U-M Prof. Finds Synthetics To Pep Up Diets

ANN ARBOR--A nutritious synthetic food, designed to supplement the diets of children and adults in underfed countries of the world, has been developed by a University of Michigan scientist.

Prof. Lloyd E. Brownell of the department of chemical engineering has produced the Batina seed, which closely resembles rice, from purely vegetable sources.

The major components are cereal flours (mostly wheat with some oats, barley, and corn), toasted legume flours (soy), wheat germ, dehydrated yeast, and vitamin and mineral supplements to give a completely balanced food.

* * *

"THIS IS PROBABLY the first really successful product which could be substituted for rice in typical rice recipes," Brownell commented. "It should be a great boon to solving malnutrition in the tropics. Our philosophy was to develop a food which the countries could produce themselves, using local food sources, at minimal cost.

Malnutrition is one of the major causes of death in the tropics, where infant mortality sometimes runs 45 times as high as in the United States and Europe. Protein deficiency and famine often stunt the growth and mentality of the children who do survive.

"The U.S. Department of Agriculture has developed a food, known as CSM (corn, soybeans, and milk) for consumption in these countries," Brownell said. "But it is a gruel, really a baby food, and not adequate in texture for adult tastes. My idea was to create a food which would not only be nourishing for children, but which would also be a nutritious and satisfying supplement for adults. Rice is a basic food--probably the favorite one of people in the tropics--so I wanted to create something which would cook like rice and have the same consistency so it could be easily substituted in native dishes."

Brownell deliberately produced a lentil-shaped disc rather than rice-shaped seed because rice is considered almost sacred in some parts of the world and an imitation might be offensive.

* * *

BROWNELL developed the Batina seed under the sponsorship of the Battelle Northwest Laboratories in Richland, Wash., operated by Battelle Memorial Institute, a nonprofit research organization. The name Batina is a combination of the words Battell and farina (a general term for cereal flours).

The Batina seed is made in a high-speed press, similar to a macaroni machine. When cooked, the seed has "a pleasant, slightly nutty flavor," Brownell said. It cooks in about 10 minutes and costs about the same as rice.

Brownell has produced the Batina seed in two forms: raw and toasted.

The raw seed, when cooked in water, produces a gel, which is not desirable in many rice recipes (although it can be used in such dishes as chile con carne). Brownell added vegetable oil to the raw seed, and then toasted it, to produce the second variety (the oil keeps the surface from being wetted and prevents the particles from sticking together). By allowing the toasted seeds to stand about 10 minutes after cooking, the water is completely absorbed without the loss of valuable water-soluble nutrients.

Brownell also sees the Batina seed as being of possible interest to the American public as a means of weight control. "To gain weight," Brownell explained, "you could eat the boiled Batina with melted butter poured over it. This would give you all the protein you need, plus the extra fat. To reduce, you could simply cook the Batina with a number of low-calorie, high bulk vegetables such as celery, green peppers and summer squash."

* * *

SEVERAL STUDENTS at Michigan's International Center have prepared dishes from their native lands using the Batina seed as a rice substitute. While all found the taste quite palatable and agreed that it cooked like rice, several objected to the beany odor the seed gave off while cooking. Brownell explained however, that the smell can be easily altered by using additional flavoring materials like curry powder or by substituting a different protein source for the soybean.

Brownell has also produced a Batina flour, made from the Batina seed, also to be used for substitution in native dishes. He is still developing Stars Bars, a nutritionally balanced candy bar.

4-Day Week Sounds Great But May Not Be Feasible

ANN ARBOR--The four-day, 32-hour work week doesn't sound as great after an economist asks a few questions.

Visions of three-day weekends for travel, fishing, house maintenance, or games with the kids fade somewhat when put into perspective by Prof. J. Philip Wernette of The University of Michigan.

His article on the four-day week in management publication starts with the most important question of all.

* * *

HOW CAN A worker have his work week cut from 40 to 32 hours without taking a similar 20 per cent cut in wages? To expect otherwise is to demand a 20 per cent increase in wages with no increase in productivity.

Even a beginning economics student would tell you that higher pay without an accompanying increase in productivity means that no real increase in the living standard has occurred The net result would merely be inflation.

The American people have a standard of living at least five times as high as the average of the entire rest of the world, Prof. Wernette points out. This is true not of the rich alone, but of the average American workman and his family.

The reason for this high standard of living, the U-M economist emphasizes, is that the output per man-hour has increased because of better production methods, more and better power-driven machinery and equipment, more skillful managers, and a better-educated work force. The accompanying higher wages have up to now been used in large part to buy more goods rather than to buy more leisure.

* * *

"IF EVERY BUSINESS instantly reduced weekly hours by one-fifth, the total production of goods and services would drop," Wernette points out. "If this happened, the American standard of living would go down."

"If the work week is to be reduced while wages are not, the change will have to be done slowly," he adds.

Wernette questions whether a majority of Americans really want to work less. In 1929 the average work week in manufacturing was 44.2 hours. In 1967 the average work week in manufacturing was 40.3 hours, not a dramatic change, and an indication that workers prefer most of their economic gain in money instead of leisure.

