

# Professor finds milk antibiotics

by MARLENE TIMMERMAN  
East Campus Editor

Experiments now being carried out on East Campus may be the beginning of finding unknown nutritional properties of fermented milk products.

Kehm Shahani, professor of Food Science and Technology at the College of Agriculture, has discovered that milk cultures possess strong antibiotic properties.

Shahani's research began twelve years ago with the study of milk cultures that turn milk into cheese, yogurt and buttermilk.

Joint efforts of Shahani and his graduate students have isolated two antibiotics from milk cultures, which inhibit both gram positive and gram negative bacteria. Most antibiotics now available kill only positive strains.

One of the extracted materials now being studied is called "Acidophilin." The process developed is in the process of being patented by Shahani, on behalf of the University. The other antibiotic called "Bulgarican" is being studied by a drug company to further evaluate its efficacy and usefulness for therapeutic purposes.

Shahani was born in India. He received his Ph.D. at the University of Wisconsin and has been on the NU faculty since 1957.

The interest in studying milk and milk cultures began with the observation that people in countries, such as Bulgaria, Russia and India tend to have substantially longer lives than in the United States if they survive through childhood and adolescence. The longevity of their lives despite lower standards of living and sanitary conditions was attributed to the food they eat, which was thought to give them added protection. The populations of these countries consume great quantities of milk products such as yogurt and cheese. In these forms the food didn't need to be refrigerated, thus eliminating the need for rather scarce refrigeration equipment in these underdeveloped countries. These milk cultures also tend to manufacture large quantities of vitamins during fermentation.

In addition, some of the extracts obtained have been found to possess anti-cancer activity when tested against experimental tumors in mice. Though the anti-cancer activity of these compounds is at present found to be minute, they provide a promising hope.

Shahani said it would be "highly desirable if the anti-cancer agents were found to be the natural elements of milk and milk cultures. Consumption of fermented milk and milk products—buttermilk, various cheeses and yogurt—would then provide for development of antibiotics and anti-cancer substances within the consumer and provide natural resistance."



Four corners of the world discuss International Open House. From left, Yoshitake Yamasaki (Japan), Arund S. Iyer (India), Joseph F. Hsu (China), and Wally Deifallab (Arabia).

## Open House promotes understanding

Both American and foreign students are engaged in an effort to help promote international understanding. International Open House, sponsored by the University

4-H Club, will be held Sunday Feb. 21 at the East Campus Activities Building 2-6 p.m.

Nancy Andrews, chairman of the project, explained, "The purpose of the Open House is educational as it will give foreign students on campus a chance to express what their cultures are like." University students, as well as the general public, are invited to attend.

Sixteen groups will be represented. Activities will include karate and judo exhibitions, movies, posters

and demonstrations of native dances. Handmade crafts from many of the countries and from Wilber, Neb., the "Czech capitol of the world," will be displayed and sold. Frank Marsh, former Secretary of State, will represent the Mayor's Committee for International Friendship.

Opportunities for international travel will be presented. Foreign job possibilities and information on how to travel inexpensively will also be offered.

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## Agronomy students receive grant

Four undergraduate agronomy students in the University College of Agriculture will do full-time research for 12 weeks this summer, supported by a \$4,330 grant from the National Science Foundation.

This will be the 11th year of the program at Nebraska, according to Gary A. Peterson, program coordinator.

The participating students will have a choice of research

projects in 10 different areas under 10 scientists. The research areas include agricultural pollution, soils, biochemical genetics, weeds, plant growth, prairie grasses, and statistical analysis, Peterson said.

During the past 10 years, 46 students have participated in the program and 38 of these have gone on to do graduate studies in the field of their research experience, he said.

## Block and Bridle picks 1971 Queen

East Campus Block and Bridle Club crowned Susan Vierregger 1971 Queen.

Susan is a sophomore majoring in Home Economics.

The candidates received their votes on basis of ham sales credited to each. Proceeds from this activity are used to finance their club's activities for the upcoming year.

First runner-up was Janet Hagen and second runner-up was Ann Paulson.

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