

Knowledge in the Making

New Use Developed for Cheese By-product

The problem of costly disposal of a cheese-makers' by-product has a new possible solution that tastes like a chocolate milkshake. Every 10 pounds of milk for cheese production makes about one pound of cheese and nine pounds of whey. The whey contains valuable protein, milk sugar, minerals and vitamins, but nearly half of it nationwide is just thrown away for lack of practical use. The disposal itself is costly to sewage plants, which usually pass the costs back to the cheese makers.

A new product developed by University of Arizona food scientists Blanca Wagner, Dr. J. Warren Stull and Ralph R. Taylor combines whey with some peanut powder and a little sugar and chocolate. The result is "a highly nutritious and appealing chocolate-flavored beverage," said Stull. Equally important, the process avoids expensive steps such as drying, condensing or fractionating the whey.

Taste-test panels of about 250 people gave the drink a high rating in appeal.

This fall, a food industry journal reported on the development and testing of the whey drink. Since then, several companies have called expressing interest in commercial application, said Stull. About 20 million tons of whey were produced in the United States last year.

Arizona turns out about 2,500 tons of whey a year from the making of cottage cheese and other cheeses, mostly in the Phoenix area. Some of it is trucked to livestock-feeding operations and some is discarded.

20 Nations' Foresters Join for Fire Training

In South America, unlike North America, few forest fires are started by lightning. The spread of growing populations into forested areas, however, is making forest resources in South America both more threatened and more valuable. Hugo Knockaert, in charge of forest fire control in Chile, said that about 4,000 forest fires per year, almost all human-caused, burn about 75,000 acres of Chile's forest a year. Nearly a million acres of forest in Peru have been burned by human-caused fires since 1974, said Peruvian forester Simon Morales Tejada. Where fires are part of the natural forest cycle, they provide long-term ecological benefits, but Knockaert said South American forest fires rarely fit that role.

To help in control of forest fires in South America and elsewhere, the U.S. Forest Service's National Advanced Resource Technology Center near Marana taught a two-week course in Spanish this fall to 63 foresters from 20 Latin American and European countries. The U.S. Agency for International Development sponsored the course, partly in response to a request from the Dominican Republic after



Foresters from Latin America, Spain and Portugal watch a demonstration of slurry bombing to restrain a fire. They also studied training methods and lower-cost technologies.

a destructive fire in that island nation last winter. The course combined portions from several fire-management courses that have been taught in English at the Forest Service training center, most of which carry graduate-school credit from the University of Arizona.

For the course, foresters from such politically diverse countries as Nicaragua and El Salvador studied side-by-side. The participants prepared a document commemorating the international cooperation evidenced by the course.

Instant Health Info Line Tops 48,000 Phone Calls

More than 48,000 times in the past 16 months, Arizonans have dialed up the state's Instant Health Info operator to hear a taped message about some health concern. More than half of the callers who were polled later said that they had taken some positive action to improve their health or their families' health after hearing the tapes. In the recent survey, 89 percent said that the tape they had requested had provided the information they sought.

Instant Health Info is a statewide telephone link to 350 pre-recorded tapes about health and safety. Its toll-free number is 1-800-525-INFO, or 628-5900 for calls from Tucson. The program is sponsored by the UA Cooperative Extension Service. Many of the tapes are offered in both Spanish and English, and 18 tapes are aimed for children, said Bernice Epstein, coordinator of the program.

Tapes are three to six minutes each. Lists of them are available from the Instant Health Info operator and from county offices of the Cooperative Extension Service.