

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

**Mid Term Review
July 2021**

Activity: A2.3
Title: Sap Burn & Monitoring Quality Study

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Activity: A2.3

Sap Burn & Monitoring Quality Study

Focus

- ▶ To identify & demonstrate opportunities to improve productivity & quality in fresh mango supply chains

Research questions

- ▶ What on-farm, post-harvest & marketing 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 innovations have the most cost-effective & positive impacts on productivity, losses, quality and harvest timing, leading to improved price & farmer income?

Background

- ▶ sap 'latex' burn is the leading cause of mango quality loss
- ▶ confirmed in early activity (A1.6)
- ▶ current practices, particularly, harvest & transport are exacerbating this issue
- ▶ research demonstrated – a further destemming process is undertaken, i.e. down the chain, the greater this issue will be
- ▶ historically domestic markets accept sap burn fruit
- ▶ sap management systems have been tested in packhouses
- ▶ testing at farm level is required to assess the viability & acceptance



Achievements

- ▶ impact of treatment monitored throughout the chain
- ▶ reductions in sap damage measured
 - 90% packhouse level
 - 94% retail level
- ▶ viability of sap management at farm level confirmed
- ▶ efficiency of the system can be evaluated
- ▶ videos of de-sapping protocol at the farm were captured to highlight efficacy of the system



De-sapped fruit
Cai Be retailer, Tien Giang



- ▶ skills in research design
- ▶ training for six-person team
- ▶ stakeholder hands-on training with farmers in sap burn management techniques - 4 farmers & 8 harvesters
- ▶ preparation for researchers to undertake de-sapping & quality activities for the demonstration chain

Capacity Building

Activity team members

- ▶ Anh Tram San
- ▶ Lam Thu Le
- ▶ Pho Dong Lam
- ▶ Nam Hoai Nguyen
- ▶ Phuc Vinh Nguyen
- ▶ SOFRI Staff



De-sapped fruit, retail store, HCMC

Lessons learnt

What worked well:

- ▶ at wholesale & retail levels
 - results confirmed & validated use of treatments
- ▶ system can be incorporated into current farm practices



What could be changed or improved next time:

- ▶ variations in results indicated, movements away from system principles occurred during the study
- ▶ further structured training to undertake system evaluation would develop capacity in the team & deliver validated results

July '21 – March '22

- ▶ test, refine & document Sap burn Practice (SP) Guide for farmers (Fact Sheet)
- ▶ Present findings & Fact Sheets – Annual project workshop - Nov '21

Future Opportunities

- ▶ to advance the integration of the SP Guide & principles through commercial entities in southern Vietnam who are seeking to trade with modern retailers in Vietnam & export destinations
- ▶ to identify opportunities to integrate & implement the SP Guide & principles for mango trade in partner countries to produce clean / premium fruits