



The World Vegetable Center and the People's Republic of China

Some highlights of a growing relationship

WHO WE ARE

The World Vegetable Center is the leading international center focused on vegetable research and development. The Center's work is aimed towards reducing malnutrition and alleviating poverty in developing countries through improved production and consumption of safe vegetables. It was founded in 1971 as the Asian Vegetable Research and Development Center (AVRDC), and is headquartered in Taiwan.

Supported by a budget of about USD18 million in 2007 with approximately 340 professional staff, the Center operates from regional or national offices in Thailand, India, Tanzania, as well as from program offices in nine other developing countries.

The Center conducts research for development on vegetables; from breeding and production to their consumption and socio-economic impacts on communities. In addition to germplasm conservation and varietal development, other core activities include plant breeding using molecular technologies, studies on nutritional security and human health, safe and sustainable production

systems and crop protection, postharvest management, market opportunities, and income generation.

The Center has current or planned project work with more than two dozen countries in the tropics and subtropics. As the world's largest producer of vegetables, the People's Republic of China (PRC) is a natural partner with the World Vegetable Center and has had a long, productive, and pragmatic relationship with the Center.

Scientists from the PRC have attended our training courses, actively shared germplasm, conducted collaborative research on vegetable breeding and disease management, and contributed to our conferences. The collaborative work between the World Vegetable Center and the PRC has grown rapidly in recent years. As a result of the many long-term interactions between our scientists and senior managers and shared project work, the World Vegetable Center and the world's largest vegetable producing country are developing an ever richer and more productive relationship.



CURCUBITS

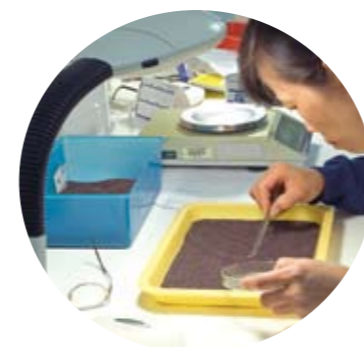
New cucurbit breeding program at the World Vegetable Center led by PRC scientist

In 2006, a scientist from the PRC was appointed to lead the new cucurbit breeding program at the Center's headquarters. This is the first appointment of a PRC scientist as an internationally recruited staff member and is an indication of not only his impressive credentials but the unique role that the World Vegetable Center plays as the only International Agricultural Research Center headquartered in the Chinese-speaking world.

GERMPLASM

Thousands of seed samples distributed to the PRC and received in return

The Center has a long history of sending vegetable seed to PRC research institutions and receiving germplasm to add to our global collection. Over 6750 samples of seed have been sent to more than 100 institutions in the PRC — including over 2700 samples of pepper and almost 2000 samples of tomato. PRC scientists in turn have sent over 1750 samples to the Center for safe-keeping, including almost 600 soybean accessions and more than 450 tomato accessions.



PEPPER

Developing high yielding chili varieties for the PRC

As an example of our diverse project work with the PRC, the Center has undertaken a project to develop new disease-resistant chili pepper varieties for selected countries in Asia. Our partners in the PRC are the Hunan Plant Protection Institute and the Hunan Vegetable Research Institute. The project included germplasm exchanges, training visits, and project workshops. Over 680 packets of disease-resistant pepper seed have been sent to our PRC partners as a part of the project.



COLLABORATION

Strengthening research collaboration and joint project work in the PRC

Over the last few years, our scientists have been invited to establish collaborative research programs with PRC scientists in 20 leading research institutions from Beijing, Harbin, Shenyang, Tianjin, Qingdao, Yangling, Shanghai, Nanjing, Chongqing, Changsha, Fuzhou, Guangzhou, Nanning, Kunming, and Urumqi.

In early 2007, for example, the Center partnered with the Plant Protection Research Institute, Guangdong AAS (Academy of Agricultural Sciences), to submit a research proposal for the "Introduction and utilization of disease-resistant germplasm of tomato and eggplant" to the International Science and Technology Cooperation Fund of Guangdong Province, which was approved recently.

