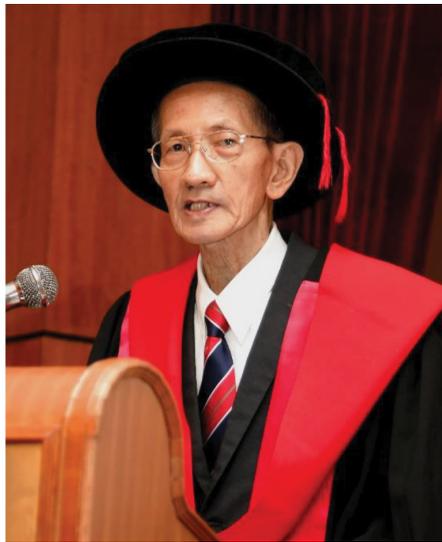


Tributes
In Memory of the Life of
Professor Emeritus
Dr. CHIN Hoong-Fong



*Life is like making tea. Boil your ego.
Evaporate your worries. Dilute your sorrows.
Filter your mistakes, and get a taste of happiness.*

Professor Emeritus Dr. CHIN Hoong-Fong

To Professor Emeritus Dr. Chin Hoong-Fong, a teacher, scientist and writer with a life-long love for seeds, we pay tribute in this article. Professor Emeritus Dr. Chin passed away peacefully on 18 March, 2018. He was 83 years old. A funeral service was held for him on Friday morning, 23 March, 2018 at the Church of St. Francis Xavier, Petaling Jaya. Prof. Chin is survived by his sons, Colin, Simon and Vincent, grandchildren, Patrick, Shireen, Karen, Lucas and Sebastian, sister, Mrs Saw and brother, Chin Kim Thong.

SEEDS OF FRIENDSHIP

Seeds of friendship worth more than gold
Sown in the hearts of young and old
Appreciated and properly stored they survive
In fertile or even poor soil they thrive

The world over these seeds we sow
Over land and sea they may go
With phone and email we will not be apart
Such true friendship remains in our hearts

Strong bonds of friendships will withstand stress
Though trials and endurance put us to test
But the fruits of joy and sorrow we nurture and share
Bring happiness and satisfaction beyond compare

Through good and lean years, friends by our side will stand
Active, able and strong, a helping hand they will lend
In twilight years, fragile and senile, we cannot fend
Only true friends remain till the end

H.F. Chin

The authors of these tributes are greatly honoured by this task and are privileged to be assigned the duty of collating precious memories of the life of this renowned seed scientist who pioneered the storage of recalcitrant seed in the 1970s. A true icon of Universiti Putra Malaysia (UPM), Chin Hoong-Fong was a great teacher who taught and trained over 10,000 graduates in agriculture over 58 years of dedicated teaching in UPM, his only place of work for the entire span of his

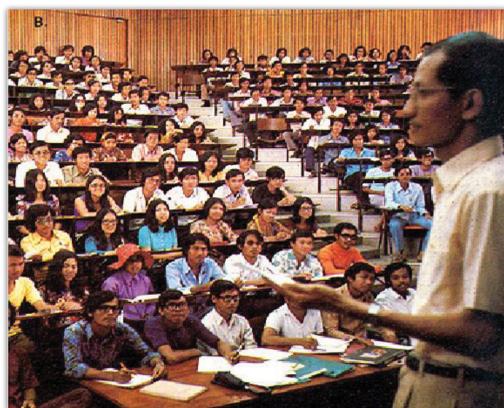
working life. He spent his lifetime promoting agriculture and seed science, sharing his vast knowledge in over 100 research papers and 13 books. He was also an avid photographer, artist and poet.

The Early Years

Chin Hoong-Fong was born in Kuala Lumpur in 1935 and grew up on a two-acre plot of land along Jalan Ampang in Kuala Lumpur, Malaysia. That land is shorter than a five-minute drive from the Petronas Twin Towers today. He started his schooling at the late age of 11 at the Methodist Boys School after World War II. At school, he joined the Science Society, and what he learnt there planted in him an early interest in agriculture. In 1955, after completing Form Five, he embarked on an arduous two-week journey to Australia. It began with a train ride to Singapore, then a cargo-boat ride to Freemantle and finally, a transcontinental train ride to Melbourne. He did his matriculation at the University High School in Melbourne and then took up agricultural science in the University of Melbourne, graduating with a Bachelor of Agricultural Science in 1960. In the following year he started work as a lecturer at the College of Agriculture Serdang, known today as Universiti Putra Malaysia.

