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ජාතික ප්‍රතිපත්ති හා ආර්ථික කටයුතු අමාත්‍යාංශය
මහලේකම් කාර්යාලය (3 වැනි මහල), ඔ.පෙ. 277, කොළඹ 00100, ශ්‍රී ලංකාව
தேசிய கொள்கைகள் மற்றும் பொருளாதார அலுவலர்கள் அமைச்சு,
கேள்யலகம் 3 ஆம் மாடம், த பெ இல 277, கொழும்பு 00100, இலங்கை.
Ministry of National Policies and Economic Affairs
The Secretariat (3rd Floor), P.O. Box 277, Colombo 00100, Sri Lanka

Web Site: www.erd.gov.lk

e-mail: info@erd.gov.lk

මගේ අංකය
எனது இல
My No

UN,TA&NGO/C-PLAN
/S/255

මගේ අංකය
உமது இல
Your No.

දිනය
திகதி
Date

20-03-2017

Secretary/ Ministry of Agriculture
Secretary/ Ministry of Provincial Councils & Local Government
Secretary/ Ministry of Primary Industries

Attn: Officer In-charge of Foreign Training

Dear Sir/Madam

**Post-harvest technology of fruit & vegetable crops for developing countries
-From 22nd May to 02nd June 2017**

The Colombo Plan Secretariat has invited nominations from eligible government officials in Sri Lanka for the above training programme. Programme details and the application form are attached.

You are kindly requested to submit one nomination along with the following documents **on or before 07th April 2017.**

1. Duly filled Application Form (original and 2 copies)
2. Duly filled ERD Form 2 (original only. It can be downloaded from www.erd.gov.lk)
3. Copy of the Passport

Your early response in this regard is highly appreciated.

Yours faithfully


Noor Rizna Anees
Addl. Director General
for Director General

P g T Closing Date 31/03/2017

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பணிப்பாளர் நாயகம்
Director General

94-11-2484693
94-11-2434876

කාර්යාලය
அலுவலகம்
Office

94-11-2484500
94-11-2484600
94-11-2484724

ෆැක්ස් අංකය
தொலை நகல்
Fax

94-11-2447633

Chief Secretary's, All Provincial Councils
Director General, Department of Export Agriculture
Director General, Department of Agrarian Development
Director General, Department of Agriculture
Director General, Department of Agrarian Development
Chairman, Agricultural Development Authority
Chairman, Fruit Development Board
Chairman, Vegetable Development Board

} Pl. Submit your applications with recommendation of the relevant line Ministry

International Training Course

Course Title

Postharvest Technology of Fruit and Vegetable Crops for Developing Countries

Duration

2 weeks during

(22 May - 2 June, 2017)

Background and Rational

Recent regional economic growth and changes in dietary patterns have made both the production and consumption of fruits and vegetables increasingly important. The fruit and vegetable sector has a vital role in farm income enhancement, poverty alleviation, food security, and sustainable agriculture in Asia, especially in developing countries. This sector, however, suffers greatly from postharvest losses. Some estimates suggest that about 30-40% of fruits and vegetables are lost or abandoned after leaving the farm. Huge postharvest losses result in diminished returns for producers. Obviously, postharvest management determines food quality and safety, competitiveness in the market, and the profits earned by producers. The postharvest management of fruits and vegetables in most developing countries in the region is inappropriate and far from satisfactory. The major constraints include inefficient handling and transportation; poor technologies for storage, processing, and packaging; involvement of too many diverse actors; and poor infrastructure. Prevention of postharvest losses therefore is a major importance for global food and nutritional security.

Center of excellence in postharvest technology, Naresuan University is one of the leaders in postharvest technology research and extension in Thailand. We have the staffs who graduated from aboard (USA, Australia and Japan) and expertise in teaching and research work with government and private companies including SME. Moreover, we have good and modern facilities for laboratory works and lecture rooms located in lower northern part in Thailand that has the largest production area of fruits and vegetables. From this reasons, we would like to organize this training course in Naresuan university with collaboration with staffs from Postharvest innovation center, Commission of higher education, Ministry of Education, Thailand (Chiang Mai university).