"Some people say that shortening the work week might itself cause output per man-hour to go down. More workers might take a second job. This action--for those workers--might result in more fatigue, more spoilage, and reduced diligence.

* * *

"ALSO," HE ADDS, "in a five-day work week, the first day and the last day are often less productive than the other three days. A four-day week would leave only two high-producing days instead of three.

"In any event," says Wernette, "this great rule still applies: gains for all of America's workers--in real income, leisure, or some of each--depend on increasing the production of goods and services. Then people can enjoy more and better food, houses, automobiles, household appliances, and other desired products--plus more leisure."

Wernette also asks other questions:

For example, will the shorter work week apply to all? If so this would mean fewer hours in school for the children, since teachers and professors would work less. The alternative would be that some Americans would have a shorter week, but others would not.

How would the "others" feel about this situation?

Munro Doctrine: Use Education To Help Negroes

Dr. James Munro left Harvard College four years ago to go to tiny Miles College near Birmingham, Ala., to mount a crusade for Negro education.

He switched from the prestigious eastern campus happily. Here's why:

"I reached a point as a fellow in education where I believed the education community has a responsibility to the country to solve the problem of inequity of opportunity for Negroes."

Sitting in a student's armtype desk in an old classroom at Miles, he talked about education and the United States and the gap in educational opportunity and humanity and compassion and how they all are inseparable.

That, he added, is why he came to Miles permanently last June.

Munro had conducted an experimental program for 40 college-bound Negro high school graduates at Miles during the summer of 1964. Originally only marginal bets to succeed in college, products of that summer program now are ready to begin graduate work at some of the top schools in the nation.

"These people need to be given a break and we don't do it," he said. "At Harvard, I could work on a piece of the problem, but there's more opportunity here.

"These students are tremendously responsive. They make up one of the most interesting groups to teach I've run into in a long career of teaching.

"The problem is to bring them fast," Munro continued. "The question is can you do it? We must help them catch up."

Most Negro colleges are working on the problem of inadequate high school backgrounds hampering a high percentage of Negro students entering college.

"I want to be in that effort," Munro said. "I feel it's very important for the U.S. community to be involved in it."

He added that the Miles situation presented an important chance to work on the problem because "Birmingham is a better town racially than most think." He said some things were learned by both sides in the racial turmoil of the early 1960s--"not enough yet, but the basis for working things out may be here."

"I think if I have learned one thing in the past six months," Munro said, "it is that this is the place where the education community has to work: to find ways of telling these young people the truth --what their great-grandparents and grandparents didn't know about their history.

"We're trying to substitute facts and reality for nightmares. Our textbooks coast to coast just do not do this for Negroes. And it's not a problem just in the South, it's nationwide."

He added, however, that the textbook situation is beginning, slowly, to improve.

Munro said he sees the civil rights movement as having moved from integration to confrontation. He carefully emphasizes that this does not mean that an integrated society is not necessary, but that Negroes especially young ones, must find two identities--with Negroes and whites.

"I'm afraid the racial division is too serious for the young ones to find identity with the white community alone," he explains. "They must make two identifications--with white and black communities. And it's possible to have both."

He said that Negro physicians, lawyers and engineers can compete successfully in an integrated society, but still have a cultural identity of their own.

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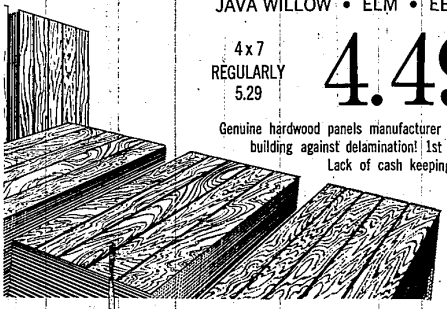

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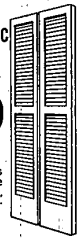

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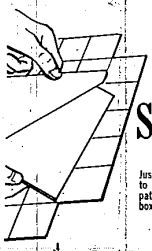

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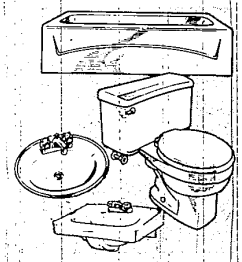

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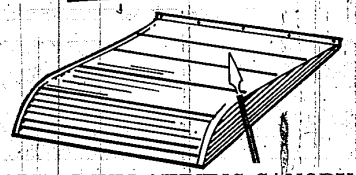

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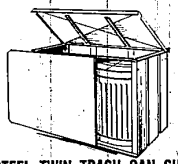

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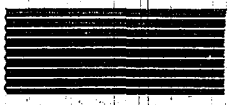

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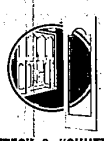

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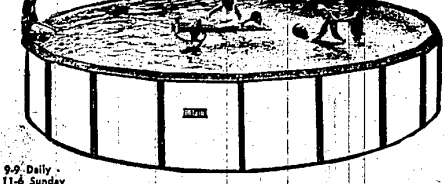

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