

Marsh, Alice Garret (1908–1997)

HANNAH PARK

When she wrote this article, Hannah Park was a third-year student at Pacific Union College, pursuing dentistry and a Health Communication major and Chemistry minor. She is also interested in real estate and has a California Real Estate license..She is the youngest of three siblings and has a twin sister.

Alice Garret Marsh, home economics professor, registered dietician, and nutritional researcher, played a significant role in promoting the benefits of a vegetarian diet.

Early Life, Marriage and Early Career

Alice Marsh was born on February 20, 1908, to Roscoe Uriah Garret and Edith Belle Becker in Berrien Center, Michigan. She had a brother, Evan LaRue Garret, who was four years older than her, and a sister, Dorothy Delight Ridings, who was 13 years younger. When Alice was 11, she and her family moved from Berrien Center to Holly, Michigan.

On May 21, 1927, at the age of 19, Alice married Frank Lewis Marsh, who would become a well-known Seventh-day Adventist biologist. The wedding took place in Berrien, Michigan, and then the couple moved to Lyons, Illinois. After completing her bachelor's degree Alice, along with her husband, taught at Hinsdale Academy. He taught science and math, and she taught English and "domestic science."

In 1935 Alice and Frank Marsh moved to Lincoln, Nebraska, where Frank joined the faculty of Union College.² Alice pursued graduate studies at the University of Nebraska, where she engaged in research under the



Alice Marsh (left), chairman of the Andrews University Home Economics Department, presents a \$2,100 internship from the Loma Linda University School of Public Health, Department of Nutrition, to Elizabeth Edokpolo (right), a Nigerian alumna of Andrews University, 1970.

Photo courtesy of Center for Adventist Research.

direction of Ruth M. Leverton in the Department of Home Economics, studying the effects and needs of nutritional elements in the female body.³ In April 1942 Alice Marsh and Ruth Leverton published their research entitled, "One Hundred Studies of the Calcium, Phosphorus, Iron, and Nitrogen Metabolism and Requirement of Young Women." Alice Marsh earned the degree Sc.D. (Doctor of Science).⁴

While in Lincoln Alice gave birth to two children, J. Kendall Marsh and Sylvia Marsh (later Fagal)⁵. In about 1947 Alice Marsh joined the faculty of Union College as a professor of Home Economics.⁶

Andrews University

In 1950 Alice Marsh was hired by Emmanuel Missionary College, later called Andrews University. As part of her employment agreement, Dr. Marsh, a passionate nutrition researcher, asked for a machine to measure metabolism and a freezer for storing samples and foods for her research. She involved students in her research as her assistants. Volunteer students were also involved as subjects of some studies.⁷

As early as March 1952, Alice Marsh took advantage of a college blood drive to study protein consumption and hemoglobin levels. One graduate student and two undergraduates assisted her in this research.⁸

Perhaps her most highly publicized study was "Operation Nutrinaut," conducted jointly with Chemistry Department chair Dwain Ford. The name of the study was chosen to capitalize on the current interest in the astronauts' preparation for space exploration. The "Nutrinauts" were seen as exploring new frontiers in nutrition. This research project was designed to study the metabolic response of teenage girls to a lacto ovo vegetarian diet.⁹

The study took place in three different phases of 25 days each. The participants were female college students of similar age. The girls had to eat a "rigorously controlled" diet of plain food and were only allowed to drink distilled water. This was to ensure that the participants' vitamin and mineral intake could be accurately recorded. The subjects' blood and secretions were monitored and chemically analyzed for such components as "nitrogen, calcium, phosphorus, magnesium, iron, and a number of blood constituents."¹⁰

Sharon Ekkens, one of the participants, recalls that "at the end of a meal" she "never felt full," but she "also felt the best that [she] had ever felt." She also remembers that "Mrs. Marsh was always fair, professional, cheerful, and exact. She explained well how to do something and was very enthusiastic."¹¹

Preparation for the study began months in advance, preparing such food as "uncolored, unflavored, and unsalted margarine." Each portion of food was weighed to four decimal places to ensure accurate data.¹²

Marsh and Ford received two grants totaling US\$36,000 from the United States Department of Agriculture for this study. This was the largest student-faculty collaboration project at the university at least prior to 2007. Involved in the research with Ford and Marsh were four other colleagues and 19 student researchers and assistants. Their research was published in 1967 in the *Journal of the American Dietetic Association*.¹³

Marsh's views on animal protein, calcium and phosphorous were mentioned in *The Vegetarian Times* in 1997. She suggested that red meat leads to a higher amount of phosphorus in the human body. The article pointed out that other scientists had concluded that the proportion of calcium to phosphorus in the human body is as significant as adequate calcium intake.¹⁴

Dr. Marsh also studied bone marrow and the effects of a vegetarian diet. Her research led to the conclusion that a vegetarian diet leads to a lower loss of bone mass upon aging.¹⁵

Retirement

In about 1956 Dr. Alice Marsh became chairwoman of the Home Economics Department at Andrews University. She held that position until 1976, which seems to have been when she officially retired. However, she continued to engage in research and continued to be listed as a professor in the Home Economics Department until 1984.¹⁶

Dr. Frank Lewis Marsh died on July 14, 1992,¹⁷ which was 28 years to the day after her own father, Roscoe Uriah Garret, had passed away on July 14, 1964.¹⁸ When her husband died, Alice Marsh was 84 years old. She lived on another five years, passing away on July 26, 1997, in Berrien Springs, Michigan. Her funeral sermon was preached by Elder William Fagal. She left behind two adult children and four grandchildren.¹⁹

Legacy

During more than three decades on the faculty of three different Seventh-day Adventist institutions, Dr. Alice Marsh taught, researched, and mentored student researchers. Her research helped Seventh-day Adventists and the general public to better understand nutrition and showed how beneficial the Adventist diet is to the human body.

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NOTES

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