Health management of pathogen-free (PF) citrus seedling for the rehabilitation of the citrus industry from serious epidemic of HLB and virus diseases in Cambodia and Vietnam (Year 3)

Under the present RDF/FFTC project, the improvement of the HLB/virus indexing techniques, and pathogen-free (PF) citrus foundation and nursery systems have been accomplished in Vietnam and Cambodia in the past two years project. However, the PF foundation germplasms have to be increased for the development of their citrus industry by diversifying PF citrus cultivars and varieties. The health management of PF citrus orchards has to be improved by HLB/virus epidemiological study in these two countries. The above-mentioned integrated technologies have not been established in the other countries of the region such as Myanmar and Laos.

Technology transfer highlights

Production of diagnostic probes such as monoclonal antibody and its conjugate against CTV, and Iodine kit of HLB detection, has been continued in the Plant Virus Laboratory, NTU, under the present project. The diagnostic probes have been provided for domestic use and Indochina countries in indexing PF citrus foundation and seedlings. Shoot-tip micrografting (STG) has been conducted in the present Laboratory for obtaining new PF citrus foundation from good cultivar selections instead of counterpart countries. The new PF Xa Doai (XD) STG-seedlings have been obtained via STG from a good selection of a XD tree bearing larger fruits with nice juice quality found in Ghe An area, Vietnam last year. The PF STG-seedling of XD will serve as new PF citrus foundation for providing Vietnam and domestic use.

FFTC consultant Prof. Hong-Ji Su visited

The scientists and researchers of RUA in Cambodia and PPRI in Hanoi were the beneficiaries of the various training programs on citrus greening (HLB) detection techniques.
the Plant Protection Research Institute (PPRI), Hanoi on July 14-17, 2013 to promote collaboration works and bring HLB/virus diagnostic probes and reagents, for PPRI has been providing PF scion-woods of major cultivars for mass production of PF seedlings in some local nurseries by well-utilizing the insect-proof screen house contracted 20 years ago under RDF donation. However, the PF germplasm of major cultivars need to be increased with new promising cultivar selection or varieties in order to diversifying cultivars for industry development.

Professor Su also visited the Royal Agricultural University (RUA), Phnom Penh, Cambodia, after his Vietnam his trip, on July 18-21, 2013. Dean Setha showed his operation status of citrus indexing laboratory and PF citrus foundation screen-house. He likewise visited the citrus-growing areas and institutes in Myanmar on October 30 to November 2, 2013 where he observed the status of the project on greening (HLB) epidemic and citrus production. The field inspection was fairly accomplished through their kind guidance.

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Project type: Technology transfer
Co-sponsor: Royal University of Agriculture, Phnom Penh Cambodia Plant Protection Research Institute, Hanoi, Vietnam

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