Teacher and Writer

Prof. Chin worked for 58 years in UPM, from 1960 to 2018, serving in the last 23 years on voluntary basis. It was indeed ironic that he should have spent his entire working life at the institution as he had never applied for the position of lecturer at the College of Agriculture. He is known to have recollected, “I was on my way to report for duty at the Department of Agriculture but was sent to the College to be a lecturer instead” (Bioversity International, 2015).



Teaching in 1961 at the College of Agriculture Malaya – with 75 students

While working, he obtained his Master’s Degree and PhD in Agricultural Science from the University of Melbourne. In 1973, he returned to serve in UPM. He was appointed Associate Professor in 1975, Professor in 1981 and Professor Emeritus in 1996 by UPM.

In recognition of his contributions to the University of Melbourne and international agriculture, Prof. Chin was awarded the Honorary Degree of Doctor of Agricultural Science by University of Melbourne in 1994. It is indeed a rarity for anyone to obtain four degrees in the same discipline from the same university as Prof. Chin did. Indeed, at the award ceremony in Melbourne, Prof. Chin declared it was the proudest moment and happiest day of his life.

Prof. Chin was also known to be a prolific writer. He wrote or edited 13 books related to seed conservation, horticulture and general agriculture. Among the more significant of these are *Agricultural and Horticultural Seeds in Malaysia* (1969), *Seed Technology in the Tropics* (1977) and *Recalcitrant Seeds* (1980). He also wrote books of general interest such as *The Hibiscus: Queen of Tropical Flowers* (1986), *Malaysian Flowers in Colour* (1977), *Malayan Fruits in Colour* (1980), *Malaysian Trees in Colour* (1992) and *Malaysian Vegetables in Colour* (1999). He was also an avid gardener and photographer, and he combined his love for nature and his creativity in poems he wrote in his free time that were inspired by his passion for plants and belief in people. In 1986, he helped to produce three series of stamps on Malaysian flowers, fruits and agricultural crops.

Scientist



CHIN Hoong-Fong in his lab with two of his students in 1963

Prof. Chin's main interest was in seed science and technology, and he was particularly keen on discovering more about the storage and conservation of recalcitrant species. He lived his academic life and explored his scientific instincts guided mainly by his belief in searching, sharing and saving. By searching,

he meant the quest for knowledge, which he acknowledged was a life-long process. Sharing, he believed, was akin to the act of sowing seeds of knowledge and dispersing and disseminating those seeds by imparting knowledge and skills to others. Finally, when he spoke of saving, he was referring to the conservation of plant genetic resources via seed storage. Prof. Chin's adherence to these principles are reflected in his numerous publications and in his work, which was devoted to developing various methods of seed storage and the cryopreservation of plant genetic resources.

His life's work received national and international recognition from various national and international bodies, and he was appointed to many important committees based on his contribution to agricultural science. For instance, he was Chairman of the Technical Committee



ISTA Congress in Edinburgh, 1989 – Educational tour

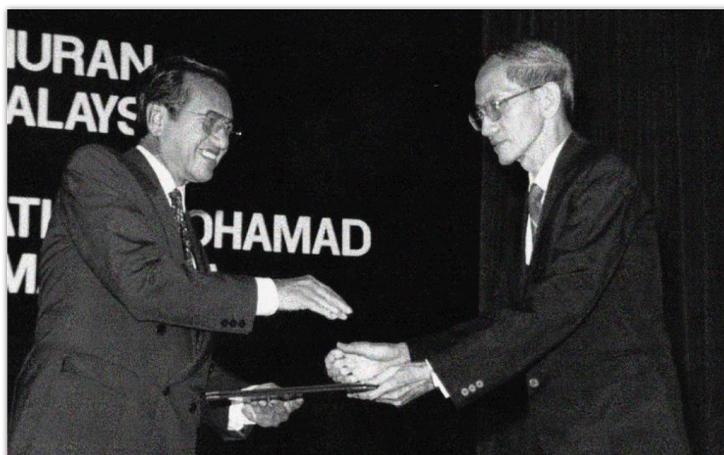
on Planting Materials of SIRIM and Chairman of the Technical Committee on Seed Storage of the International Seed Testing Association (ISTA) for nine years. He contributed extensively to Bioversity International. Bioversity International is a global research-for-development organization that delivers scientific evidence, management practices and policy options to use and safeguard agricultural biodiversity to attain sustainable global food and nutrition security. Bioversity International and Universiti Putra Malaysia have a long and successful history. In 2001, UPM became the first public education institution in Malaysia to partner with Bioversity to publish a field genebank management guide that is still the go-to document for field genebank managers worldwide. His history with Bioversity International dates back to the 1980s, when he served two terms as member of the Board of Trustees of the organisation, then called the International Board on

Plant Genetic Resources (IBPGR). More recently, he sat on the committee of Svalbard International Seed Bank, a bank established in an attempt to ensure against the loss of seeds in other genebanks during large-scale regional or global crises.

