



Improving smallholder farmer incomes through strategic market development in mango supply chains in southern Vietnam

**Mid Term Review
July 2021**

Activity: A 2.1
Title: Diseases of Mango, MRL Testing, & Bagging Study
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Implementing Agency



SIAEP



Funding Agency



Australian Government
Australian Centre for
International Agricultural Research

Aim & objective

Activity 2.1

- ▶ Diseases of Mango, MRL Testing & Bagging Study

Focus

- ▶ Improving the management of Anthracnose and Bacterial blackspot diseases on mango through better chemical and management.
- ▶ Reduction of the burning of mango flowers caused by fungicide applications.
- ▶ Develop an understanding of the impact on fruit bagging on disease reduction.

Research questions

- ▶ What on-farm innovations are likely to generate the most significant impacts to reduce losses, increase productivity & quality outputs that will improve returns directly related to smallholder incomes?
- ▶ What improved GAP, plant nutrition, disease & pest management models have the greatest potential to reduce the negative effects of agrochemical use for farmers, the environment, & the end consumer whilst being able to produce an affordable quality fruit?
- ▶ What innovations have the most cost-effective & positive impacts on productivity, losses, quality & harvest timing, leading to improved price & farmer income?

Background

- ▶ Disease is the largest single limitation for development of mango markets particularly where fruit is transported over long distances
- ▶ Vietnam has a number of registered chemical products for control of disease
- ▶ uncertainty exists around the application & efficacy of some products.
- ▶ mitigating this damage can lead to improved fruit set & yield.
- ▶ Fruit bagging is now common practice in the MRD, however it is not known what level of protection can provide for disease reduction and the best way a spray program can be incorporated with fruit bagging practice.



Achievements

Outputs – current study

- ▶ Understanding the effect of currently available fungicide products compared to traditional control programs.
- ▶ Preliminary results have shown that all products gave varying levels of control over BBS.
- ▶ Understanding if the addition of micronutrients
- ▶ Understanding the role of fruit bagging in disease management programs



- ▶ The trial process will help develop a better understanding of designing integrated disease management research.



Fig 1. Experimental trees



Fig 2. Fruits bagging



Pathway to completion

- ▶ Undertake trial program August/Oct
- ▶ Draft Report Mid November
- ▶ Final report 8th Dec
- ▶ Industry & research papers

Future Opportunities

- ▶ Development of integrated disease management programs ie combining with HWT work that will increase efficacy whilst reducing chemical input.
- ▶ Improved understanding of the role of physical barriers in disease control could revolutionize the current approach to management and offer much wider non-chemical solutions that what is currently available.