

FSC Short Course 2019- Thailand

Topic: Drying of Medicinal Plants

Duration: Monday 16th – Friday 20th, September 2019

Number of Participants: 35 persons

(Ph.D. students, Master students, the 4th year bachelor students, lecturer, enterprises)

Invited Speaker:

Professor Dr. Joachim Müller

Agricultural Engineering in the Tropics and Subtropics (440e)

University of Hohenheim

Stuttgart, Germany

Host University

Department of Food Technology

Faculty of Engineering and Industrial Technology

Silpakorn University, Nakhon Pathom, 73000 Thailand

Thai partner

Assist. Prof. Busarakorn Mahayothee

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FSC Contact person (Thailand)

Dr. Chanwit Kaewtapee

Department of Animal Science

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Background

South-east Asian countries like Thailand and Malaysia have a long history of using medicinal plant that offer considerable pharmaceutical potential. Medicinal plants known as samunphrai in the local Thai language have long been used as a traditional source of healing in Thailand. For example, cassumunar ginger and turmeric have anti-inflammatory properties. The oil of many Thai medicinal plants is used for massage therapy to help joint and muscle problem. Drying is the most common and fundamental method for post-harvest preservation of medicinal plants. However, in Thailand sun drying which is poor hygiene and high contamination is often used for drying medicinal plants. Therefore, the fruitful knowledge on drying of medicinal plants is crucial for strengthen the proper postharvest preservation and the application of medicinal plants in Thailand as well as South-east Asia.

Time Schedule

Day	Date	Time	Topic	Lecturer
Mon	16.09.2019	09.00 - 10.00 10.00 - 11.00 11.00 – 11.30 11.30 – 12.30 12.30 – 13.30 13.30 – 16.30	Introduction to University of Hohenheim Introduction to Drying Technology Break Psychrometrics Lunch Psychrometrics (PC-Practical)	Prof. Müller
Tue	17.09.2019	09.00 – 10.30 10.30 – 10.45 10.45 – 12.00 12.00 – 13.00 13.00 – 14.00 14.00 – 14.30 14.30 – 16.30	Sorption Isotherm Break Sorption Isotherm (PC-Practical) Lunch Sorption Isotherm (PC-Practical) Break Drying of Medicinal Plants – Laboratory	Prof. Müller Assist.Prof.Mahayothee
Wed	18.09.2019	09.00 – 10.30 10.30 – 10.45 10.45 – 12.00 12.00 – 13.00 13.00 – 14.00 14.00 – 14.30 14.30 – 16.30	Drying of Medicinal Plants Break Drying of Medicinal Plants (Drying curves-PC-Practical) Lunch Drying of Medicinal Plants (Drying curves-PC-Practical) Break Laboratory on essential oil extraction and analysis of bioactive compounds in medicinal plants	Prof. Müller Assist.Prof.Mahayothee
Thu	19.09.2019	08.00 – 17.00	Excursion Visit to the drying medicinal plants factory in Prachup khiri khan province, Thailand	Prof. Müller/ Assist.Prof.Mahayothee
Fri	20.09.2019	09.00 – 10.00 10.00 – 12.00 12.00 – 13.00 13.00 – 16.00	Quality Summary (Students Presentation and Discussion) Lunch Course evaluation	Assist.Prof.Mahayothee Prof. Müller Prof. Müller/ Assist.Prof.Mahayothee