The scientific community in Malaysia will also remember him for the National Seed Symposium, which he chaired and organised. He first initiated the National Seed Symposium in 1976 i.e. 42 years ago, when the seeds for the establishment of a National Seed Association were sown. His dream became a reality in 2008 when the National Seed Association of Malaysia (NSAM) was born. Till then, he had chaired and organised five symposia, which are now a biannual event. NSAM, founded by Prof. Chin, today plays a very important role in Malaysian agriculture by providing input on seeds and planting material. Prof. Chin represented NSAM in the National Seed Council, a committee within the Ministry of Agriculture and Agro-Based Industry.

Honours and Awards

Prof. Chin was Professor Emeritus at the Department of Crop Science, Faculty of Agriculture, UPM from 1996. He was also an Honorary Research Fellow of Bioversity International from 1997. For his long service and contribution he received the *Johan Setia Mahkota* (JSM) from the Yang Dipertuan Agong in 1990. In 1994, he was conferred the honorary degree of Doctor of Agricultural Science by the University of Melbourne, his *alma mater*, and was appointed Foundation Fellow of the Academy of Science Malaysia in 1995 by the Ministry of Science, Technology and Environment. For his contribution to seed science and technology he was presented a special award by the Asian Pacific Seed Association (APSA) by the then former Minister of Agriculture, YB Tan Sri Muhyiddin Yassin, at the Asian Seed Congress 2006. More recently, in the year 2015, the Incorporated Society of Planters (ISP) awarded him the Fellowship of the ISP (FISP), an award given in recognition of outstanding meritorious service to the plantation industry.



CHIN Hoong-Fong with former Prime Minister of Malaysia, Tun Dr. Mahathir Mohamad in 1991

He was also appointed one of 50 ASM Foundation Fellows in 1995 by the Ministry of Science, Technology and Environmental Sciences under the Biological, Agricultural and Environmental

Sciences. The appointment was made in view of his outstanding achievements and contribution to the nation through his research especially into seed science and technology and through his teaching. His involvement in ASM was seen in his participation in the ASM Bioersity Committee (2001-2002) and the ASM Publication Committee (2001-2002).

Personal Reflections

O.M. Lai

Department of Bioprocess Technology, Faculty of Biotechnology & Biomolecular Sciences, Universiti Putra Malaysia

I had the privilege of knowing Prof. Chin as a young PhD student in the early 1990s. He was a gentleman of small stature, frail built and soft spoken. Over the past two decades, we formed a strong bond through our shared love for writing and food. He was always my number one fan and critic when it came to perfecting the art of baking and cooking our local Malaysian delicacies, which he loved. To many, he was a prominent writer and renowned seed scientist with a long, illustrious career. To me, he was a simple man who loved the simple things of life such as gardening, photography and listening to the old sentimental songs of yesteryears and who served UPM and Malaysia unselfishly.

Isaac Newton, in his letter to Robert Hooke in 1676 wrote, “If I have seen a little further than others, it is by standing upon the shoulders of giants.” Prof. Emeritus Chin Hoong-Fong may not be your idea of a giant but he made ‘giant’ contributions to the field of agriculture and in particular, seed science. It is now for us and for future generations to stand upon the shoulders of this gentle ‘giant’, valuing and celebrating his life’s work, to push even further the boundary of tropical agriculture. I will miss him. ▶

U.R. Sinniah

Department of Crop Science, Faculty of Agriculture, Universiti Putra Malaysia

It is with great sadness that I write this reflection on my beloved teacher, mentor and godfather. I have known Prof. Chin Hoong-Fong since 1988 as a young student at the Faculty of Agriculture. Since then, particularly 1998 onwards, we worked together on various occasions due to our common interest in seeds. I am lucky to have had someone take me under his wing upon my return from the UK with a Doctorate in Seed Science and Technology. Early days in career development can be tough, but I was well guided by Prof. Chin. Our major event together was the 3rd National Seed Symposium in 2003, where through the organising of this symposium I learnt that hard work is the only way to success. Subsequently, together we organised a total of nine symposia and established the National Seed Association Malaysia in 2008, of which I am the current President. He was a very simple man who contributed skill and knowledge selflessly. I am and will always be impressed by his ability to attract people. He had many friends and I guess his positive attitude towards life and his outgoing personality made him a memorable persona. My lunch dates with him will be the most missed appointments as it was almost a monthly event when we had vegetarian briyani and shared a cup of masala tea together. On each occasion, he never failed to bring with him an album to update me on this activities, one of which was his hobby, photography. The scientific community has lost a great man who displayed absolute passion for seeds and agriculture, but his inspirational pursuit of excellence will always be remembered and emulated by the many students he produced. ▶

