

# Value Chain Management Module



**ERASMUS+**

HIGHER EDUCATION – INTERNATIONAL CAPACITY BUILDING PROGRAM  
Participatory and Integrative Support for Agricultural Initiative

Chiang Mai University, Chiang Mai, Thailand  
August 8-26, 2018

# 1 General Information

The module “Value Chain Management” aims to introduce students the fundamentals of scientific work applied on the issue of value chain management. The skills gathered during the course were oriented to empower participants to succeed in most of university-level scientific projects or professional field. The students participated on rigorous academic research (including data collection process in the field), they were trained to express their ideas, opinions and they learnt how to publish a research results in form of conference poster and presentation.

## General Learning Objectives

- Understand of the broad concepts of value chain management.
- Get to know principles of postharvest management and marketing of agricultural products.
- Experience own research including identification of research objective (research question), setting up the research methodology and research plan, collecting and processing the data, data analysing and presentation of the results.
- Experience the multiple ways of publication of scientific results – poster, presentation, report paper manuscript.
- Make effective use of oral, written, and visual means to comment, assess, critique and communicate.

## Organizing team

Hosting institution: Chiang Mai University (CMU)

Organizing team of the module:

- Chiang Mai University (CMU), Dr. Pornsiri Suebpongsang (pornsiri73@gmail.com), Dr.Juthathip Chalermphol, Dr.Chatchai Khiewngamdee.
- Czech University of Life Sciences Prague (CULS), Dr. Petra Chaloupkova (chaloupkova@ftz.czu.cz), Dr. Olga Leuner (leuner@ftz.czu.cz), Dr. Miloslav Petrtyl (petrtyl@af.czu.cz)

## Period

August 8 - 26, 2018 (arrival of the participants on August 7, departure August 27)

# 2

## Description of activities organized during the Value Chain Management Module

### DAY 1

#### Registration, welcome session, warm up and teambuilding

The first thing in the morning was the registration of the participants, where they received the programme, name tags and backpacks of PISAI project. The official programme started shortly after the registration. The opening speech was given by Assistant Professor Dr. Budsara Limnirunkul, the head of the Department of Agricultural Economy and Development and by Assistant Professor Dr. Pornsiri Suebpongung, Director, Agricultural Technology Services Center (the main coordinator of the Module, CMU coordinator in PISAI project), representatives of the Chiang Mai University; Asst. Prof. Chutima Tantikitti (coordinator of the whole PISAI project) and Dr. Petra Chaloupková (the Module coordinator) as well as by all coordinators and the academic staffs (Dr. Olga Leuner and Dr. Miloslav Petrtýl). The students from Thailand, the Czech Republic and Finland presented their home country, universities, faculties and also themselves (their name, nickname, study programme, hobbies). After lunch, the guided trip around the university was held. At the end of first day, students were divided into 5 teams (based on random selection) and the very first team activity was an icebreaking game (called African village).



## Value chain aspects

DAY 2

The lectures started second day by explaining the aspects of value chain including some practical examples of Value chain analysis. Afterwards the students visited the local market and university shops where are also sold local products.



**Ton Phayom market** is retail market near Chiangmai University. Both fresh fruit and vegetable and processing food are sold here. Open every day from 6 am-7 pm.

**Fruit market in Chiangmai university area** is market located in Chiangmai university and control the quality control for safety by faculty of agriculture.

### Learning Objective:

- Experience retail market for fruit and vegetable.
- Briefly interview seller in the market for marketing channel of fruit and vegetable in the market.



## DAY 3

### Value chain aspects

During third day the students got information about problem formulation, popularization of science, scientific journalism and literature search and during afternoon they visited the Royal Project Produce Centre. The students were also asked to prepare own scientific news which they had to be presented on Tuesday next week (day 6).



The Royal project produce centre at Mae Hia



The Royal Project Produce Centre is centre of postharvest management of Royal project product. The centre have GMP and HACCP. It is located at Mae Hia, Mueang Chiang Mai District which take around 20 minute from Chiangmai university.

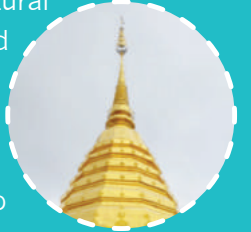
#### **Learning Objective:**

Understand the postharvest management of fruit and vegetable under GMP and HACCP

# DAY 4

## Teambuilding, cultural aspects, preparation for the first data collection

The presentation about cultural differences (especially during the data collection in different environment) was presented on Saturday morning together with team game and practical examples (video and short icebreaking game). Then the students were divided into different teams (5 teams with 4-5 students – mix Thai and international students). They were responsible to select one agricultural product and they dedicated the whole data collection process to their selected product. The students picked: tomatoes, melon, lettuce, chilli and cucumber. They were asked to prepare the set of questions for farmers. On Sunday, it was free day and all students organized themselves group visit of the Wat Phra That Doi Suthep, a spectacular temple on the mountain close to Chiang Mai city.



## The first data collection

The visits of three different farms were organized on Monday (August 13, public in Thailand). We have visited the family melon farm (main production of family was teakwood products), the second farm was producer of melon who sell it into the supermarkets, and then two farms with mix production of fruits and vegetable. The famers usually presented their approach of production to the whole group, then we visited the farm and see the production and then the students asked the specific questions regarding their selected products.



