

Ross Maynard Welch

Dr. Welch is a Lead Scientist and Plant Physiologist employed at the USDA-ARS, U.S. Plant, Soil and Nutrition Laboratory located in Ithaca, NY. He has a courtesy faculty appointment (Professor of Plant Nutrition) within the Department of Crop and Soil Sciences at Cornell University and is a Fellow of both the American Society of Agronomy and the Soil Science Society of America. Dr. Welch's research is directed at improving the nutritional quality of food crops for humans using sustainable food-based system approaches. His Laboratory's mission is to closely link agricultural production to human health and nutrition issues. His current efforts focus on improving the bioavailability and density of limiting micronutrients (iron, zinc, boron, vitamin A, etc.) and calcium, and reducing toxic heavy metals in edible portions of important food crops. He has cooperative international research programs in various nations and cooperates with several CGIAR Centers including IFPRI, CIAT, CIMMYT, IITA, ICRISAT, CIP, ICARDA and IRRI in an international project, HarvestPlus. This project is directed at increasing the bioavailable micronutrient (iron, zinc, iodine, selenium and provitamin A carotenoids) density of staple plant foods (e.g., rice, wheat, maize, beans, sweet potato and cassava) through plant breeding and genetic modification to enhance human health especially in resource-poor families in developing countries. In 2003, he was the recipient of the prestigious Outstanding Senior Scientist of the Year Award given by the USDA, Agricultural Research Service, and is a Fellow of both the Soil Science Society of America and the American Society of Agronomy.