Pertanika Community

With great sadness the death of Professor Emeritus Dr. Chin Hoong-Fong was announced on 18 March, 2018. The news of his passing has been hard to take for those of us who knew him for a long time — nearly 25 years: since the late 1990s. The *Pertanika* community are greatly saddened by this news. Prof. Chin Hoong-Fong was one of the founding Editors-in-Chief of *Pertanika*. For us, as a journal's editor, we could not have had a better role model than Professor Chin.

He was instrumental in the initial establishment of *Pertanika*, and the journal is indebted to him for its success today as a prestigious journal. Prof. Chin served as Editor-in-Chief of *Pertanika* from 1983-1996. Indeed, the seeds he sowed in almost 13 years at the helm have borne good fruit, seen in the strong reputation that the journal now enjoys under the dynamic leadership of current Chief Executive Editor, Dr. Nayan Kanwal. Prof. Chin worked tirelessly to build up *Pertanika* while serving at the same time as a researcher and lecturer at UPM. He was probably the most observant person we have ever known. He noticed everything.

The passing of Prof. Chin is an incalculable loss to the seed conservation, to the lay public and to his many admirers and friends. We extend our heartfelt condolences to his family, friends and colleagues. We will continue to mourn him for a long time. ▀



CHIN Hoong-Fong with his friends and some members of Pertanika editorial-team in February 2018 (latest picture before he passed away)

Nayan Deep S. KANWAL, FRSA, ABIM, AMIS, Ph.D.

Chief Executive Editor, Pertanika

The news of Professor Chin's demise was hard to believe and for days I still hoped that it was a mistake. The last time I received a message from him (about a week or two before he left us), he sounded upbeat and said he was in a hospital receiving treatment.

I first met Professor Chin in September, 1996, when I joined Universiti Putra Malaysia. In 2006, our former Deputy Vice Chancellor, Professor Abu Bakar Salleh, announced a publication drive for the University, giving me a challenge to reshape the *Pertanika* journal. I found myself named as the Executive Editor for the three journals and often consulting Professor Chin as one of the founding Editors-in-Chief who lead *Pertanika* with great commitment. I myself learned a lot in the process, not only on the technical skills of managing a journal, but also on being both firm and kind with authors. What has impressed me the most is the persuasive strength of his academic discourse.

Prof. Chin was extremely well-read, an incorrigible raconteur, an excellent scientist and a loyal friend. He enjoyed his work thoroughly, and found the dynamic environment of the university and the ethnic diversity of its staff and students delightful and refreshing. Hoong-Fong leaves behind a lasting legacy. He was down to earth and did not stand by ceremony, thus he did not demand any of the privileges that are sometimes associated with people of his distinction. This made him very approachable, and someone in whose presence one could be very comfortable.

That is what I know of him. His style was not to celebrate the status of his professorial knowledge but rather to share this knowledge and also to acknowledge his indebtedness to the academic community – his colleagues, his collaborators, and the diverse range of intellectuals who in one way or the other shaped his thinking and the direction of his academic work.

The objective of this Tribute is not only to honour a gentleman (CHIN Hoong-Fong) who gave a great deal to the scientific community in his region, but also to honour him for giving much to the *Pertanika* journals.

It was a great privilege having known and worked with him. He will be sorely missed. ▀

Alvin Kah-Wei Hee

Department of Biology, Faculty of Science, Universiti Putra Malaysia

I met Professor Emeritus Dr. Chin Hoong-Fong soon after I joined UPM in 2008. We often met for lunch and I never failed to join him at the Serdang Chinese New Year reunion dinner that he meticulously organised.