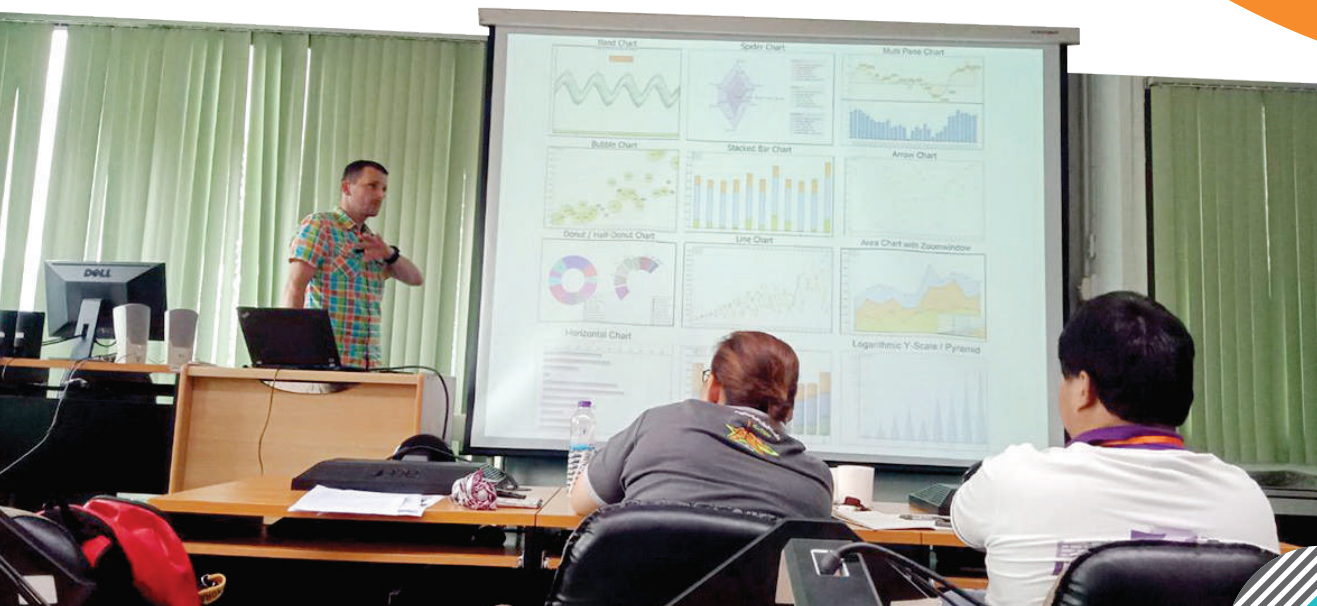
### Learning Objective:

- Practice for data collection for production, marketing management and value chain of melon, fruit and vegetable.
- Understand the production, marketing management and value chain of melon, fruit and vegetable.

## DAY 6

### Value chain aspects, popularization of science

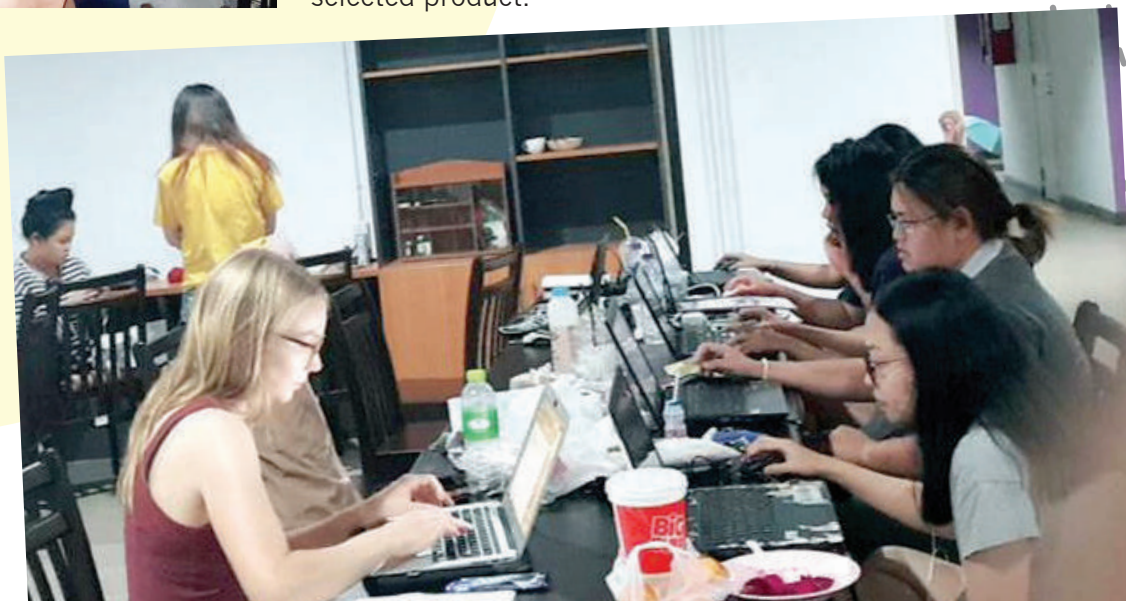
The lectures of postharvest processing and graphic designs for data collections were presented on Tuesday morning. During afternoon session the students presented their selected scientific news. They also voted for the best presentations and the winners got small present (bunch of local fruit). Three students had to prepare it again as they just copy some presentation already done. Generally, the presentations were good to satisfactory, few were very well prepared. However, English language was a big obstacle for some students.



