

**Research News**

**PRODUCTION OF *CITRUS TRISTEZA VIRUS* (CTV) FREE PLANTING MATERIALS OF CITRUS VARIETIES THROUGH MODIFIED SEMI- MICRO GRAFTING.**

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Mandarin (*Citrus reticulata* Blanco) and sweet orange (*Citrus sinensis* (L.) Osbeck) are the predominant citrus fruits cultivated in Sri Lanka. *Citrus* species are highly vulnerable to many types of pathogens. Among the viruses; *Citrus tristeza virus* (CTV) is the most devastating one which can cause the death of millions of established citrus trees. A study was carried out to produce CTV free mandarin varieties of Rahangala jamanaran, Bangkok mandarin, Madu, Indu and sweet orange varieties of Arogya and Sisila using semi-micro grafting technique. Shoot-tips of infected mandarin and sweet orange infected by CTV were excised. The four sizes of scions (0.5, 1.0, 1.5 and 2.0 mm) were used and these were grafted on “Nasnaran” rootstock. The ‘L’ shaped cut was used to place the different scions. ‘Indu’ mandarin variety and ‘Arogya’ sweet orange variety showed a comparatively high success graft union percentage for 1.0 mm (26.7%) scion size compared with 0.5 mm, 1.5 mm and 2.0 mm scion sizes. Successful semi-micro grafted plants were tested by Direct Antibody Sandwich Enzyme-Linked Immune Sorbent Assay (DAS-ELISA) against CTV. It showed that all plants obtained by semi-micro grafting technique were free from CTV. The semi-micro grafting technique using 1.0 mm scion size can be used to produce the CTV free citrus plants to provide healthy bud wood to citrus growers.