D. Howard Doster joined the Purdue faculty as an Extension Farm Management Specialist in 1968 after earning his doctoral, master’s, and bachelor’s degrees in agricultural economics from The Ohio State University. He was well-known for his work in Extension, as one of the founders and previous heads of the Purdue Top Farmer Workshop, and for coordinating the Indiana Farm Management Tour for more than 20 years.

Howard and 40 colleagues started the first Purdue Top Farmer Crop Workshop in the late 1960’s. He helped develop the machinery and tillage budgets and initiated the idea of farmers using the workshop’s linear program computer budget to test four kinds of changes: crop mix, machinery size, tillage system, and farm size. He coordinated 250 Top Farmer Workshops on three continents helping 7,000 farmers interpret 25,000 farm budgets. He presented his 7-minute machinery economics speech emphasizing timeliness, use of big machinery, test before you invest, and associating with positive thinking people 900 times in seven countries. He helped create three 27-minute movies sponsored by Allis Chalmers, John Deere, and International Harvester. At the 2000 Top Farmer Workshop, Howard and 40 colleagues hosted a record number of farmers from 13 states.

Throughout his career, Howard co-authored extension and research articles with 43 university colleagues, including annual crop budgets and influential papers on land rent, tillage economics and no-till long before it was generally accepted. He prepared input price prospects for the department's annual Outlook program. In 1983, he authored a paper where the term "site-specific farming" was first used.

He also won numerous awards including the Purdue Agricultural Alumni Association’s Certificate of Distinction, the Indiana Extension Specialist Career Award, and the Purdue Agricultural Economics Department’s Career Distinguished Service Award. He earned titles of Accredited Farm Manager and Accredited Agricultural Consultant from the American Society and was an Indiana Prairie Master Farmer. Doster was also honored as a Kentucky Colonel for helping start the
Kentucky Chapter of the American Society of Farm Managers and Rural Appraisers while serving as secretary of the Indiana Chapter.

But what was most important for Doster, was his passion for teaching others. Since 1975, Howard and Barbara worked as peer advisory couple coaches helping farm couples in eight states make decisions on how to solve multi-generation problems and opportunities. Howard also taught both owners and tenants how to keep their leases current with current economic conditions and inform crop farm operators on the importance of timing by giving them his well-known "Test before you Invest" speech. While at Purdue, Howard taught six classes, including a senior class, "How to Go Home and Start Farming with Dad." He co-authored three high school texts on entrepreneurship. He created and coordinated 20 annual Farming Together Workshops, coordinated the farm records program and the state farm management tour, was Purdue chapter co-founder and president of Gamma Sigma Delta, and was advisor for Alpha Zeta. He was a senior faculty fellow at Shreve Hall and coached the 1983 Purdue women's softball team to its best ever record.

Howard retired from Purdue University in 2001 and was named a Professor Emeritus in the agricultural economics department. However, even after his retirement, Doster would maintain his ties with Purdue Agriculture. Doster never missed a Top Farmer Workshop nor the Purdue Agriculture Annual Fish Fry. Not once. The year 2020 marked the 52 time Top Farmer has been held and Doster proudly attended all of them. He also volunteered at all of the 53 fish fry’s.

With his wife Barbara, former Director of Undergraduate Programs in Purdue's School of Management, he helped their four children and spouses attend 24 colleges and earn 15 degrees, including seven from Purdue. One son was recognized as a Distinguished Purdue Agricultural Alumnus.