### Value chain aspects - marketing and consumer behaviour

## DAY 7

The lectures regarding marketing research methods, consumer behaviour and economic evaluation of collected data were presented during Wednesday morning. In the afternoon, the students were asked to prepare their own questionnaire designed for personal interviews with consumers as well as for sellers of their selected product.





# DAY 8-10

## Field research

Following three days were dedicated only for data collection procedure by the teams. The students had to decide to which place will go (visit of farmers, local markets or shopping centres) and plan their research plan for data collection. The instructions were: i) to visit at least 3 different places, ii) to contact minimum 10 sellers and iii) to interview minimum 100 consumers. Every morning there was a joint meeting where the students could discuss the final version of the questionnaire, data collection approach, progress in their data collection etc.



## Reflecion from the field research, scientific writing – poster (theory and practice)

On Monday morning, there was a reflection from the data collection process. The students described the shared their positive or negative experiences with other students, obstacles which they had to overcome and provide some recommendation for similar research. The requested format of final report was presented to the students: the contents and structure, each part was described so that the students were familiar with the contents that shall be add to each chapter.

In the afternoon the students got training in preparation of conference posters. In order to train it practically, they had to prepare the poster from one selected scientific article (one article for all groups) and present it to the others. The aim of this training was not only train the graphical work, but also to see the variety in final posters based on the same data set. There was the feedback from the academic staff for their posters. At the end of the session, the students were asked to prepare own poster with collected data which were presented on next day morning.



Generally, the design of the posters were nice, however the posters were characterized by the typical mistakes of beginners and broad spectrum of recommendations for improvement were mentioned by other groups as well as by the academic staff. Team work game (3 statements from agricultural fields) was played to support increasing of teambuilding capacity of the students as well as their knowledge. Each team was supposed to prepare 3 tricky statements from agricultural field – two true and one false and the other teams were supposed to identify the false one only with the help of few additional question.

At the end of the session, the students were trained in how to prepare good scientific presentation and afterwards the students prepared their own presentations from their own collected data set.

**Poster presentation,  
scientific writing -  
presentation  
(theory and practice)**

**DAY  
12**

**DAY  
13**

### **Oral presentation and management game**

Wednesday morning, the student presented their research outputs in form of oral presentation. The design of the presentations was very nice. The majority of the comments was oriented to the content of the presentations, the presentations often lacked the objective, the description of data collection procedure was unsatisfactory, the graphs and figures were not described, discussion part was often missing and conclusions usually equalled to results. The students were asked to improve their presentations for the final presentation on Friday. The lecture with practical recommendations how to write scientific article was given to the students. During the afternoon, the team working game was played (Marshmallow challenge).



**DAY  
14**

### **Processing of report**

On Thursday, the students were preparing their final report. The report was supposed to be a complete analysis of value chain management of their (selected) product in the range of the data from their field research. The report was supposed to be presented as a document accompanied with oral presentation.

## Closure of the programme before the last excursion

Each team presented their final report in front of the international committee composed by Chutima (PSU), Pornsiri (CMU), Petra, Olga (both CULS) and Oranutpa (KU). There were four issues considered: the final report, the poster, the oral presentation and the overall performance of the teams during the whole module. Each team went through rigorous series of questions and feedback comments. The committee selected the winner of the best presentation and the winner of the best report. The awardees were selected based on secret ballot among the members of the committee.

The dean of the Faculty of Agriculture (CMU) Associate Professor Dr.Nuttha Potapohn handed over the certificates for participation at the Module Value Chain management. After that, both students and organizing team gave the feedback and evaluation of the whole module, students filled in the online survey evaluation and organizers discussed their comments directly with the participants.



## Excursion to Royal Project Stations

The visits of two Royal Project Stations were organized on Saturday 25 and Sunday 26 August. Detail of each Royal Project Station are as follow: The Royal Agricultural Station Inthanon is His Majesty the King Personal Project for eliminating opium growing. Established in 1979, the Station serves as a research centre for a wide variety of the highland fisheries, in order to develop the livelihood of the hill tribe farmers. It also serves as a centre to disseminate knowledge and new innovation derived from the research of the sustainable highland farming to other regions.



### Learning Objective:

Understand the process of improving the quality of life of hill-tribe people by diminish their opium growing using sufficiency economy



Field trip to the Royal Project Station: Inthanon station  
Photos from: <http://www.inthanonroyalprojectthailand.com/>



DAY  
17

## Excursion to Royal Project Stations

The Royal Agricultural Station Pang Da is situated in Pang Da village, Samerng district, approximately 47km northwest of the city of Chiang Mai. The station has competency in serving the activities of temperate crop propagation and other research works. At present, Pang Da Station has expanded its implementation to the tropical fruit trees, flowers, beans, vetiver and rapid-growth woods, and also conducted the activity of career development to the farmers lives in the village nearby.

The students have learned the process of improving the quality of life of hill-tribe people by diminish their opium growing using sufficiency economy.





**Learning Objective:**

Understand the process of improving the quality of life of hill-tribe people using sufficiency economy.



