

Durian breeding in Thailand

Thai durian breeder Dr. Songpol Somsri creates new kinds of durians

By Karolien Bais



A life-long dedication to the 'King of Fruits' has brought the Thai horticulturalist Dr. Songpol Somsri world fame as a durian breeder. Ten new varieties have been born in the caring hands of him and his team at the Chanthaburi Horticultural Research Center.

Although the scientist lives and works in Bangkok, he often spends time at the traditional wooden house that his forefathers built in Phliu, a village near the Cambodian border. This is

where he was born 62 years ago in a family of fruit growers and where he has his own test plot with a thousand durian trees.

Dr. Songpol started studying fruit in 1977. He graduated in horticulture from Kasetsart University in Bangkok and continued for his PhD in fruit breeding and biotechnology at the University of Queensland in Australia. Back in Thailand, he started breeding fruit crops like durian, papaya, pomelo and citrus, and helped

to establish a 'Field Genebank' with a collection of 800 varieties of tropical fruits.

For thirty years he ran a durian breeding project. Now retired, he occupies the post of Senior Advisor in Plant Production and Senior Expert at the Department of Agriculture in Bangkok.

Patience and passion

It takes patience to develop a new hybrid of durian. Ten years go by before a fruit appears that can reveal what cross-pollination has achieved. Songpol Somsri has this patience. And the passion! Even after three decades of hybridizing, he is still excited to grab a knife and open the thorny husk. What will the flesh look like? Pale yellow, golden or orange? Is the texture creamy or crispy? How big is the seed? How strong is the smell?

At the time of our interview, the harvest of durian is in full swing, so Songpol Somsri is in Phliu. The day before, he has brought his yield of the Chanthaburi 3 variety of durian to the packaging house of his Chinese buyer. Today he has prepared a nice display of durian at his house, including an example of the Chanthaburi 1. This variety received worldwide publicity, as it lacks the distinctive odor that many people find repulsive.

Odorless durian

His endeavor to hybridize an odorless durian met with as much reproof as praise. Opponents argued that the beloved taste would vanish with the smell. Supporters were excited to have a durian without the stench that penetrates its wide surroundings, even with the husk intact.



That was eight years ago, and the scientist still smiles about the fuss, especially since not much later this variety earned him the highest Thai research innovation award. Dr. Songpol Somsri: *“The Chanthaburi 1 is only odorless for a few days after picking, which makes transport easier. Then a soft smell appears that still does justice to the taste. The Chinese are fond of it. They call it the ‘King Kan Yao’. About 80% of the produce goes to China. The rest goes to Indonesia, Malaysia and Singapore.”*

Farmers' hardship

His dedication to finding new hybrids of durian arose from the hardship of the farmers.

“In those days, during peak season the price of durian was so low that farmers could not survive, and started cutting down their durian trees to replace them with rubber trees. I wanted to solve this problem by creating varieties with different maturity. That would expand the time of harvesting, so the fruit would be available for a longer period and for a higher price. We also set out to produce varieties with different tastes and a longer shelf-life, in order to broaden its popularity and to promote export.”

Between 1986 and 1990 Songpol Somsri and his team of the Chanthaburi Horticultural Research Center evaluated over 7,600 durian hybrid seedlings, received from 55 crosses. The parents of these hybrids were: Chani, Kan Yao, Kradum Thong, Chomphu Si, Mon Thong, I Nak, I Lip, Kop Phikul, Kratoei, Kop Suwan, Phaung Mani, Nok Yip, Kop Ta Kham, Yam Mawat, Foi Thong, Kop Nasan, Kop Mae Thao and Thong Yoi Chat.

Dr. Songpol: *“Only about ten years after cross-pollination we were able to assess the quality of the outside and the inside. We evaluated the shape, the shell, the color of the thorns, the length of the stalk, the weight, the color, the taste, texture and smell of the flesh, the size of the seed, the fruit setting and the production.”*

By now the durian breeding project has delivered ten varieties, simply numbered from 1 to 10. Songpol Somsri: *“The Chanthaburi 1 to 3 have an early maturity, 4 to 6 have a moderate*

maturity, and 7 to 9 a late maturity. They have all been released. The numbers 10 and further are bred for their attractiveness.”

Thornless durian

Notwithstanding his retirement, Dr. Somsri has set himself two more goals. The first has to do with the commercially most important variety of durian, Mon Thong. *“A big problem is that Mon Thong is susceptible to the fungus Phytophthora. This fungus infects the roots and eventually the trees die. I want to produce a resistant hybrid.”*

His second ‘dream’ might turn out as controversial as the odorless durian: breeding a thornless durian. Without protective clothes and gloves, handling the thorny durian is a painful job. Eliminating the thorns would make them easier to harvest, pack and ship. Yes, he knows he will meet with resistance, as the name ‘durian’ derives from the Malay word for ‘spike’. “People say that without thorn the durian loses its symbol,” he says with a broad smile, signifying that he cannot be bothered.

