

The community of practices “Concept applied to rice production in the Mekong Region: Quick conversion of popular rice varieties with emphasis on drought, salinity and grain quality improvement”¹

Theerayut Toojinda, Jonaliza L. Siangliw, Sureeporn Kate-ngam, Watcharapong Wattanaku, Monthathip Chanpengsaey, Men Sarom and Toe Aung*

**National Center for Genetic Engineering and Biotechnology (BIOTEC), Thailand;*

email: theerayut@dna.kps.ku.ac.th

Line conversion using MAS of target varieties started in May 2007 and was followed up in November 2007 and May 2008. DAR (Myanmar) converted IR53936 to have salinity tolerance and Manawthuka to be aromatic. Homozygous F₂s are validated for target traits and will be planted in 4 provinces in Myanmar for yield trial. CARDI (Cambodia) developed drought tolerant line CAR3 to be aromatic with good eating quality. BC₃F₂-CAR3 selected lines are now evaluated for aroma and other quality traits and observation yield trial will be conducted in CARDI this wet season. NAFRI (Laos) improved the aroma of glutinous rice TDK1 by transferring aroma gene from Homnangnouane (HMN). Twenty-six BC₃F₂-TDK1 were found carrying HMN allele in all markers and the selected BC₃F₂ will be planted in NAFRI in 2008 wet season for seed increase before testing in target locations. RGDU and UBN (Thailand) work together in developing aromatic IR57514 with good eating and cooking qualities as well as tolerance to submergence and drought and resistance to bacterial leaf blight. BC₃F₄-IR57514 lines (236) are screened for submergence and drought tolerance this wet season as well as aroma and grain qualities at RGDU. Observation trial will also be conducted at RGDU.

¹ GCP SP3 Project G4007.03: *The community of practices “Concept applied to rice production in the Mekong Region: Quick conversion of popular rice varieties with emphasis on drought, salinity and grain quality improvement”*