AWARDS

Presented at the 2017 General Meeting of the ASSBT

> Hyatt Greenville Greenville, S.C.

February 27 - March 2, 2017

Thomas K. Schwartz Savitsky Memorial Award American Society of Sugar Beet Technologists, 2017

Thomas K. Schwartz was raised on a sugar beet farm in northern Wyoming and received his Masters of Science degree from the University of Wyoming in 1977. After a short stint with the University and



some time with Union Carbide, Tom spent two years in Africa as a consultant for USDA's Agency for International Development.

Mr. Schwartz joined the Beet Sugar Development Foundation (BSDF) in 1988 and served as its Executive Vice President and Secretary/Treasurer until his retirement in December of 2016.

During his tenure with BSDF, he oversaw the coordination of the BSDF funded research projects to the United Stated Department of

Agriculture, Agricultural Research Service and the various universities involved in sugar beet research. Mr. Schwartz participated in many National Program Reviews and planning meetings as well as serving five years on the U.S. Secretary of Agriculture's Joint Council on Science and Education.

From 1996-1998, Mr. Schwartz served as Editor for the book entitled "Sugar Technology" which was published by Barten's in 1998. This book is now used world-wide as the text book of sugar processing. Mr. Schwartz worked closely with sugar beet seed companies, sugar beet cooperatives, sugar beet growers and Monsanto on the development of Round Up Ready sugar beet production. He worked with Mr. Luther Markwart, Executive Vice President of American Sugar Beet Growers Association, and the industry to conduct the first large scale trial with Round Up Ready beets in 2006 in cooperation with The Amalgamated Sugar Company. A second large scale trial was conducted in Michigan in 2007 and this led to the adaption of Round Up Ready technology. Mr. Schwartz and Mr. Markwart led the introduction and defense of this technology and acted as Co-Chairs of the Sugar Industry Biotech Council (SIBC).

Mr. Schwartz has organized and overseen 13 Biennial Meetings of American Society of Sugar Beet Technologists (ASSBT) with his first being in 1989 in New Orleans. He is a member of the International Institute of Sugar Beet Research (IIRB) as well as the European Society of Sugar Beet Technologist (ESST). He has attended and presented papers at many of these meetings.

It is for his 27 years of dedicated service to the sugar beet industry through the Beet Sugar Development Foundation and the success of his many endeavors along the way that Thomas K. Schwartz was honored as a Savitsky Memorial Award winner at the 39th Biennial Meeting of ASSBT in Greenville, SC in 2017.

Luther Markwart Savitsky Memorial Award American Society of Sugar Beet Technologists, 2017

Mr. Luther Markwart has served the United States sugar beet industry in Washington, D.C. for 35 years representing the nation's sugar beet growers as the Executive Vice President of the American



Sugar Beet Growers Association. He has been instrumental in the design, promotion and passage of sugar provisions in the past seven farm bills. He has also served as an official technical advisor for sweeteners for several Secretaries of Agriculture and U.S. Trade Representatives through the negotiation of all of our nation's international free trade agreements.

Luther was born and raised on a sugar beet farm in Michigan, is a graduate of Michigan

State University, and represented Michigan and Ohio growers from 1979 until he moved to Washington D.C. in 1982.

Mr. Markwart's outstanding work and leadership in the development and commercialization of biotechnology in the U.S. and Canada, is undeniably one of his greatest accomplishments. He co-chaired the Sugar Industry Biotechnology Council that strategically developed a comprehensive and cohesive plan for the sugar beet industry to be successful in adaption of biotechnology. The introduction to biotechnology in our sugar beet industry would never have happened the way it did if not been for the leadership and guidance of Luther Markwart. He used the information obtained from countless individuals from every aspect of the sugar industry and the biotech community to successfully transition into biotechnology for sugar beet production. He is recognized and consulted worldwide by beet and cane leaders who are monitoring or pursuing biotechnology in sugar.

Luther is a stickler for details and a tireless worker. He has worked incredibly hard throughout the development, deregulation, introduction, and litigation phases of Round Up Ready technology for all growers. He was instrumental in the 2016 development, passage and implementation of the federal biotech disclosure bill that provided for federal preemption of state labeling laws. He was front-line at the beginning of the technology revolution and has been vigilant since its deregulation. We are forever grateful for his efforts.

The American Society of Sugar Beet Technologists is honored to recognize Luther Markwart as a 2017 recipient of the Savitsky Memorial Award, the most prestigious award of the sugar beet industry.