He was a good friend, colleague and mentor to me. He truly lived a meaningful life and impacted our lives in many ways. Family and friends were dearest to him and work was his passion. Today, we, Alvin, Suk-Ling, Shawn and Ryan Hee, have adopted a PET like the one he used to have – Patience, Endurance and Tolerance. We will sorely miss his wit and humour. Forever cherished and always in our hearts will you be, Prof. Chin! 📌



CHIN Hoong-Fong's last birthday cake on 21 February 2018

Riina Jalonen

Head, Malaysia Office, Bioversity International

The legacy of a life-long love for seeds

Searching, sharing and saving are the keys in my life. Searching to me stands for the quest for knowledge which is a life-long process... Sharing is to sow seeds of knowledge, dispersing and disseminating by imparting knowledge and skills to others. As I strongly believe sharing one's knowledge is a way of achieving immortality... Saving refers to the conservation of plant genetic resources via seed storage... I have a vision and dreams of miracle seeds to feed the world's future generations. – Professor Emeritus Dr. Chin Hoong-Fong.

One can't find better words for describing the life and contributions of the iconic seed scientist, Professor Emeritus Dr. Chin Hoong-Fong (1935-2018) than those of the man himself. They resonate with the passion and keenness of a world-renowned researcher, teacher, observer of life, writer and poet – someone, above all, who had exceptionally strong values and a vision for a better world and who devoted his life to finding ways to spread those values and make those dreams reality.

Prof. Chin served Bioversity International for almost 30 years as a Member of the Board of Trustees (1987-1992) and as Honorary Fellow and Honorary Research Fellow (1997-2018). These positions of trust were an acknowledgement of his significant contribution to seed science and technology and, thereby, to global food security.

One of Prof. Chin's dreams came true in 2008 with the establishment of the Svalbard Global Seed Vault in the Technical Committee of which he also served. The Vault celebrated its 10th anniversary in February 2018; today, it conserves more than 890,000 samples of seeds from almost every country in the world.

Another dream of Prof. Chin's that lives on and is now dreamt by thousands of other researchers around the world is that of a cryo-collection of crops, similar to the Svalbard Vault, but for the thousands of crop species whose seeds cannot be stored in a freezer. Seeds of many tropical crops and fruits such as coffee, coconut and mango do not tolerate drying and quickly lose their viability. Prof Chin pioneered in Malaysia, a method known as cryopreservation for conserving the invaluable genetic resources of such crops. This method allows storing of plant embryos or other tissue in ultra-cold temperatures in liquid nitrogen for almost indefinite periods so that they can be regrown into full plants when needed.

Thanks to Prof. Chin's knowledge and the wisdom that motivated him to share that knowledge with others, his legacy lives on for the benefit of current and future generations, just as he envisioned. His work is fulfilled; may his soul rest in peace. ▀

We invite you to take time to read his scientific works below:

1. Chin, H. F., & Yong, H. S. (1980). *Malaysian fruits in colour*. Kuala Lumpur, Malaysia: Tropical Press Sdn. Bhd.
2. Chin, H. F. (1977). *Malaysian flowers in colour*. Kuala Lumpur, Malaysia: Tropical Press Sdn. Bhd.
3. Chin, H. F., & Enoch, I.C. (1988). *Malaysian trees in colour*. Kuala Lumpur, Malaysia: Tropical Press Sdn. Bhd.
4. Chin, H. F., & Roberts, E. H. (1980). *Recalcitrant crop seeds*. Kuala Lumpur, Malaysia: Tropical Press Sdn. Bhd.
5. Chin, H. F., Enoch, I.C., & Raja Harun, R. M. (1977). *Seed technology in the tropics*. Serdang, Malaysia: Universiti Pertanian Malaysia.
6. Chin, H. F., & Yap, E. E. M. (1999). *Malaysian vegetables in colour*. Kuala Lumpur, Malaysia: Tropical Press Sdn. Bhd.
7. Chin, H. F. (1986). *The Hibiscus – Queen of tropical flowers*. Kuala Lumpur, Malaysia: Tropical Press Sdn. Bhd.
8. Chin, H. F., & Pritchard, H. W. (1988). *Recalcitrant seeds: a status report*. Rome, Italy: International Board for Plant Genetic Resources (IBPGR).
9. Chin, H. F. (1969). *Agricultural and horticultural seeds in Malaysia*. Malaya: College of Agriculture.

ACKNOWLEDGEMENTS:

Lai Oi Ming (*Professor Dr.*), Uma Rani Sinniah (*Professor Dr.*), Alvin Kah-Wei Hee (*Dr.*) & Riina Jalonen (*Dr.*)

PHOTO CREDIT: *Simon Chin & Nayan Kanwal*

I wish to sincerely thank all who contributed towards the writing of this tribute – **Nayan Kanwal**, *Chief Executive Editor, Pertanika*

All inquiries may be addressed to the Chief Executive Editor at nayan@upm.my.

