The recent death of Dr Gerald David Thompson on the 18th April 2014 marked the end of an era and the closing chapter of one of the most distinguished careers in the South African and the International Sugarcane Industry. Gerald was born in Durban, South Africa on the 3rd March 1925. He received his main education at Durban High School where he matriculated at the age of 16. After serving as a wireless operator/air gunner with the SAAF 15 Squadron in North Africa and Italy during the 2nd World War, Gerald worked for a few months during 1946 for Reynolds Bros sugar estates on the south coast, as well as the Experiment Station at Mount Edgecombe, now called the South African Sugarcane Research Institute (SASRI). This brief initial exposure to the sugar industry from the factory to field operations inspired Gerald to follow a career in the sugar industry.

He enrolled for a BSc degree in Chemistry at the Louisiana State University that is today Internationally known for its Audubon Sugar Institute. Gerald excelled in his studies and recorded the highest-grade
average ever achieved by an undergraduate in the College of Chemistry up to that time.

Following his LSU degree and gaining some factory experience in the USA, Gerald returned to South Africa in 1950 to join Reynolds Bros, initially as factory chemist for three years at the Sezella mill, followed by two years as agricultural chemist on the Esperanza Estate, also situated on the south coast of Natal, South Africa. In 1955 Gerald joined Illovo Sugar Estate where he worked for four years as an Agronomist and was instrumental in establishing a number of 3x3x3 NPK factorial trials as part of the Experiment Station’s program to correct widespread potassium deficiency in the industry. The trials at Illovo Estate were situated on mainly humic latosol soils and produced some of the biggest reported responses to applied K that were recorded at the time. Gerald was appointed to Field Manager in 1959 followed a year later by Factory Manager.

Given his practical experience in both the milling and agricultural sectors of the industry and his bent for solving problems, Gerald joined the Experiment Station in 1961, at the beginning of a decade of expansion in research activities that included the creation of a dedicated agronomy department. Under Gerald’s guidance this became the dominant technological research activity for the ensuing fifteen years. Agronomic activities that were initiated by Gerald and which have led to significant improvements in sugarcane production, included weed control using herbicides, trashing and his work on fertilizers that laid the foundations for calibrating soil test procedures and economically based fertilizer recommendations. For his work on fertilizers, Gerald was honored with silver and gold medals by the South African Fertilizer Society, as well as honorary membership of the South African Association for Crop Production.

For his early work on trashing, Gerald obtained his PhD in 1965 with a thesis entitled “Mulching of sugarcane”. Data for his thesis were collected from a number of places including the famous burning and trashing trial (BT1) that is now, after 75 years, regarded as the longest running sugarcane trial in the world. Dr Thompson was the first person to obtain a PhD using data from this trial. Since then a number of other staff members and students have obtained masters and doctoral degrees using data from the trial.
Another important milestone during these early years was the creation of the sugar industry’s Agronomists’ Association. Other pioneering innovations initiated by Gerald were the use of field scale lysimeters and the neutron probe to estimate the water requirements of sugarcane and growth analysis techniques to study the pattern of sucrose accumulation in the sugarcane plant. This work laid the foundation for cost effective irrigation scheduling and the calibration of crop models for simulating cane growth under a range of climate, soil and water supply conditions.

With his appointment as Assistant Director in 1971, followed by the position of Director in 1975, Gerald nurtured further developments that included the La Mercy mechanization and conservation project in 1974, the Agricultural Training Services in 1976 and the Biological Control Unit in 1978. Probably the most significant advance during this period was the expansion of the Extension Service to 15 Extension Specialists, with each specialist responsible for promoting technology transfer to about 200 growers in each district. Not only was there a marked improvement in the adoption of improved agronomic practices, but also of new cultivars and of pest and disease control practices. This period also saw the introduction of the Specialist Advisory Service, with over 8300 requests for professional advice that were received from growers and acted upon between 1971 and 1991.

The early 1980’s, under Gerald’s guidance, saw the introduction of a Co-ordinated Research Project Program that addressed industry wide productivity problems and enabled young up and coming scientists, from different disciplines, to work together with their senior counterparts on a number of projects. The first of these was the Weak Sands project that was established in 1983, that highlighted nematodes as a major factor limiting sugarcane growth on our coastal soils. There were a number of other projects that followed and the data were used to compile the Mount Edgecombe Research Reports, more popularly catalogued as the MERR collection.

In his 33 years of dedicated service to the South African Sugar Technologists Association as member and Council member, Gerald contributed 23 papers, served as Editor and President from 1977 to 1981 and was awarded the Association’s Gold Medal for his outstanding contribution to sugar technology. His service to the
International Society of Sugar Cane Technologists has also been distinguished, having attended nine congresses between 1965 to 1992, and holding various positions as Vice-Chair and Chair of the Agronomy Section, in the 1970s, as Regional Vice-Chair in the 1980s and as Member of the Executive Committee between 1986 to 1992, during which he was also the Chair of Technical Programme Committee. In recognition of his dedicated services, he was made Honorary Life Member in 1992.

From 1979 to 1987 Gerald served as advisor to the Colombian sugar industry in the establishment of their own sugar Experiment Station for which he was also awarded a Gold medal for meritorious service.

After his retirement in 1990, Gerald held many prestigious appointments, including advisor to the agronomy research programme of Copersucar Technology Center in Piracicaba, Brazil, and consultancies in Cuba, South Africa and other parts of Africa.

Gerald’s memorial service was held at Christ Church on the 30th April 2014 and attended by a large group of mourners to pay their respects to this remarkable man for his dedicated service and advances in scientific knowledge to the South African and International Sugar Community. In many ways Gerald will continue to be an inspiring role model, for those who had the great pleasure and honour of knowing and working with him.

The Chair and Members of ISSCT Executive Committee and Council would like on behalf of all the members to convey their heartfelt condolences to Gerald’s daughter Mary Lou and his two sons, Wayne and Gary, and their families.

Prepared by Jan Hendrik Meyer in collaboration with the ISSCT Secretariat May 2014