

ที่ วท 5402/ว. 2481

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22 ธันวาคม 2558

28 S.A. 2558

เรื่อง ขอเรียนเชิญเข้าร่วมการสัมมนาและการอบรมเชิงปฏิบัติการ

เรียน คณบดี

คณะทรัพยากรธรรมชาติและอุตสาหกรรมเกษตร มหาวิทยาลัยเกษตรศาสตร์ วิทยาเขตเฉลิมพระเกียรติ จังหวัดสกลนคร

สิ่งที่ส่งมาด้วย เอกสารประชาสัมพันธ์การจัดงาน

ด้วย ศูนย์พันธุวิศวกรรมและเทคโนโลยีชีวภาพแห่งชาติ และฝ่ายบริหารคลัสเตอร์และโปรแกรมวิจัย สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ กระทรวงวิทยาศาสตร์และเทคโนโลยี ร่วมกับสถาบันวิจัยเทคโนโลยีเกษตร มหาวิทยาลัยเทคโนโลยีราชมงคลล้านนา ลำปาง Agricultural Research Organization และ Ben-Gurion University of the Negev ประเทศอิสราเอล กำหนดจัดการสัมมนาและการอบรม ดังนี้

- 1) การสัมมนา เรื่อง Technologies for Agriculture in Dryland: Case Study from Israel ในวันที่ ศุกร์ที่ 29 มกราคม 2559 ณ อาคารไบโอเทค อุทยานวิทยาศาสตร์ประเทศไทย จ.ปทุมธานี โดยมีวัตถุประสงค์เพื่อให้ผู้เข้าร่วมการสัมมนารับทราบข้อมูลความก้าวหน้าของเทคโนโลยีและวิธีปฏิบัติในการทำการเกษตรในพื้นที่แห้งแล้งจากนักวิจัยอิสราเอลซึ่งมีความเชี่ยวชาญในเรื่องดังกล่าว (ไม่มีค่าใช้จ่ายในการลงทะเบียน)
- 2) การอบรมเชิงปฏิบัติการ เรื่อง Drip Fertigation: Melon Model วันจันทร์ที่ 1 – วันศุกร์ที่ 5 กุมภาพันธ์ 2559 ณ สถาบันวิจัยเทคโนโลยีเกษตร มหาวิทยาลัยเทคโนโลยีราชมงคลล้านนา ลำปาง จ.ลำปาง โดยมีวัตถุประสงค์เพื่อถ่ายทอดเทคโนโลยีการให้น้ำแบบน้ำหยด (Drip Irrigation) และการให้ปุ๋ยทางระบบการให้น้ำ (Fertigation) เพื่อการประยุกต์ใช้ และเพื่อเพิ่มพูนความรู้ด้านเทคโนโลยีให้ปุ๋ยทางน้ำในระดับที่ก้าวหน้าต่อไป (ค่าลงทะเบียนสำหรับบุคคลทั่วไป 6,500 บาท และนักศึกษา 5,500 บาท)

ในการนี้ ศูนย์ฯ ได้พิจารณาแล้วเห็นว่า การสัมมนาและการอบรมเชิงปฏิบัติการดังกล่าวน่าจะมีประโยชน์ต่อท่านและ/หรือบุคลากรในหน่วยงานของท่าน ศูนย์ฯ จึงใคร่ขอเรียนเชิญท่านและ/หรือบุคลากรในหน่วยงานเข้าร่วมงานดังกล่าว (ข้าราชการสามารถเบิกค่าลงทะเบียนได้และไม่ถือเป็นวันลา) หากท่านหรือบุคลากรในหน่วยงานของท่านสนใจเข้าร่วมงาน กรุณากรอกแบบลงทะเบียนและส่งกลับมายังศูนย์ฯ ภายในวันที่ 15 มกราคม 2559

จึงเรียนมาเพื่อโปรดพิจารณา และขอความร่วมมือประชาสัมพันธ์การจัดงาน ให้ผู้สนใจทั่วไปได้ทราบด้วย จะขอบคุณยิ่ง

ขอแสดงความนับถือ



(นางสาวลิลี่ เอื้อวิไลจิตร)

รองผู้อำนวยการ

ศูนย์พันธุวิศวกรรมและเทคโนโลยีชีวภาพแห่งชาติ

หน่วยฝึกอบรม

โทร. 0 2564 6700 ต่อ 3379 – 3382

โทรสาร 0 2564 6574





אגודה
NSTDA

BIOTEC
a member of NSTDA



Ben-Gurion University
of the Negev

Seminar on Technologies for agriculture in dryland: Case study from Israel

Date: 29 January 2016

Venue: Auditorium, BIOTEC Building, Thailand Science Park, Pathum Thani

Organized by: Cluster and Program Management Office (CPMO)
National Center for Genetic Engineering and Biotechnology (BIOTEC)
National Science and Technology Development Agency (NSTDA)
Ministry of Science and Technology (MOST)

In Collaboration with: Agricultural Research Organization, Israel
Ben-Gurion University of the Negev, Israel

Rational Background:

Some 95% of Israel is dry sub-humid, semi-arid, arid or hyper-arid, with 60% of the country's land area covered by the Negev Desert. Thus Israel is almost entirely comprised of drylands accompanied by the ever-present threats of soil degradation and desertification.^[1] Water and fertile land in the country are always scarce.