Objectives

The training course aims to:

- provide basic scientific knowledge of the principles and concepts of postharvest technology of fruits and vegetables for developing countries.
- enhance knowledge and understanding of how to select appropriate technology to reduce losses and maintain the qualities of fruits and vegetables
- upgrade human capacities in transferring technology to needed party
- promote collaboration, communication and further a professional network among participants

Course contents

Course outline (1st week)

Intensive Lecture and Discussion

- Postharvest losses and health effects of fruit & vegetables

- Sources of online postharvest information
- Main factors determining postharvest quality in fruits and vegetables
- Relation between pre-harvest conditions, harvest maturity and postharvest performance
- Taste and aroma of fruit and vegetable
- Tools for quality evaluation, including sensory evaluations
- Ethylene biology
- Ripening of tropical fruits
- Senescence of vegetables
- New storage systems, temperature and ethylene management
- Physiological and technical aspects of cold storage and refrigerated transport
- Demonstrations and hands-on activities on storage facilities, packaging methods and measurements of quality characteristics
- Transport: systems, loading patterns, environmental control, use of modified atmospheres
- Sanitation and other procedures related to decay and insect control; food safety assurance
- Standardization and inspection, quality evaluation and control
- Harvesting and postharvest handling systems for various commodity groups
- Marketing fresh produce: socioeconomic and environmental consideration
- Case studies based on participant requests

Field study (2nd week)

- The optional second week (Monday through Friday) is an extensive field tour covering a wide variety of postharvest operations.
- Packinghouses

Venue

- Akathosalod seminar room, Naresuan university, Phitsanulok
- Center of excellence in postharvest technology, Naresuan University, Phitsanulok

Expected results

The expected outcomes are as follows:

- Understanding of Postharvest Technology of Fruits and Vegetables for developing country
- The ability to apply the concepts and practical knowledge
- Successful networking among participants which will potentially lead to future collaboration

Evaluation

The organizer will take note of continuous attendance of the lectures, stimulating discussions and participation in hands-on field exercises to determine the success of the training. Questionnaires will be given to each participant on the first and last day of the training course.

Institution

Implementing Agency

- This training course will be conducted by Center of excellence in post-harvest technology, Naresuan University
- Course leader: Assist. Prof. Dr. Peerasak Chaiprasart (Ph.D. in Agricultural Science) who has a life-long experience in postharvest research on fruits and vegetables, both at the fundamental as well as applied levels. His main focus is on quality of fruits and vegetables in the distribution chain and on technological developments to improve quality and shelf life of fresh produce. He also teaches "postharvest technology and management of Horticultural crops" in Bachelor, Master and Ph.D degree level.
- NU Staffs are Assist. Prof. Dr. Mayuree Krajayklang (Ph.D. in Post-harvest physiology), Assist. Prof. Dr. Sirirat Sangyong (Ph.D in Plant pathology), Assoc. Prof. Dr. Udornporn Pengnakorn (Ph.D in Entomology)

Contact person

Assist. Prof. Dr. Peerasak Chaiprasart, Center of excellence in postharvest technology, Naresuan University, 99/9 Nakhonsawan-Phitsanulok Road, Amphur Muang District, Phitsanulok,
Tel. 055-963014, Fax. 055-963015

- cooling and storage facilities
- produce distribution centers
- field harvest operations, packing, and transportation facilities in various locations in northern and central part of Thailand such as Royal agricultural station, Angkhang and Royal project-packing house, Chiang-Mai and P&F technology company in Bangkok

Advance Assignment

Country Report Participants will be required to submit country report to the course coordinator at the first day of class as well as to present country report to the class at the fifth day of training. The country report should be followed country report format guideline of Thailand International Cooperation Agency (TICA). The topics are as follows postharvest losses of fruits and vegetables, the recent developments in the management of postharvest losses in fruits and vegetables and reference.