## Evaluation by students

The participants evaluated the Value Chain Management Modulet positively. Following aspects were mentioned as the most valuable: i) the relationship and experience with friends from another place, ii) team-working activities and iii) field visits. The participants also recommended for improvement of the module to increase practical training activities, add some additional topics and cultural aspects (food, customs etc.).

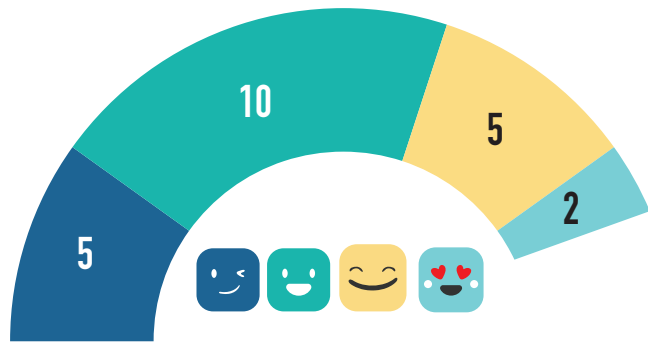


Figure 2: The participants' satisfaction scores: Value Chain Management Module.

- Excellent
- Very Good
- Good
- Satisfactory

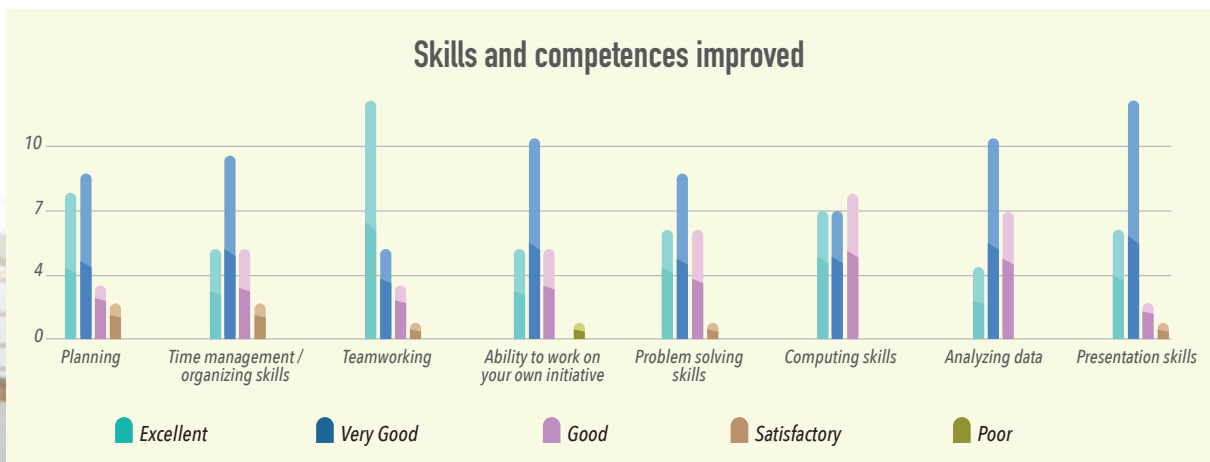


Figure 3: Improvement of skills and competences after participation at the Module






## 4. Practical recommendations

There are several practical issues which are highly recommended to follow during the organizing next modules.

- The participants of the module must have sufficient knowledge of English language.
- The European students should be informed in advance regarding the practical recommendations for appropriate dress code during the lectures (closed shoes and covered shoulders and knees).
- The group of Thai and Czech students prepared in advance the powerpoint in which they presented their country, university, faculties and also each student introduce himself/herself.
- During first day is recommended to play some icebreaking games to create friendly environment.
- The students fill in the questionnaire with the expectations and motivation why they participate the module.
- A tool for sharing the presentations and tasks with the students should be set up prior the beginning of the module.
- It is key point that the students have lots of practical examples. The level of English and background knowledge is extremely different among the group. Therefore the main attention should be given to the practical examples and tasks for the students. Long lectures are not recommended.
- The best practise is to divide the time for lecture, then practical exercise during morning part and some visit of farm or market, other practical experience or team work for afternoon session.
- It is not suitable to have lectures on Saturday, as the canteen is closed and there is no available food during the day (or maximum to have lectures only in the morning session).
- At the end, the student evaluate the whole module via anonymous online questionnaire.









**8.45-10.15**  
Registration of participants  
CMU

*Official opening, introducing the summer school objectives and introducing the participants*  
Chutima, Pornsiri and Petra short speech


15 Min 

**10.30-12.00**  
*A short presentation about CULS, and the projects in Asia*  
Students presentation about the Czech Republic, CULS, each participant

*Each student will introduce themselves and their background (maximum 10 mins/person with ppt)*  
Students presentation about Thailand, CMU, each participant


