

# **Development Action Planning (DAP)**

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(Public Organization)  
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**35<sup>th</sup> International Vegetable Training Course  
“Vegetables: From Seed to Table and Beyond”  
Module 2**

# Three topics in module 2

- **Fresh cut**
- **Cooling**
- **Package design**



# **Research and Development on Postharvest Management of the Royal Project Organic Vegetables**



**The Royal Project is an initiative of  
His Majesty, King Bhumibol Adulyadej of Thailand.**

**It was founded in 1969 to solve the problem of deforestation,  
poverty and opium production by promoting alternative crops.**





**To extend and support the research and development activities of the Royal Project Foundation.**

# Introduction

- 1. The Royal Project Foundation is in operation to promote and develop careers for highland farmers planting temperate crops including vegetables, fruits, flowers, plants, tea, coffee, herbs and other crops**
- 2. Organic farming began operation in 2002**
- 3. Produce 40 types of organic vegetables**



# Problems

- 1. Postharvest Losses more than 50%**
- 2. Incur costs for the Royal Project Foundation and farmers**

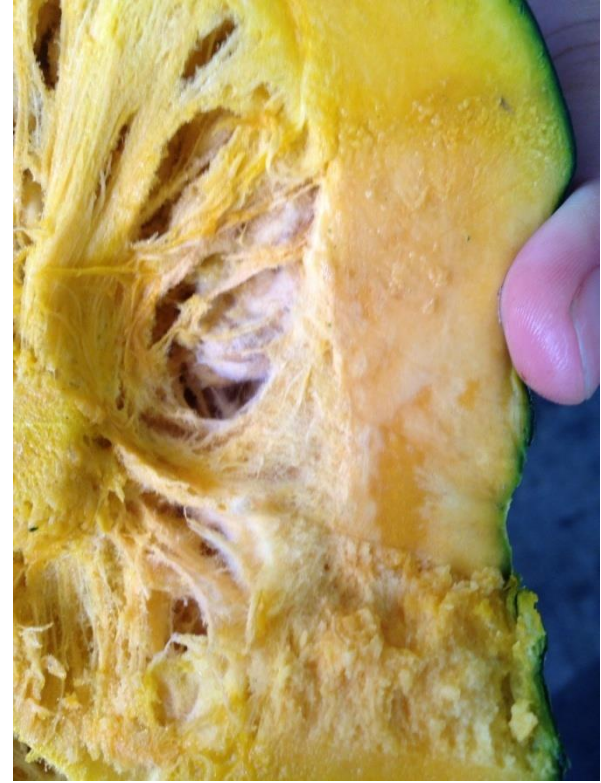
















# Objectives

**To develop an appropriate and effective management of postharvest handling of organic vegetable for the Royal Project Development Center**







# Output

**Development of postharvest handling to reduce loss in organic vegetables**

# Outcome

**Farmers from Royal Project Foundation will be taught using proper postharvest handling to increase the shelf life of organic vegetables, reduction in management costs, increase of farmers' income and improved produce competitiveness.**

# Activities

## 1. Studies of postharvest handling of the Royal Project Development Center

- ❖ Survey and data collection for postharvest handling

- ❖ Survey of produce losses in organic vegetables taking place during handling starting from farms through the arrival the Royal Project Chiang Mai shop.

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graph TD; A[ ] --> B[mechanical (physical)]; A --> C[physiological deterioration]; A --> D[insect damage]; A --> E[plant diseases];
```

**mechanical  
(physical)**

**physiological  
deterioration**

**insect  
damage**

**plant  
diseases**

# **Activities (Cont.)**

- ❖ **Summarize and analyze data based on the causes of the produce loss.**

- 2. Suggest recommendations for improve postharvest handling to increase an overall efficiency in organic vegetables management**

- ❖ **Propose solutions to minimize loss of organic vegetables at each stage of the postharvest handling.**

- ❖ **Test proposed solutions, record losses taking place, and compare the results before and after the postharvest handling process is changed.**

- 3. Prepare a postharvest management manual for organic vegetables of the Royal Project Development Center.**



# Scope of the Research

## **The 10 sites of Royal Project Development Center**

- **The Royal Project Development Center – Thungloun**
- **The Royal Project Development Center – Maesapok**
- **The Royal Project Development Center – Kaenoy**
- **The Royal Project Development Center – Thungreng**
- **The Royal Project Development Center – Huayseay**
- **The Royal Project Development Center – Huaysompoy**
- **The Royal Project Development Center – Maethanue**
- **The Royal Project Development Center – Huaypong**
- **The Royal Project Development Center – Angkang**
- **The Royal Project Development Center – Intanon**

**Time : January 2017 – December 2018**

[illegible]

# Time (cont.)

Year	Activities	Jan.	Feb.	Mach	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
2017	➤ Summarize and analyze data based on the causes of the produce loss.												X
2018	➤ Suggest recommendations for improve postharvest handling												
	- Propose solutions to minimize loss of organic vegetables	X	X	X	X								
	- Test proposed solutions, record losses taking place, and compare the results					X	X	X	X				
	➤ Prepare a postharvest management manual									X	X	X	X



# Financial

Year	Kind of budgets	Description	Amount (Baht)
2017 - 2018	Personal	<ul style="list-style-type: none"> <li>- Master degree (1 personal x 22,000 baht x 24 month)</li> <li>- Bachelor degree (1 personal x 16,000 baht x 24 month)</li> </ul>	912,000
	Pay	<ul style="list-style-type: none"> <li>- Over time</li> </ul>	18,000
	Expenses	<ul style="list-style-type: none"> <li>- Allowance</li> <li>- Residence</li> <li>- labor</li> <li>- Lab analysis</li> <li>- Seminar and training course</li> </ul>	670,000
	Material	<ul style="list-style-type: none"> <li>- Office and computer</li> <li>- Petrol</li> <li>- Agricultural equipment</li> </ul>	1,400,000
<b>Total</b>			3,000,000

# Challenges

- **No transport access**
- **Communication problems**



**Thank you  
for your attention**

