



Activity 2.4 Mango Processing Study – Partial Freezing Trial

Kim Oanh Tran &
SIAEP Team

Richard Beyer

Implementing Agency



SIAEP



Funding Agency



Australian Government
Australian Centre for
International Agricultural Research

Activity 2.4

▶ Mango processing study – Partial freezing trial

Focus

Optimizing the returns for effort for small-holder farmers by utilizing excess mangoes by bulk freezing at the height of the season for later on-processing thereby minimizing waste and increasing processing facility usage.

Research questions

- ▶ Is processing mangoes in bulk at the height of the season likely to increase the return for effort for small-holder farmers by reducing losses, increasing the utilization of the crop by processors?
- ▶ What is the potential to increase farmer incomes by such an approach and are processors likely to benefit through increased usage of the facilities by on-processing the bulk frozen mangoes out of season?
- ▶ What are the roles and responsibilities of the key local partners to ensure the innovation successes are mainstreamed within the communities in southern Vietnam?



- ▶ Conducted 3 processor interviews
- ▶ quality imperatives for exported frozen mangoes now understood
- ▶ 3 freezing mango trials with the processors conducted
- ▶ quality characteristics of mangoes suitable for processing defined
- ▶ draft *Guide for Bulk Mango Freezing completed as a for runner of a Code of Practice*

Achievements



Thawed flesh-cut Keo mangoes (Sao Khue company)



Thawed flesh-cut Cat Chu mangoes (Hung Hau company)



Thawed flesh-cut Cat Chu mangoes (Western Farm company)



Capacity Building

Research team reported the following capacity building:

- ▶ Developed skills in interview
- ▶ Developed skills in research design
- ▶ Developed skills in assessing sensory quality of frozen mango product
- ▶ Understood the way to build a Code of practice for freezing mangoes

SIAEP Team

- ▶ Tran Thi Kim Oanh
- ▶ Lam Dong Pho
- ▶ Dang Thi Sau
- ▶ Nguyen Vinh Phuc
- ▶ Nguyen Hoai Nam
- ▶ Ngo Van Binh
- ▶ Tran Ngoc Linh

Lessons learnt

What worked well:

- ▶ The online course was structured well.
- ▶ Online-meetings and quick skype chat with expert were conducted well

What could be changed or improved next time:

- ▶ Providing the course on building Standard Operating Procedure for frozen mango



Pathway to completion

Tasks to be completed July '21 – March '22

- ▶ Bulk freezing at the height of the season concurrent with normal freezing processes increases demand for the crop, reduces waste provides a resource for utilization out of season easing fixed costs with the ultimate outcome that returns for effort are maximised for all chain members – especially small holder farmers.
- ▶ Further liaison with the processors will determine the costs and benefits of such an innovation.
- ▶ Benefits to small-holder farmers will be analysed.