

LI Dianrong

Li Dianrong, male, was born in Shaanxi Province of China in October, 1938. He is professor and doctoral supervisor, and members of GCIRC; previously, was member of council of Chinese Genetics Society and Oil Crop Committee of Chinese Crop Science Society. He graduated from northwest biology soil college of Chinese Academy of Sciences in 1962. From 1960's to 1970's, Prof Li had been working in Huayin state farm of San Menxia reservoir area, was engaged in the management of production and research of cultivation techniques of crop varieties.

From 1981, Prof Li has been working in rapeseed breeding and cultivation techniques research in Hybrid Rapeseed Research Center of Shaanxi province.

Main achievements

1. “Qinyou No.2”, which was bred by Li Dianrong and was registered in 1985 in China, was the first male sterile triline hybrid rapeseed variety of *B. napus* L with a large area releasing successfully in production in the world. The variety was released in 12 provinces and regions in China from Huang Huai area to Yangtze River Basin, accumulative total of planted area reached to 1.1 ten million hm², newly increased production value about 8.6 billion RMB.

This variety has been used for 23 years in production, and its successfully popularized application promoted the transition from conventional rapeseed variety to hybrids in China, and showed hybrids potential in increase yield. At the same time, Qinyou No.2 accelerated the research in hybrid rapeseed of China, and it caused also profound impact to the science research and production of rapeseed of the world. It was a breakthrough achievement with advanced level in world. In 1987, this achievement was awarded the second prize for the National Award for Technological Invention and Shaanxi Provincial Grand Prize for Science and Technology progress, and the first prize by Ministry of Agriculture in China in 1991

2. In the late 1980s, Prof. Li found yellow-seeded dominance gene in *B. napus*, and bred the first yellow-seeded hybrid rapeseed variety of the world in *B. napus*, Huangza No.1 in 1996, and Huangza No.2 in 2003. This study provided a new way on high-oil variety breeding in *B. napus* L.

3. Qinyou No.7, a double-low hybrid rapeseed variety, was bred with good yield ability and yield stability and adaptability in 1998. It had the widest adaptable region and the biggest planted area per year during 2004 to 2008 in China. This achievement was awarded the first prize for Shaanxi Provincial Science and Technology Award in 2007, and the second prize for National Award for Science and Technology progress in 2008.

4. Oil content of those rapeseed germplasms in *B. napus* was raised from 40% to 60% or so and that of hybrids from 40% to over 50% in 2008 by Prof. Li and his team through continuous selection of 15 years. And Qinzayou No.4, the double-low spring hybrid rapeseed variety, was registered and released in 2010. At present, it is the unique rapeseed variety with 50.01% oil content and through national authorization in China.

5. Prof. Li and his team developed “SX-1” Chemical Hybridization Agent (CHA) and its application technique and came up with the heterosis utilized model of rapeseed,

those germplasms with high oil content combining with CHA to induce male sterility. And using the pattern, 11 hybrids were bred and released, and 10 hybrids oil content of them are over 46%. At present, planted area of those hybrids has reached to 270 thousand hm². The method of using CHA to induce male sterility is generally recognized by breeders.

Prof. Li Dianrong and his team were granted 10 patents, and awarded 9 above second prizes for science achievements at ministerial and provincial-level, and bred 22 rapeseed varieties with accumulative total extension area of 1.57 ten million hm² and newly increased output value about 15.47 billion RMB. Li Dianrong established the basic technology framework and main content of science system in hybrids rapeseed breeding, parents reproduction, hybrids production, identification of hybrids purity, research and work out of cultivation technology and varieties popularization.

Awards and Honors:

In 1986, Li Dianrong was awarded the title of the young and middle-aged experts with outstanding contributions

In 1997, Li Dianrong was awarded the prize for outstanding contributions to science research for agriculture science and education prize in China

In 1999, Li Dianrong was awarded a firstclass merit for professional talent by Ministry of Personnel of China.

In 2001, Li Dianrong was awarded the title of advanced worker for agriculture science and technology in China

In 2004, Li Dianrong was awarded the prize for Highest science and technology achievement in Shaanxi province of China

In 2007, Li Dianrong was awarded the grand prize for a third term invention and entrepreneurship prize by association of invention in China

In 2009, Li Dianrong was awarded the title of role model in agriculture science when the 60th anniversary of founding of New China.

In 2010, Li Dianrong was awarded the Agronomy prize for scientific and technological progress prize for Ho Leung Ho Lee foundation