

Soybeans fortify Mexican tortillas

MEXICO CITY, Mexico — A small army of "Missionaries" is hard at work in Mexico spreading the "gospel" of soybeans. Their message—soybeans offer a good quality low cost protein supplement to the Mexican diet at a time when both money and meat are scarce.

The "missionaries" are the staff at the American Soybean Association Human Nutrition Center in Mexico City. Their knowledge, in demand right now, is helping expand markets for U.S. soybeans. The HNC, established in 1960, conducts its work with the help of checkoff investments of U.S. soybean farmers.

"People in Mexico are interested in nutrition education," says HNC director Ruth Orellana. "And when nutrition education is offered in a program of soybean nutrition, it seems to have a double value to people."

Orellana says soybean nutrition information is in demand by all kinds of people. Her staff found food manufacturers who were interested in improving the nutritional qualities of their products, such as tortillas, but didn't know the techniques for adding soy-protein. They also found health care professionals who wanted to learn more about soybean nutrition, but didn't have access to such information.

Reflecting on the extremely successful and immensely popular lectures and workshops given by the HNC, Orellana decided to put together a 15-hour short course lecture package and offer it to universities and technical schools. Soon the requests started pouring in.

"We offered them free of

charge," says Orellana. "Some people say that free offers aren't appreciated, but I don't believe that philosophy. In fact, we're finding now that universities are more selective in who can attend our courses. One university has found it necessary to hold a lottery to select qualified individuals when space is limited."

The HNC staff has presented 15 courses since the program began in January. Almost 500 people took the courses during the first half of the year. The courses are designed for university-level students in nutrition, food technology and other areas of health care, as well as for doctors, nurses, and social service workers. But the HNC staff has an ulterior motive, albeit a beneficial one.

Each time the course is presented the soybean message reaches many people who make decisions affecting nutrition in Mexico. According to Ed Quinones, ASA Division Manager for South America, government and private projects offer the greatest potential for increased use of U.S. soybeans.

"The nutrition education programs of the Human Nutrition Center are an excellent opportunity for us to show the benefits of using soybeans in the diet," says Quinones. "The program also makes it possible for us to show the food industry how to use soy products to produce high quality foods that will gain consumer acceptance."

"Our program evaluation shows that teaching soy nutrition to professionals has a tremendous impact," explains Orellana. "Sometimes we're just lucky, too," she admits.

To illustrate she tells what happened as a result of a course taught by assistant nutritionist Adela Perez in Baja California. At the completion of a recent nutrition course, the state government not only hired an HNC-trained nutritionist, but also employed eight technicians to help spread the soybean message in the state's innovative nutrition program.

While Perez was in Baja California, she and Guillermo Sada, who is in charge of the state program, called on a tortilla plant owner/operator in hopes of interesting him in fortifying his tortillas with soybeans. Although they didn't know the man, it turned out that he was quite interested in their product. As the owner of four factories and president of the tortilla factory association in Baja California, he had, for some time, been interested in making a soy-fortified product, says Orellana.

After explaining the technical aspects of using soy flour, Perez calculated that producing one kilogram, (a little over two pounds) of soybean fortified tortilla mix would only cost one cent more than non-fortified tortillas. The plant owner figured his company could absorb the minor additional cost so the price to consumers remained the same.

Shortly after he began fortifying the tortilla mix once a week in one factory the owner noticed that people were lining up to get the tortillas produced there.

They like them because they are

whiter and roll better than regular tortillas, the factory owner explained.

"Besides improving the color and texture, an eight percent addition of soybeans increases the protein content in the tortillas to about 14 percent," Orellana says. "And it's much better quality protein because the soybean amino acids compliment the corn amino acids." Now all four factories fortify tortillas—each using about 9 bushels of soybeans a week—and are ordering soybeans from the United States.

These four factories alone are using around 2000 bushels of soybeans per year to fortify tortillas—roughly equal to the annual production of an efficient Midwestern soybean farmer. Considering the huge annual Mexican tortilla consumption — it's easy to see that inclusion of soy-fortified flour in tortillas provides a huge potential market for U.S. soybean

farmers.

"This is an extension of the Human Nutrition Center policy to increase demand through nutrition education," Orellana says. "The people we teach take the message and go further with it. People in Mexico are now looking for soybean products. They are forming co-ops and are going to the government with their request for good quality, edible soybean products."

"Fortifying tortillas is going to be the real thing in Mexico and Central America," Orellana predicts. "That's where we can use most soybeans. Bakers are probably the biggest users of soy in the United States. There's no reason why they shouldn't be in Mexico."

The Human Nutrition Center continues to get requests for its short courses and the staff plans to carry on spreading the soybean nutrition message.



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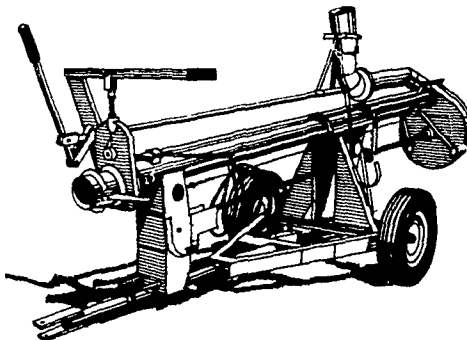
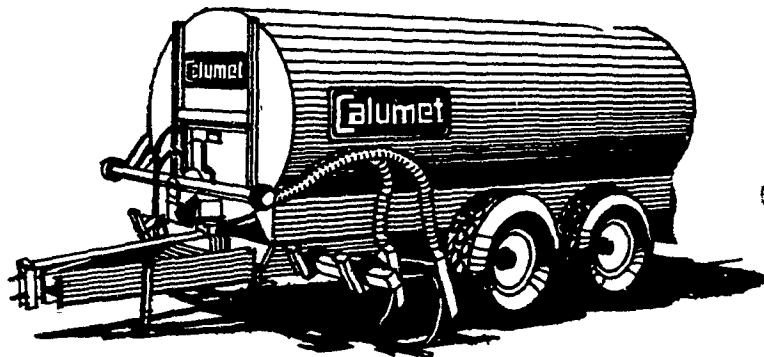
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