 **Lunchtime**

**13.00-14.30**  
*Ice breaking: a guided trip CMU*  
CMU organize, CULS participate


15 Min 

**14.45-16.30**  
*Team building activities (management game "African village")*  
Petra CULS


**WED 8**  
**AUGUST**



**8.45-10.15**  
*Value chain management*  
Petra CULS


15 Min 

**10.30-12.00**  
*Market orientation of Thailand markets*  
Pornsiri CMU

 **Lunchtime**


**13.00-16.30**  
*Local market visit*  
CMU organize, CULS participate

**THU 9**  
**AUGUST**




**FRI 10  
AUGUST**


**8.45-10.15**  
*Postharvest management for agribusiness  
and Food Quality*  
Olga CULS

15 Min 

**10.30-12.00**  
*Postharvest management for agribusiness Food Quality*  
Olga CULS


 **Lunchtime**

**13.00-16.30**  
*Visit the Royal Project Produce Centre*  
CMU organize, CULS participate




**SAT 11  
AUGUST**


**8.45-10.15**  
*Problem formulation, Methods and tools (Sampling)*  
Olga and Milda CULS

15 Min 

**10.30-12.00**  
*Format of the research proposal, Literature search*  
Olga and Milda CULS

 **Lunchtime**

**13.00-14.30**  
*Instructions for scientific news*  
Olga and Milda CULS

15 Min 

**14.45-16.30**  
*Students prepare own scientific news*  
Students own preparation




**SUN 12**

**DAY OFF**


**9.00-16.00**  
*Field trip to the melon farm and each group interview farmer*  
*Team work: data collection from sellers and producers*

**MON 13**  
**AUGUST**


**8.45-10.15**  
*Preparation for data collection for the Melon farm*  
*Petra and Milda CULS*

15 Min 

**10.30-12.00**  
*Scientific news discussions*  
*Olga and Milda CULS*

 *Lunchtime*


**13.00-14.30**  
*Scientific news discussions*  
*Olga and Milda CULS*

15 Min 

**14.45-16.30**  
*Students in teams prepare set of questions for interviews*  
*Team work: preparation for data collection*

**TUE 14**  
**AUGUST**





**WED 15**  
AUGUST

**8.45-10.15**  
*Marketing research methods (consumer behaviour)*  
Petra CULS  
15 Min

**10.30-12.00**  
*Preparation for field research*  
Team work: preparation for data collection

**Lunchtime**

**13.00-14.30**  
*Economic evaluation*  
Pornsiri CMU  
15 Min

**14.45-16.30**  
*Prepare for data collection according to research question related to economic point of view*  
Pornsiri CMU

**THU 16**  
AUGUST


**FRI 17**  
AUGUST

**SAT 18**  
AUGUST

**Whole day** *Field research: students in teams visit different markets and collect data with consumers*  
Team work: data collection from consumers

**SUN 19**  
**DAY OFF**









**8.45-10.15**  
*Reflection from field research - feedback from data collection by teams*  
 Petra and Milda CULS  
 15 Min


**10.30-12.00**  
*Discussion about collected data, how to analyse it*  
 Petra and Olga CULS

**Lunchtime**

**13.00-14.30**  
*Debate on selected topics (two teams, controversial topic, strong arguments)*  
 Petra and Olga CULS  
 15 Min

**14.45-16.30**  
*Debate on selected topics (two teams, controversial topic, strong arguments)*  
 Petra and Olga CULS





**8.45-10.15**  
*Scientific writing - poster, ppt presentation*  
 Olga CULS  
 15 Min


**10.30-12.00**  
*Scientific writing - poster, ppt presentation*  
 Olga CULS

**Lunchtime**

**13.00-14.30**  
*Poster preparation by teams*  
 Team work: poster preparation  
 15 Min

**14.45-16.30**  
*Poster preparation by teams*  
 Team work: poster preparation







WED 22  
AUGUST

8.45-10.15

*Scientific writing - how to write an article/thesis*

*Petra and Olga CULS*

15 Min



10.30-12.00

*Scientific writing - how to write an article/thesis*

*Petra and Olga CULS*



*Lunchtime*

13.00-14.30

*Poster preparation by teams*

*Team work: poster preparation*

15 Min



14.45-16.30

*Poster preparation by teams*

*Team work: poster preparation*



FRI 23  
AUGUST

**Whole day** *Preparation for the final report (manuscript including introduction, materials and methods, results, discussions and conclusions)*  
*Team work: final report preparation*





**8.45-10.15**  
*Presentation of the results by students' teams-  
 evaluation by staff*  
 Petra and Olga CULS

15 Min



**10.30-12.00**

*Presentation of the results by students' teams-  
 evaluation by staff*  
 Petra and Olga CULS



Lunchtime

**13.00-14.30**

*Evaluation of the module, closure of the module  
 with award certification ceremony*  
 Pornsiri CMU, Chutima and Petra and Olga CULS

15 Min

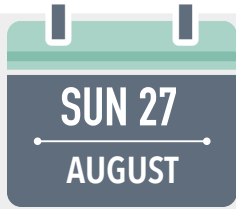


**14.45-16.30**

*Evaluation of the module, closure of the module  
 with award certification ceremony*  
 Pornsiri CMU, Chutima and Petra and Olga CULS



**Whole day** *Field trip to the Royal Project Station : Intanon station*  
 CMU



**Whole day** *Field trip to the Royal Project Station: Pangda station*  
 CMU







# INTENTION OF CUSTOMERS TO PAY MORE TO GET ORGANIC LETTUCE

Jana Tulková, Czech University of Life Sciences Prague, Czech Republic, Natthidech Beesa, Kasetsart university, Bangkok, Thailand, Warin Klakankhai, Prince of Songkla University, Songkhla, Thailand, Chankan Klinpratrum, Khon Kean University, Khon Kean, Thailand



## INTRODUCTION

Organic agriculture, a worldwide growth industry, can be a profitable, sustainable business for agricultural producers interested in going through the certification process necessary to enter this market. Organics have continued to expand during the last few years, and industry experts are forecasting steady growth of 9 percent or higher (OTA 2017). This is the main reason for establishment of this study, what could show demand of customers in Chiang Mai City for organic lettuce and how much is customer willing to spend for getting better quality lettuce.