Ironically, the country is now a world leader in agricultural technology, particularly in farming in arid conditions, and stands among the highest in productivity per unit for many produces. How they can transform the disadvantage factors into advantages? Would it come from their creative and inventive cultures? (Israel ranked number 4 globally in capacity for innovation and number 1 in quality of scientific research institutions)^[2] or from their close relationship between research scientists, farmers, and agro-industries? or from miracle? or everything altogether?

This is why it is very much interesting to learn from their experience. How a country had been working to overcome a challenge of the harsh and unfriendly environment and natural resources for the agriculture. Particularly, when the drought problem has severely encroaching on the agricultural areas in Thailand while the population number growing bigger every year. The knowledge, methodologies, research experience, and best practice from Israel may give us some idea for our better preparation for our future agricultural practice and natural resources utilization and management.

^[1] Desertification: Israel's National Report to the CSD (CSD-16/17)

^[2] WEF Global Competitiveness Report 2013-2014

Aims:

- To enable Thai participants to explore the updated technologies and best practice from Israeli research scientists in agriculture for dry/ drought conditions.
- To provide an opportunity for the Thai participants and Israeli research scientists in exchanging their experiences in agricultural practice and research.
- To provide an opportunity for research collaboration and promote a bilateral relationship between people from the two countries

Speakers:

- Dr. Naftali Lazarovitch Ben-Gurion University of the Negev, Israel
CV: <http://in.bgu.ac.il/en/bidr/FAAB/Pages/lazarovi.aspx>
- Dr. Uri Yermiyahu Agricultural Research Organization, Gilat Research Center, Israel
CV: <http://www.agri.gov.il/people/634.aspx>

Language:

The lecture will be given in English without translation.

Registration fees:

Free of Charge

Registration deadline:

15 January 2016

General information:**Public transportation to the venue****Air-conditioned bus routes:**

- No. 29 (Bangkok Railway Station - Thammasart University, Rangsit)
- No. 39 (Grand Palace - Thammasart University, Rangsit)
- No. 510 (Victory Monument - Thammasart University, Rangsit - Thai Market)

Air-conditioned van routes:

- No. 118 (Mo Chit BTS Sky Train Station - Thailand Science Park)
- No. 85 (Victory Monument - Thammasart University, Rangsit)

Accommodation

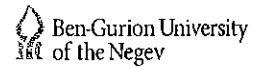
You are responsible for making your own arrangements.

Suggested accommodation:

- Sirindhorn Science Home (Located in Thailand Science Park)
 - Dormitory (2 beds) 1,000 Baht/ night including Breakfast
 - Dormitory (4 beds) 1,500 Baht/ night including Breakfast
 - Deluxe room (2 beds) 1,500 Baht/ night including Breakfast
 - Tel: (66) 2529 7100 ext. 77235 Fax: (66) 2529 7147
 - Website: http://www.nstda.or.th/ssh/service/service_1.php
- Institute of East Asian Studies (A 10-minute-walk from Thailand Science Park)
 - Twin room (2 beds) 950 Baht/ night not include Breakfast
 - Tel: (66) 2564 5000 - 3
 - Website: http://www.asia.tu.ac.th/ieas/ieas_buiding.htm

Program:

Date/Time	Title	Lecturers
Friday, 29 January 2016		
13:30 - 14:00	Registration	
14:00 - 14:45	Lecture on "Water, solute, and heat movement in the root zone: From measurements and models towards optimizing irrigation scheduling"	Dr. Naftali Lazarovitch
14:45 - 15:00	Q&A	
15:00 - 15:30	Coffee break	
15:30 - 16:15	Lecture on "Integrative view of plant nutrition"	Dr. Uri Yermiyahu
16:15 - 16:30	Q&A	



Workshop on Drip Fertigation: Melon Model

Date: 1 – 5 February 2016

Venue: Agricultural Technology Research Institute,
Rajamangala University of Technology Lanna Lampang (RMUTL), Thailand