Number of Participants

- 20 participants

Participants Criteria

- 20 participants for this course should be nominated by their respective government.
- Age: less than fifty (50) years old;
- Education: equivalent to a bachelor degree (B.Sc.) of university/technical college on food science, agricultural science, biotechnology, agricultural processing, agricultural product development, or have at least 5 years of related work experience
- Language: proficiency in English (speaking, reading and writing).
- Health must be good in both physical and mental, each participant should have a health certificate provided by an authorized physician of national hospital.
- Pregnancy is regarded as a disqualifying condition for participation in the course.

Postharvest Technology of Fruit and Vegetable Crops for Developing Countries

22 May - 2 June, 2017

Date	Contents	Place
Intensive Lecture and Discussion		
2017	<ul style="list-style-type: none"> • Postharvest losses and health effects of fruit & vegetables • Sources of online postharvest information • Main factors determining postharvest quality in fruits and vegetables • Relation between pre-harvest conditions, harvest maturity and postharvest performance 	Naresuan University
2017	<ul style="list-style-type: none"> • Taste and aroma of fruit and vegetable • Tools for quality evaluation, including sensory evaluations • Ethylene biology • Ripening of tropical fruits • Senescence of vegetables 	Naresuan University
2017	<ul style="list-style-type: none"> • New storage systems, temperature and ethylene management • Physiological and technical aspects of cold storage and refrigerated transport • Demonstrations and hands-on activities on storage facilities, packaging methods and measurements of quality characteristics 	Naresuan University
2017	Relax	
2017	<ul style="list-style-type: none"> • Transport: systems, loading patterns, environmental control, use of modified atmospheres • Sanitation and other procedures related to decay and insect control; food safety assurance • Standardization and inspection, quality evaluation and control 	Naresuan University
2017	<ul style="list-style-type: none"> • Harvesting and postharvest handling systems for various commodity groups • Marketing fresh produce: socioeconomic and environmental consideration • Case studies based on participant requests 	Naresuan University

Date	contents	Place
Field study		
	<ul style="list-style-type: none"> • Packinghouses • cooling and storage facilities • field harvest operations, packing, and transportation facilities in various locations in northern and central part of Thailand such as Royal agricultural station, Angkhang and Royal project packing house, Chiang Mai 	Chiang-Mai
2017	<ul style="list-style-type: none"> • produce distribution centers 	Thai Airways
2017	<ul style="list-style-type: none"> • field harvest operations, packing, and transportation at P&F technology company in Bangkok. 	Bangkok



Please affix
1 passport
Photograph

FOR OFFICIAL USE ONLY

Reference no:.....
Received:.....
Checked:.....

Training course on "Post harvest technology of fruit and vegetable crops for developing countries", under the TICA- Colombo Plan Cooperation, from 22 May- 2 June, 2017

APPLICATION FORM (typewriting or block letters)

TITLE OF COURSE: Subject: <u>"Post harvest technology of fruit and vegetable crops for developing countries", Thailand, 22 May- 2 June, 2017</u>	Course Duration: <u>22 May- 2 June, 2017</u>
NAME OF TRAINING INSTITUTION: TICA & Naresuan University, Thailand	(Application should be sent to Colombo Plan on or before 17 April 2017)

1. PERSONAL DATA

Family name (surname)	Date of birth		
	Day	Month	Year
First Name	Nationality (citizenship):		
Other names	Gender: Male/Female #		
City and country of birth	Marital status: Single/Married/Divorced/Widowed #		
Passport No:	Religion:		

#Delete accordingly

2. COMMUNICATION AND MAILING ADDRESS

Applicant's Office Address:				Applicant's Postal/ Home Address:			
				Home telephone			
				Country	Area	Number	
Office telephone		Telefax		Email			
Country	Area	Number	Country	Area	Number		
Mobile							
Person to be contacted in case of emergency, name, telephone and address							

3. **EDUCATION** (list in order of time, starting with last institution attended)

Name of institution and place of study	Major field of study	Years of study: from - to	Degree

(Please attached a copies of the certificates)

4. **EMPLOYMENT RECORD**

A. Present or most recent post	B. Previous positions held
Employer:	Employer:
Years of service (from - to):	Years of service (from - to)
Title of your post/position:	Title of your post/position:
Present salary per month (US Dollars):	Salary per month (US Dollars):
Name of supervisor and title:	Name of supervisor and title:
Type of organization: Government /Semi Government/ Private/ NGO #	Type of Organization Government/ Semi Government/ Private/ NGO #
Main functions of organization:	Main functions of organization:
Total number of employees:	Total number of employees:

Delete accordingly

Description of your work including your responsibility:

Please continue on supplementary pages if necessary

5. REASONS FOR APPLYING THIS COURSE

Please state briefly the reasons for applying to this course and how you hope to benefit from the programme.