Meritorious Awards

Dr. William Wintermantel - William Wintermantel was awarded the Meritorious Service Award at the 2017 ASSBT meeting held in Greenville, SC. In September of 1998, Dr. Wintermantel joined USDA-ARS in Salinas, CA as a plant pathologist. Since 2001, he has been project leader for the virology research program in Salinas. His research has focused on viruses affecting sugar beet and vegetables, specifically virus epidemiology, vector transmission, molecular and biological characterization of plant virus and virus-vector-host plant interactions. Dr. Wintermantel conducted extensive studies on the epidemiology and transmission of viruses especially Beet curly top virus and whitefly-transmitted viruses in the genus Crinivirus. His curly top work has focused on determination of factors influencing strain emergence and involves close interactions with both the sugar beet and tomato industries. In addition to sugar beet research, Dr. Wintermantel is a world expert on diagnosis, epidemiology, transmission and management of whitefly transmitted viruses, co-directed sequencing of the whitefly genome and is using gene expression studies and RNAi strategies for control of whitefly. Throughout the years, Dr. Wintermantel has showed strong respect for the sugar beet industry and has been responsive to needs of the industry. His research has been instrumental in the understanding of Beet curly top virus and Beet necrotic yellow vein virus.

Dr. Karen Fugate – Dr. Fugate has been actively involved in research related to sugar beet metabolism and post-harvest storage since joining USDA-ARS in 1998. As a leader of the only research program in the U.S. investigating sugar beet physiology, she has actively investigated the physiological, biochemical and molecular factors affecting sucrose accumulation during production and sucrose detection during storage. Dr. Fugate has knowledge and expertise that she uses to create research programs that investigate physiological and metabolic factors affecting sucrose accumulation and retention in sugar beet roots during production and storage. Dr. Fugate was the first to differentiate between native and pathogen-derived enzyme activities and demonstrated that increases in acid invertase, during storage, were largely due to pathogen-derived activities. She was also the first to recognize the potential of inducible defense responses as a viable protective mechanism for sugar beet storage, providing the industry a new tool for protection of the crop from storage rots. Dr. Fugate has become the primary source of information nationally on sugar beet storage issues.

Honorary Membership

Dr. John Lamb – As a retired Professor of Soil Science with the University of Minnesota, Dr. John Lamb became an Honorary Member of ASSBT at the 2017 Biennial Meeting. Dr. Lamb began his career in 1984 when he accepted a position as Soil Scientist at the University of Minnesota Northwest Research and Outreach Center in Crookston, MN. Early in his career, Dr. Lamb was involved in sugar beet fertility research in the Red River Valley. After accepting a position with the University of Minnesota, he remained active with sugar beet research both through the Sugar Beet Research and Education Board and with his collaborative fertility research with Southern Minnesota Beet Sugar Cooperative. During his 32 years being involved with sugar beets, Dr. Lambs' efforts have made a tremendous impact on our sugar beet industry.

Dr. Larry Campbell – Dr. Campbell has been actively involved in research related to sugar beet root maggot resistance and postharvest storage since joining USDA-ARS in 1978. As a leader of the only research program in the world developing sugar beet root maggot resistance germplasm and one of the pioneers in research evaluating the impact of sugar beet diseases on sugar losses in storage piles, Dr. Campbell has provided the sugar beet community with high-impact research. His research has increased the profitability of the North American sugar beet industry. Dr. Campbell has been a research geneticist for nearly 40 years and has released forty-two germplasm lines and five genetic stocks during his career.

40-Year Award

American Crystal Sugar Company

| Robert Kasprowicz | Gary Phelps |
|-------------------|-------------------|
| Mark Muhonen | Timothy Gunnerson |
| Don Burkel | Tommy Klemetson |
| Stuart Hesby | Ellis Arntson |
| William Peterson | Martin Flores |
| Mary Larson | Mike Sink |
| William Carlin | Michael K Johnson |
| John Wagar | Russell Brown |
| Robert Reed | Sylvester Novak |
| Mary Johnson | Sande Hodge |
| Charles Hotvedt | Gary Kopperud |
| Beverly Danielson | Tim Gust |
| Lee Norman | Terry Biewer |
| Robert J Olson | Bruce Boyer |
| R Curt Hansen | Kenneth Rossol |
| Earl Gorsuch | |

Amalgamated Sugar Company

David M Elison Jerald W Anderson Gregory D Perdue Michael M Kearney Steven Knopp Gonzalo Martinez Larry Henderson Kevin Asay Elizabeth Sheridan Neal A Davis Marie Radtke

Michigan Sugar Company

Bob Drysdale Neal Myers Gary Westbrook

Minn-Dak Farmers' Cooperative

Richard Leinen Terrance Steffens Wayne Colby John Nyquist Craig Erickson Brent Muehlberg Donald Facey Myron Ehlert

Southern Minnesota Beet Sugar Cooperative

Arthur Mendoza Bradley Kurtz