self-care are Blue Cross and Blue Shield associations, and federal, city and state health agencies.

In many areas, public health groups and "the Blues" are boosting health education programs. These projects aim to motivate medical consumers to take better care of themselves, keeping little troubles from becoming lethal.

One self-care slogan puts the idea in a capsule: "Nobody can take better care of you than you."

Self-care movement physician leaders include Dr. Donald Vickery, a family doctor from Arlington, Va., and Dr. Keith W. Sehnert. Sehnert set the scene for self-care among the occupants in housing for the elderly while at Georgetown University Medical School in Washington, D.C.

Now a vice president at InterStudy, a health policy think tank in Excelsior, Minn., Sehnert designs self-care, chemical abuse and anti-stress projects, nutrition management and other health programs for private and public entities, including corporations, colleges and the government.

He also has helped to design an auto trauma kit and a burn trauma kit, soon to be marketed by Marshall Electronics Inc. of Skokie, Ill., and a "doctor's black bag" for laymen. It contains a lot of doctor's equipment: blood pressure cuff, stethoscope.

Young parents, adolescents, students from elementary school to college, middle-aged and elderly, moving to the beat of the self-care movement, like the idea of taking direct action and responsibility for their own health care — where and when possible.

Even when they see a doctor, they want to participate in decisions about treatment.

Both Vickery and Sehnert have put together guides showing persons how to take care of themselves, with very careful checklists to be used to determine when self-care won't do and a doctor must be seen or when a trip to an emergency room is vital.

Sehnert, who began family practice in Nebraska, calls his book "How to Be Your Own Doctor (Sometimes)." Howard Eisenberg, a senior editor at Medical Economics, a publication about the doctor business, is the co-author. The book is in its eighth printing.

Vickery has done two books: "Take Care of Yourself — A Consumer's Guide to Medical Care" and "Taking Care of Your Child." Dr. James F. Fries co-authored the first; Drs. Robert H. Pantell and Fries helped with the third.

SHOP PIGGLY WIGGLY
WIN UP TO \$2000
PLAY PIGGLY WIGGLY'S
TRIPLE PLAY-DOUBLE PAY
BINGO
OVER \$250,000 IN PRIZES!!!



Collector Card No. 1 NOW AVAILABLE!

Pick up your card and start playing exciting Triple Play Double Play Bingo. Save all your extra markers, they may make you a winner on Cards 2 or 3.

Collector Card No. 2 AVAILABLE ON MONDAY OCT. 30, 1978

You may already be a winner when you get Collector Card No. 2 with the markers you already have. Many markers may play on more than one card.

Collector Card No. 3 AVAILABLE ON MONDAY NOV. 27, 1978

You may already be a winner when you get Collector Card No. 3 with the markers you already have. Many markers may play on more than one card.

YOU GET 3 DIFFERENT COLLECTOR CARDS

BINGO

This game is being played in 114 participating Piggly Wiggly stores located in Louisiana, Arkansas, Eastern Texas, Southeastern Oklahoma and Western Mississippi.

The odds shown below are effective for the first 30 days of the promotion. After that, updated odds will be posted in stores and newspaper ads. Odds vary depending on the number of game pieces you obtain. The more pieces you collect the better your chances of winning.

WIN IT'S EASY! IT'S FUN! IT'S EXCITING!

\$2000 • \$1000 • \$100 • \$50
\$20 • \$10 • \$4 • \$2 • \$1

VISIT PIGGLY • WIGGLY OFTEN!
THE MORE MARKERS YOU COLLECT THE BETTER YOUR CHANCES TO WIN!
OVER 82,000 PRIZES!
1000'S OF INSTANT WINNERS!

IMPORTANT NOTE:
SAVE ALL YOUR MARKERS
MANY MARKERS MAY PLAY ON MORE THAN ONE CARD



THE FRIENDLIEST STORE IN TOWN
• 2700 Texas Ave. S
• 3516 Texas Ave.
• 200 E. 24th St.
• 9 Redmond Terrace
COLLEGE STATION and BRYAN, TEXAS

ODDS CHART ... EFFECTIVE OCTOBER 12,

Prize Value	No. of Pieces	Odds for 1 Game Piece	Odds for 15 Game Pieces	Odds for 30 Game Pieces
\$2,000	20	1 in 565,000	1 in 37,667	1 in 18,833
1,000	45	1 in 251,111	1 in 16,741	1 in 8,370
500	250	1 in 45,200	1 in 3,013	1 in 1,507
250	500	1 in 22,600	1 in 1,507	1 in 753
100	2,500	1 in 11,300	1 in 753	1 in 377
50	5,000	1 in 5,650	1 in 377	1 in 189
25	10,000	1 in 2,825	1 in 189	1 in 95
10	20,000	1 in 1,412	1 in 95	1 in 48
5	40,000	1 in 706	1 in 48	1 in 24
2	80,000	1 in 353	1 in 24	1 in 12
1	160,000	1 in 177	1 in 12	1 in 6

Total No. Pieces: 82,465
Scheduled Termination Date: Wednesday, January 3, 1979
This game may be repeated.

Double S&H Green Stamps every Tuesday with \$2.50 or more purchase.

we welcome FOOD STAMP SHOPPERS