## METHODOLOGY

The data for research have been collected through questionnaire-based survey. Within a questionnaire have been asked questions about gender, age, nationality, preferences for lettuce and the most favourite type of lettuce. For this purpose have been visualised 8 different types of lettuce (Fig. 1).



Figure 1. Visualisation of different types of lettuce in questionnaire

## RESULTS

A total of 104 questionnaires from consumers were analyzed. Results showed that the most responders have found Green Oak and Red Oak Leave lettuce as the most popular and often bought especially in age group 20-50 years old Thai and foreigners (Fig. 2)

In preference of buying lettuce prevails intention of diet, healthy lifestyle and also taste (Fig. 3). The majority of responders are willing to spend more money for getting higher quality goods, which is related to the healthy lifestyle. More than half of responded women would spend more than 70 Thai baths for organic lettuce (Fig. 4).

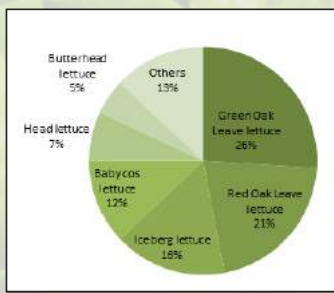


Figure 2. Preferences in type of lettuce consumed

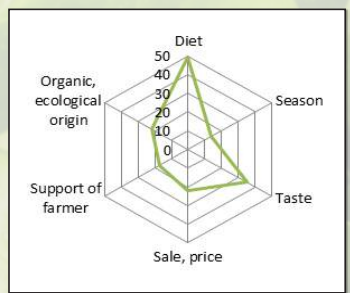


Figure 3. Intentions of consumers for buying lettuce

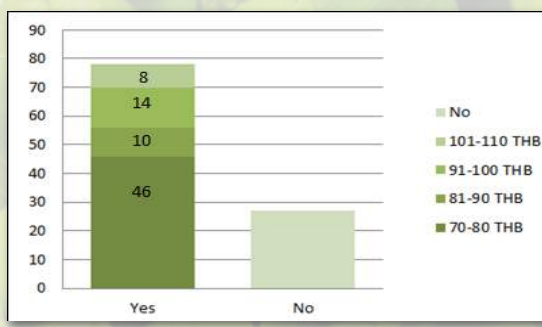


Figure 4. Willingness of customers for buying more expensive organic lettuce and amounts in Thai Baht (THB)

## CONCLUSION

The Green Oak lettuce have been by responders evaluated as the best possible option. More than half of responders would spend more to 70 THB to get higher quality lettuce, which brings to the farmer possibility to modify his production of lettuce to high demand for organic products. This could bring higher income and also make healthy lifestyle more suitable to customer.

## REFERENCES

Organic Production Survey, National Ag Statistics Service (NASS), USDA, 2017



# Preferences and consumer behavior of melon consumption

Keminee Tongma<sup>1/</sup>, Laksanaporn Sriyapunt<sup>1/</sup>, Chuleewan Bunchamni<sup>2/</sup>, Sornnarin Suangto<sup>2/</sup>, Magda Jirsova<sup>4/</sup>, Petra Chaloupkova<sup>4/</sup>, Olga Leuner<sup>4/</sup>, Pornsiri Suebpongsung<sup>3/</sup>

<sup>1/</sup>Prince of Songkla University, <sup>2/</sup>Khon Kaen University, <sup>3/</sup>Chiang Mai University, <sup>4/</sup>Czech University of Life Sciences Prague



## Introduction

The purpose of this project is to focus on significant questions about melon. Melon is one of the most important produce in Chiang Mai areas. Melon is fresh fruits especially in tropical countries as is Thailand and also is full of vitamins which are health for human body. The study give information on customers and their opinion about melon. It could be very useful for farmers who grow melon and their decision and plans for future.

## Methodology

1. Survey contents  
11 questions

2. Through online /  
In 5 market

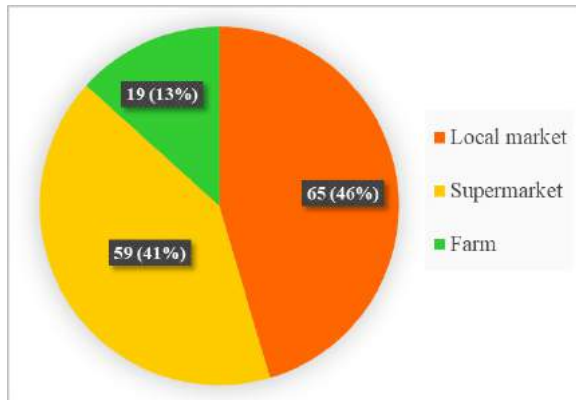
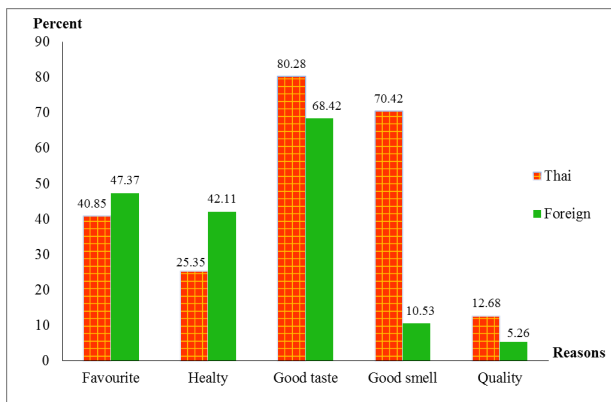