VISITS

The largest number of international visitors to the World Vegetable Center's headquarters are now from the PRC

The number of visitors to the Center's headquarters from the PRC has been growing rapidly over recent years. In 2006, visitors from the PRC constituted the largest group of international visitors to the Center (97 people); and the first visit ever was made by representatives of the Chinese Academy of Agricultural Sciences to the Center's Regional Center for Africa. Major groups to visit the Center's headquarters in 2006 included:

Professors from the Institute of Vegetables and Flowers of the Chinese Academy of Agricultural Sciences (CAAS), Beijing Vegetable Research Center, Nanjing Agricultural University, the Vegetable Research and Development Center, Hubei AAS, and Huazhong Agricultural University; **Mayors and Politburo members** from Guangdong and Hubei provinces; **Agronomists** from the Beijing Vegetable Society and Qingdao International Seed Co., Shandong Province; **Senior managers**, including the Directors from the Beijing Agricultural Council, Beijing Vegetable Technology Extension Station, Sichuan Provincial Seed Company and Hubei Vegetable Research Institute; and **Plant breeders** from Tianjin Vegetable Research Institute, Hunan Vegetable Research Institute, and Beijing Vegetable Research Center.

In addition a group of 35 agricultural professors and experts from the provinces of Fujian, Guangdong, Guangxi, Guizhou and Hainan provinces involved in the "Across Straits Horticultural Forum" also visited the Center in 2006.



BREEDING

Collaborative research produces new varieties of Chinese cabbage, tomato and mungbean

Collaborative projects have been initiated through our Asian Regional Center in Bangkok to increase the production of Chinese cabbage, tomato, sweet potato, soybean, and mungbean in the PRC. These involved collecting and sharing germplasm, conducting disease surveys and plant breeding - including the development of local hybrid seed production of Chinese cabbage, rust-resistant soybeans, and improved tomato and pepper varieties. The Center also developed mungbean lines that significantly increased yields and are now grown on nearly 75% of the mungbean area in the PRC.

INDIGENOUS VEGETABLES

PRC contributions to the International Conference on Indigenous Vegetables organized by the Center

In 2006, the First International Conference on Indigenous Vegetables and Legumes was jointly organized by the World Vegetable Center and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). Two papers were presented by scientists from the PRC: "Development and utilization of novel cucumber germplasm through interspecific hybridization" by scientists from Nanjing Agricultural University and the Chinese Academy of Agricultural Sciences, Beijing; and "Germplasm and production of water bamboo, *Zizania caduciflora* in China" by scientists from the Zhejiang Academy of Agricultural Sciences and Zhejiang University, Hangzhou.

PLANT PATHOLOGY

Two training workshops on late blight run for PRC scientists

In recent years, the Center's scientists were invited to the PRC to organize two workshops on controlling late blight in tomatoes for PRC plant pathologists and plant breeders, which were attended by 90 scientists from 62 institutes. These workshops were conducted in conjunction with the Institute of Vegetable and Flowers, and the Chinese Academy of Agricultural Sciences (Jiangsu AAS) with support by PRC Ministry of Agriculture.



WORKSHOP

Combined workshop to build on and promote our collaborative work

In 2005, an intensive one day workshop was organized to encourage expanded joint work with the PRC. The workshop involved 18 scientists and managers from the PRC and 14 scientific and administrative staff from the World Vegetable Center. Presentations focused on developing common interests in the breeding of tomato, pepper and crucifers, as well as biotechnology initiatives and joint work in late blight research.



CAPACITY BUILDING

Two decades of training PRC scientists

Over the last 20 years, approximately 140 young researchers from the PRC have been trained in courses hosted by the Asian Regional Center in Bangkok. Follow-up surveys have shown that this training has helped these scientists in their professional growth and many have subsequently achieved positions of leadership and senior responsibility in the PRC.



AVRDC - The World Vegetable Center

in Partnership with
the People's Republic of China

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