

Philip E. Nelson

Purdue '56

Oxford Cup Roll No. 084

September 22, 2018 | West Lafayette, Indiana

Philip E. Nelson, *Purdue '56*, was initiated into the Beta Mu Chapter on Oct. 10, 1953, as Roll No. 824. Born in Morristown, Indiana, he attended nearby Purdue University, where he earned a bachelor's degree and a doctorate.

In his youth, Nelson helped during planting and harvesting seasons in his family's tomato canning factory – the Blue River Packing Company. At age 15, he won a 4-H award for the 24 perfect tomatoes he had entered in competition at the Indiana State Fair. For this accomplishment, he was given the title “Tomato King.”

After obtaining his bachelor's degree, Nelson returned to the farm and canning operation before eventually earning his doctorate from Purdue in 1967. The dean of the College of Agriculture, Earl Butz, who later served as U.S. secretary of agriculture under Presidents Nixon and Ford, offered him a tenure-track faculty position, leading to a nearly 50-year career at the university.

In the 1970s, Nelson traveled to India to study food spoilage, which at the time affected 50 percent of all food produced in the country. He began exploring ways that technology could be used in developing countries to preserve food for domestic distribution and consumption, and for export and sale overseas.

In pursuing his goals, Nelson accomplished what had not been done before: successfully bringing together crucial aspects of the aseptic processing system — parts of which already existed and parts of which he discovered, designed or modified during his research — that are used today across the globe.

These advances have benefited developing countries by reducing postharvest waste and providing an inexpensive packaging and shipping system for importing and exporting food stuffs. Humanitarian feeding programs funded by the U.S. Department of Agriculture and managed by Land O'Lakes since 2000 have provided aseptically packaged milk and biscuit products as part of school nutritional programs in the Philippines, Vietnam, Indonesia, Pakistan and Bangladesh. Because of Nelson's work, by 2005 in the Philippines less than 0.2 percent of the school-feeding products were lost.

His revolutionary technology was also used to bring potable water and emergency food to survivors of the 2004 tsunami in Southeast Asia and to victims of Hurricane Katrina in 2005.

In addition to his scientific discoveries, Nelson has also had an enormous impact in educating food scientists by building one of the largest and most recognized food science departments in the world at Purdue.

For his outstanding achievements, Nelson has come to be recognized as the leader of modern food science and technology. Chief among his numerous awards is receipt of the 2007 World Food Prize – an award created by Nobel Peace Prize winner Norman E. Borlaug and often called the “Nobel Prize for Agriculture.”

Also in 2007, former Indiana Governor Mitch Daniels announced the creation of the Philip E. Nelson Innovation Prize, recognizing outstanding Hoosier scientists for their discoveries, research and inventions. And in 2010, Purdue University honored Dr. Nelson's legacy by rededicating its campus Food Science Building as the Philip E. Nelson Hall of Food Science.

He has served appointments to the U.S. government, including to the USDA National Agricultural Research, Extension, Education and Economic Advisory Board; USDA Specialty Crops Committee; and the USDA Board on Agriculture and Natural Resources.

Nelson has served as professor emeritus of food science at Purdue since retiring from full-time work in 2010. He lives in Pellstone, Michigan, with his Beta Sweetheart, Sue.