4. Data arrangement  
and analyzing

3. Total 102  
respondents



## Results



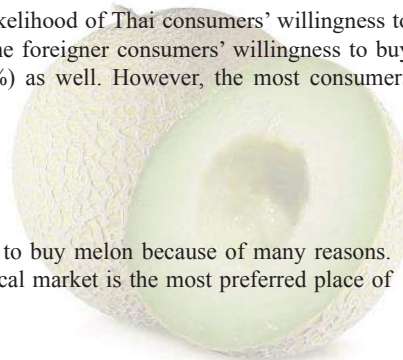
**Fig. 1** Reasons to buy a melon compare between Thai and foreigners.

**Fig. 2** Places the consumers buy melons from.

Using an questions for Chiang Mai consumers, our study shows that the likelihood of Thai consumers' willingness to buy fresh melon products because of good taste (80.28%) and smell (70.42%). The foreigner consumers' willingness to buy fresh melon products because of good taste (68.42%) and their favorite (47.37%) as well. However, the most consumers interest about buying melon in local market (46%) and supermarket (41%).

## Conclusion

In conclusion, study showed both Thai people and foreigners would like to buy melon because of many reasons. Taste and smell are important factors for their decision to buy melon products. Local market is the most preferred place of consumer to buy melons due to its convenience.



# CUCUMBERS CONSUMPTION IN NORTHERN THAILAND

David Syříštil<sup>[1]</sup>, Aleksandra Kaleova<sup>[2]</sup>, Apinya Saentho<sup>[3]</sup>, Nongnaphat Jongkrajjak<sup>[4]</sup>, Poramet Kaewprasert<sup>[5]</sup>

<sup>[1]</sup> Faculty of Economics and Management, Czech University of Life Sciences Prague, <sup>[2]</sup> Department of Plant Production, Faculty of Agrobiology, Food and Natural Resources, Czech University of Life Sciences Prague, <sup>[3]</sup> Department of Soil Science and Environment, Faculty of Agriculture, Khon Kaen University, <sup>[4]</sup> Department of Aquatic Science, Faculty of Natural Resources, Prince of Songkla University, <sup>[5]</sup> Department of Plant Science, Faculty of Natural Resources, Prince of Songkla University

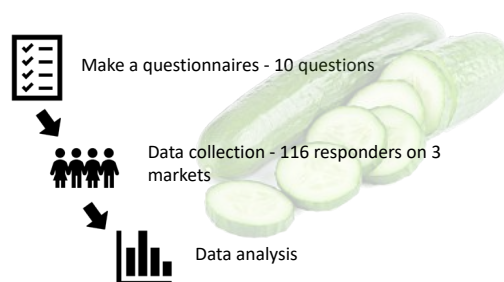
## 1 INTRODUCTION

Cucumbers are the eight most consumed vegetable in Thailand, after sweet corn, baby corn, chilli, big chilli, watermelon, yardlong bean and garlic, which makes it the first fresh salad vegetable from the list.

Our research deals with analyzing the consumers' attitude of cucumbers in Northern Thailand, more specifically in the Chiang Mai province. For this reason, data was collected from local markets and supermarkets where consumers were surveyed about their personal preferences of cucumber consumption. Data was collected in the form of a questionnaire. Data was later analyzed and main conclusions were made about consumers' preferences about cucumbers.

## 2 METHODS

A questionnaire was designed, composed of 10 questions in order to specify the consumers' preferences about cucumbers. Later our research moved to the local supermarkets and markets where data was acquired from 116 responders.



## 3 RESULTS

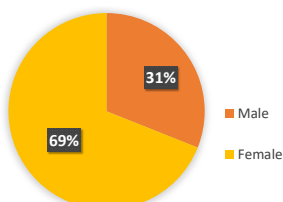


Fig 1. Responders' gender

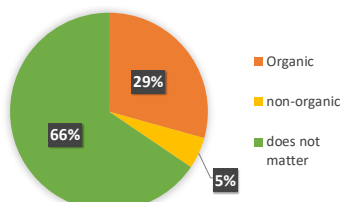


Fig 2. Responders' preference of organic cucumbers

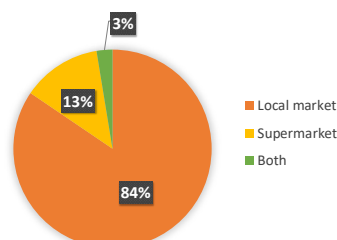


Fig 3. Responders' preferred location of buying cucumbers

Table1 Average of cucumbers production in 2017 in Northern Thailand

Province	Farmer's member	Harvesting area (rai)	Average yield / harvested area (kg)	Average farmer selling price (THB / kg)
Chiang Rai	157	314	4,306	10.76
Chiang Mai	204	392	2,345	14.19
Phayao	185	59	7,443	8.85
Nan	107	41	1,565	8.71
Phrae	10	9	1,144	16.01
Mae Hong Son	48	17	5,122	21.87
Lampang	143	37	462	31.61
Lamphun	9	11	918	20.25
Uttaradit	34	26	735	17.17

Source: DOAE, 2016

## 5 REFERENCE

Bunchay, P. (2016). *Data collection and reporting systems for plant production*. Centre for Information and Communication Technologies, Department of agriculture.

