DEVELOPING THE IPM PACKAGE OF DRAGON FRUIT IN THE SOUTHERN OF VIETNAM

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ABSTRACT

In recent years, dragon fruit crops have contributed as an important economic crop in Vietnam, accounting nearly 30% (equally USD 1.1 billion) of the national total export value of fruits and vegetables. Despite the huge potential, dragon fruit production and export still have many key issues and challenges that need to be addressed. The most important issues are caused by pests and diseases and export market requirements of Maximum Residue Levels on product.

The crop is affected by a number of pests and diseases with diseases causing the greatest losses both in the field and during postharvest. The major field pests and diseases in Vietnam are canker (*Neoscytalidium dimidiatum*), Bipolaris black spot (*Bipolaris cactivora*), anthracnose (*Colletotrichum gloeosporioides*), sooty mold (*Capnodium* sp.), Thrips (*Thrips palmi*). Thus, managing the key diseases is pivotal to decrease losses as well as increase productivity and export value especially beneficial for the small land holder agro-ecosystem.

An integrated pest management (IPM) package of dragon fruit is mainly focusing on canker disease which's known as the most destructive disease in Vietnam since 2011, and other minors in the rainy season. During 2014-2021, the dragon fruit IPM package has been developed based on knowledge of the life cycle, epidemiology of the pathogen and a variety of tactical approaches (encourage soil health, crop hygiene, canopy management, fruit bagging, biological, and agro-chemical) to manipulate the pests and diseases conditions. Through its application on small and scaled up demonstration models, incorporating with GAP procedures (cooperatives) to link full supply chain from farms to markets showed more effectiveness of IPM approaches, including cost benefits that takes into account the impacts to growers, communities and environment as compared to the conventional way.

Keywords: IPM package, dragon fruit, canker disease, *Neoscytalidium dimidiatum*, *Thrips palmi*