University Researchers Developing Better Sweet Potato for Baby Food

A sweet potato breeding and testing program aimed at finding an improved sweet potato particularly suited for baby food is being conducted by a team of Louisiana State University researchers under a $20,000 grant from the Gerber Products Company.

Directing the LSU Agricultural Experiment Station project, to extend over three years, is Dr. Julian C. Miller, professor and head of the LSU department of horticulture and landscape architecture.

The effort is being made with baby food in mind, because the sweet potato is an especially well-balanced and nutritious food, Dr. Miller said.

A quality, lacking in standard varieties, particularly sought after in the program, is high colloidal consistency, a sugar-starch mixture, relationship whereby solids do not settle, leaving liquid at the top.

LSU researchers playing a vital role in the project are Dr. Temes P. Hernandez, professor of horticulture, in charge of sweet potato breeding, testing and selection; Dr. Donald W. Newsom, professor of horticulture, supervising storage and marketing; Dr. Reginald A. Baugnardi, assistant professor of horticulture, working on storage and processing, and Travis P. Hernandez, superintendent of the LSU sweet potato experiment station at Chase, in charge of production.

A graduate student will also be assigned to the research under professorship of the grant.

Dr. Miller said much progress has already been made in developing varieties that are ideal for baby food as well as for adult consumption.

A big step forward was made with the development of the Centennial sweet potato, released in 1960, which has almost twice as much vitamin A as other varieties, has a high solid content, and is rich in carbohydrates, proteins and minerals.

The objective of the research, Dr. Miller said, is to develop a sweet potato that will retain or show improvement on all the good qualities of the standard varieties, while providing high colloidal consistency, when processed into mushy, easily digestible food for babies.

Solving this problem, he said, should increase the demand for sweet potatoes in the manufacture of baby food, thus providing added market outlets for the Louisiana sweet potato market.

The program calls for the testing of numerous selections of the three standard sweet potato varieties, Centennial, Golden and Unit. Through crossbreeding LSU researchers are trying to develop new high yielding sweet potatoes that will have a better combination of all the desired qualities for baby food.

In LSU laboratories sweet potatoes are inspected, baked, tasted and chemically analyzed for content. Colloidal consistency of samples is evaluated through a special filtering process.

The best seedlings of the three standard varieties and about 50 of the most promising new seedlings to be developed will be sent to the Gerber Products Company's research laboratory in Fremont, Mich. Research there will be concerned with the more complex details of baby food manufacturing.