## 4 CONCLUSION

The data following about where consumers prefer to buy cucumbers might have been influenced by the fact that we visited only local markets, where almost everyone answered they buy cucumbers in the local markets. Probably the most striking was the fact that the people questioned did not make a strong preference about organic or non-organic produced cucumbers. One person, however, stated she would buy more often if there were less pesticides used during production. Therefore, if quality increases while prices stay stable, it is also likely that the consumption will increase.



# CONSUMER PREFERENCE OF FRESH TOMATOES IN CHIANG MAI



Chatnapa Nowat<sup>[2]</sup>, Chattamas Promdach<sup>[1]</sup>, David Zeman<sup>[4]</sup>, Jureeporn Sukhatiphum<sup>[2]</sup>, Seksan Duangsingtham<sup>[3]</sup>  
Prince of Songkla University<sup>[1]</sup>, Khon Kaen University<sup>[2]</sup>, Chiang Mai University, <sup>[3]</sup> Thailand  
Czech University Of Life Sciences <sup>[4]</sup>, Czech Republic



## INTRODUCTION



Since tomato is one of the most consumed vegetable worldwide, we have decided to find out more about consumer preference and shopping habits regarding tomatoes in Chiang Mai and its surroundings. Question in our questionnaire were focused on purchase, place of purchase and origin and type of tomatoes.

## METHODOLOGY



We have collected 102 questionnaires consisting of four questions during data collection. Majority of the questionnaires was collected personally from consumers at markets in Chiang Mai. The data were then processed and transferred into graphs to make the results more understandable.

## FIGURES

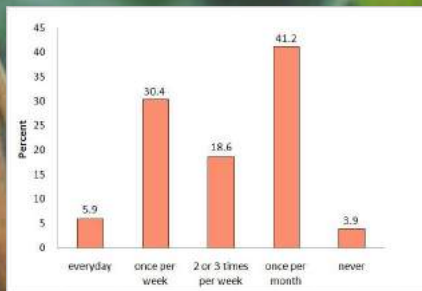


Fig. 1: Frequency of the purchase of tomatoes

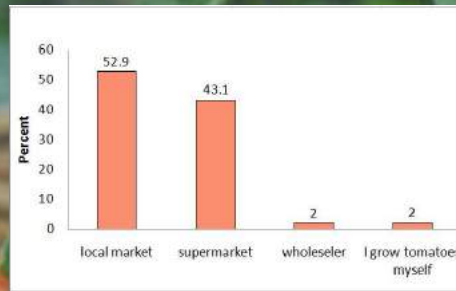


Fig. 2: Location of the purchase

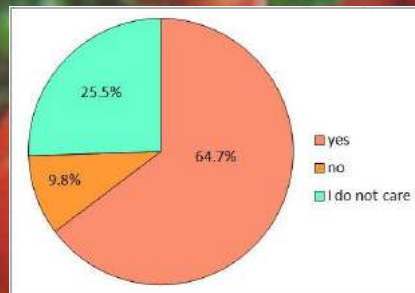


Fig.3: Preference of local grown tomatoes

## RESULTS and CONCLUSION



It is clearly visible from our results that the classic tomatoes are much more preferred over the Cheri tomatoes, since 70% of consumers answered positively for the classic tomatoes. Majority of respondents also prioritize local grown tomatoes and buy them at the local market or supermarket. The most variable question turned out to be the question of frequency of a purchase, where majority of the answers varied from once a week to once a month. These results show, that for a farmer it would be potentially most profitable to grow classic tomatoes locally and sell them at a local market or supermarket.

## REFERENCE



FAOSTAT. 2016. FAOSTAT DATA. <http://www.fao.org/faostat/en/#data> . Accessed 21.8.2018.

# PISAI's Students



*Miss Keminee Tongma*



*Miss Warin Klakankhai*



*Mr. Poramet Kaewprasert*



*Miss Laksanaporn Sriyapunt*



*Miss Jureeporn Sukhatiphum*



*Mr. Natthidech Beesa*



*Miss Chattamas Promdach*



*Miss Chanikarn Klinpratun*



*Miss Nongnaphat Jongkrajja*



*Miss Niyaporn Khwanket*



*Miss Chatnapa Nowat*



*Mr. Sornnarin Suangto*



*Mr. Seksan Duangsingtham*



*Miss Wantanee Meelun*



*Mr. David Syřiště*



*Miss Chuleewan Bunchamni*



*Mr. Šimon Klimuškin*



*Miss Apinya Saentho*



*Miss Magda Jirsová*



*Miss Aleksandra Kaleova*



*Miss Jana Tulková*



*Miss Sanni Toratti*

