

Hwajinbyeo were derived from Asominori, which resistance originated from Shiga Sekitori 11. *Xal* resistance gene of Anjunabyeo and Hwayeongbyeo originated from Wase Aikoku 3. The resistance of Cheongcheongbyeo was derived from IR 2035, which resistance may be originated from Peta. Milyang 42 may have multiple resistant genes originated from IR 667, IR 1317, IR 946 and IR 1539. Hangangchalbyeo may have resistant genes originated from KR 51 and TKM 6.

**B-15 Disruption of *purD* attenuates virulence of *Xanthomonas oryzae* pathovar *oryzae* KACC10331.** Park, Young Jin, Eun-Sung Song, Hee-Wan Kang<sup>1</sup> and Byoung Moo Lee\* National Institute of Agricultural Biotechnology, Rural Development Administration, Suwon, 441-707, Korea, <sup>1</sup>Graduate School of Bio and Information Technology, Hankyong National University, Ansong, 456-749, Korea

We constructed a mutant library of *Xanthomonas oryzae* pv. *oryzae* strain KACC10331 by random transposon mutagenesis and identified a purine-auxotrophic mutant (MXO793). MXO793 is disrupted *purD* with transposon containing kanamycin resistance gene and required exogenous purines for growth on minimal media, as well as deficient for virulence on rice. *PurD* gene encodes phosphoribosylamine-glycine ligase, which is involved in purine biosynthesis pathway. In assays of virulence, MXO793 failed to develop the disease (bacterial blight) on susceptible rice cultivars. These results indicate that *purD* is required for cell-growth as well as virulence in *X. oryzae* pv. *oryzae*.

**B-16 The relationship between Type I restriction-modification system and transformation efficiency of *Xanthomonas oryzae* pathovar *oryzae*.** Lee, Byoung Moo, Young Jin Park, Eun-Sung Song, Jeong-Gu Kim, Hee-Jung Cho and Gil-Bok Lee National Institute of Agricultural Biotechnology, Rural Development Administration, Suwon, 441-707, Korea

*Xanthomonas oryzae* pv. *oryzae* (Xoo) causes bacterial blight (BB) in rice. Molecular studies on BB disease caused by Xoo have been facilitated by isolation genes from other *Xanthomonas* species due to the difficulties derived from genetic manipulations including random insertional mutagenesis and marker exchange, especially Korean Xoo strains. Transformation efficiency of bacterial cell was influenced by restriction-modification (R-M) system, a responsible for the attack on