Please continue on supplementary pages if necessary

Have you participated in any Indian training programme under TCS-Colombo Plan before: YES/ NO #

Name of course

Name of Training Institute

Year

Delete accordingly

6. CERTIFICATION OF ENGLISH LANGUAGE PROFICIENCY (PARTICIPANTS MUST FILL ALL THE INFORMATION IN THIS SECTION)

	Excellent	Good	Fair	Basic	Remarks
Listening					
Speaking					
Writing					
Reading					

Mother tongue: _____

Language test administered by : _____

Title : _____

Address : _____

Tel. Number : _____

E mail : _____

Date and signature : _____

7. **MEDICAL REPORT** (to be completed by an authorized physician, All the fields must be filled)

Name of Applicant:			
Age:	Sex:	Height: cm	Weight Kg
Blood Group: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> AB <input type="checkbox"/> O			
Blood Pressure:			
Is the person examined at present\ in good health?		Is the person examined physically and mentally able to carry out intensive training away from home?	
Pre-prandial Blood Sugar		Post-prandial Blood Sugar	
Is the person free of infectious diseases (Tuberculosis, Trachoma, Yellow Fever, Hepatitis A, B and skin diseases etc.)?		Does the person examined have any condition or defect (including teeth) which might require treatment during the course?	
List any abnormalities indicated in the chest X ray.		Pregnancy Test (for women): (optional)	
<p>I certify that the applicant is medically fit to undertake this course.</p> <p>Name and the registration : No. of the Physician</p> <p>Address of Clinic : (printed)</p> <p>Telephone : (printed)</p> <p>E mail : _____</p> <p>Signature of Physician : _____</p> <p style="text-align: right;">Date: _____ Seal of Clinic: _____</p>			

8. **FOOD PREFERENCES IF ANY:**.....

9. **DECLARATION**

Have you ever been convicted by a Court of Law of any country? **Yes/ No #**
 If yes, please give brief details:

I certify that my statements in answer to the foregoing questions are true, complete and correct to the best of my knowledge and belief.

If accepted for a training award, I undertake to:-

- (a) Carry out such instructions and abide by such conditions as may be stipulated by both the nominating government and the host government in respect of this course of training;
- (b) Follow the course of study or training, and abide by the rules of the institution in which I undertake to study or train;
- (c) Refrain from engaging in political activities, or any form of employment for profit or gain;
- (d) Submit any progress reports which may be prescribed; and
- (e) Return to my home country promptly upon the completion of my course of study or training.

I also fully understand that if I am granted an award it may be subsequently withdrawn if I fail to make adequate progress or for other sufficient cause determined by the host Government.

Signature of applicant:

Name:

Date:.....

Delete accordingly

10. **OFFICIAL DECLARATION (to be completed by the nominating government. All the fields must be filled)**

The Government of:

nominates

(name of applicant)

For the course under the TICA- Colombo Plan Cooperation Programme certifies that:

- (a) all information supplied by the nominee is complete and correct;
- (b) the nominee had adequate knowledge and was appropriately tested for English Language proficiency.

Remarks:

 (Name)

 (Signature of responsible Government Official)

Address of Department/ Ministry:

 (Designation)

Official Seal/ Stamp:

Office Telephone number: _____

Office Fax number: _____

E mail: _____

Date: _____

Please note: This application form must be duly completed and endorsed by the Ministry of Foreign Affairs or the relevant agency responsible for the CPS programme in your country. Application should be submitted to Colombo Plan Secretariat through the respective National Focal Point **ONLY**. **INCOMPLETE AND/ OR UNENDORSED FORMS WOULD NOT BE PROCESSED.**