

SESSION 4

PESTS AND DISEASES MANAGEMENT

IMPORTANT PESTS AND DISEASES OF FRUITS FOR EXPORT (MANGO, PINEAPPLE AND PAWPAW) IN FIJI – A REVIEW

Mereia F. Lomavatu, Anare Caucau, & Ane Mataitoga

Plant Protection Section, Koronivia Research Station, P. O. Box 77, Nausori, Fiji

mereia.fong@govnet.gov.fj, anare.caucau@govnet.gov.fj, ana.mataitoga@govnet.gov.fj

ABSTRACT

The agriculture sector in Fiji remains an important income generation for the economy and food security. It accounts to 7% of Fiji's GDP and is the main source of work for more than 83% of the rural population and supports 27% livelihood of the population. Fiji aimed to transform the sector to commercial scale agriculture and increase non-sugar export by USD46.2 million in 2020. In 2014 total export of fruits (papaya, pineapple and mango) and vegetable was USD18.1 million, USD16.8 in 2015, USD16.9 in 2016, and USD21.1 million in 2017.

Papaya and mango are fruit fly hosts (*Bactrocera xanthodes* and *B. passiflorae*). Therefore they are exported according to the Bilateral Quarantine Arrangement (BQA) which documents Australia and New Zealand's requirements for the control of fruit fly (FF) species of economic significance that is associated with fruit fly host material imported into these two countries. Exported produce that do not fall under the BQA are tagged as non-BQA commodities; pineapple included. Fiji exports four (4) BQA commodities which is treated in the High Temperature Forced Air (HTFA) treatment chambers. The HTFA treatment protocols in use have been agreed with our trading partners, New Zealand (papaya, eggplant, mango, and breadfruit) and Australia (papaya).

Other important pests includes pineapple mealy bugs (*Dysmicoccus brevipes*) and mango seed weevil (*Sternuchus mangiferae*). Although devastating exotic diseases such as papaya bacterial crown rot (*Erwinia papayae*) and papaya ringspot virus are not present, Fiji records papaya black spot (*Asperisporium caricae*) and papaya Phytophthora rot. Two common post-harvest diseases of mango have recently been found in Fiji; *Colletotrichum asianum* is the main causal organism for mango anthracnose and *Lasiodiplodia* spp causes mango stem end rot. In pineapple, *Ceratocystis paradoxa* causes white leaf spot, basal (butt) rots and fruit rots (black rot or water blister).

Keywords: Pests and diseases, *Bactrocera* spp., BQA, fruits, export