Organized by: Cluster and Program Management Office (CPMO)
National Center for Genetic Engineering and Biotechnology (BIOTEC)
National Science and Technology Development Agency (NSTDA)
Ministry of Science and Technology (MOST)

In Collaboration with: Agricultural Research Organization, Israel
Ben-Gurion University of the Negev, Israel
Agricultural Technology Research Institute, Rajamangala University of
Technology Lanna Lampang (RMUTL), Thailand

Rational Background:

Water and Plant nutrient are the most essential factors for optimal yield and quality of agricultural produces. However, daily demand of water and nutrients required by each specific crop at each specific growth stage can be varied substantially. In order to utilize the resources and expect for the result to the fullest, it is widely accepted that fertigation (fertilization + irrigation = the application of plant nutrients through the irrigation system) is "a must" method.

Fertigation is not only the best method to correctly and specifically apply fertilizers to irrigated crops, but also the key to various benefits e.g. maximizing crop and soil productivity, maximizing fertilizer efficiency, and better usage of marginal land (sandy, rocky, shallow or salt affected soils). Although fertigation has been practiced more and more extensively in commercial agricultural farms, the technique need to be learned and developed regularly to achieve maximum efficiency better reliability and suitability to each crop and plantation.

Aims:

- To enable the Thai participants in learning the fundamental knowledge, methodologies, research experience, and best practice in progressive irrigation & fertigation technology and application by Israeli scientists.
- To practice on the given exercises both in the class and field regarding drip irrigation system, sensors assembly, fertigation calculation, measurement and operation.

Speakers

- **From Israel**
 - Dr. Naftali Lazarovitch Ben-Gurion University of the Negev
CV: <http://in.bgu.ac.il/en/bidr/FAAB/Pages/lazarovi.aspx>
 - Dr. Uri Yermiyahu Agricultural Research Organization, Gilat Research Center
CV: <http://www.agri.gov.il/people/634.aspx>
- **From Agricultural Technology Research Institute (ATRI), Rajamangala University of Technology Lanna Lampang (RMUTL), Thailand**
 - Assoc. Prof. Dr. Chiti Sritontip
 - Asst. Prof. Dr. Sanchai Panthachod
 - Asst. Prof. Dr. Sawit Meechoui
 - Dr. Wirat Ampun

Language:

The whole course will be given in English without translation. However, a brief summary in Thai will be given in the last session of each day.

Number and Targeted Participants:

Expected participants are 60 persons who are from the following organizations:

- a) Seed Company
- b) Irrigation supply company
- c) Fertilizer company
- d) Private farms
- e) Public organization
- f) University
- g) Research institutes
- h) Department of Agriculture/Department of Agricultural Extension, Ministry of Agriculture and Cooperatives

Background of targeted participants:

- Most of participants should be familiar with irrigation system. Certain experience/ knowledge in Fertigation would be an advantage in sharing with other participants in the course
- Good command of English (all the program will run in English without translation)

Registration fees:

These fees are inclusive of 7% VAT, lunch and refreshment each day, workshop material and handout. However, all of the participants must be responsible for their own accommodation and transportation.

- General THB 6,500
- Student THB 5,500

Payment:

Payment method is wire transfer, please make a payment to

Bank Name: Bangkok Bank, Thailand Science Park Branch
Savings Account Name: BIOTEC - National Center for Genetic Engineering and Biotechnology
Account No.: 080-0-002800
Swift Code: BKKBTHBK
Bank Code: 0080
Address: 111 Phahonyothin Road, Khlong Nueng,
Khlong Luang, Pathum Thani 12120, Thailand

Registration deadline:

15 January 2016

Certificate:

The participants who attend the class over 80% of training hour will receive the certificate form the organizer

General information:

All of the participants must be responsible for their own accommodation and transportation.

Recommended Hotels

1. **Lampang Wieng Thong Hotel**
Address 138/109 Phahonyohtin RD., Suandok, Muang, Lampang 52100
Website <http://www.lampangwiengthong.co.th/>
Email lampangwiengthonghotel@hotmail.com
Tel 0 5422 5801
2. **Butnamtong Hotel**
Address 57/2 Phahonyohtin RD., Chompoo, Muang, Lampang 52100
Website <http://www.butnamtonglampang.com>
Email butnamtong99@yahoo.com
Tel 0 5435 2714
3. **Kim City Lampang**
Address 274/1 Chatchai RD., Sontui, Muang, Lampang 52100
Tel 0 5431 0238

4. **Kawhom Residence**
 Address 43 Sanambin RD., Huawiang, Muang, Lampang 52000
 Website <http://www.kawhom-residence.com/home.php>
 Email kawhom-residence@hotmail.com
 Tel 0 5422 1988, 086 304 2749
5. **B2 Lampang Boutique and Budget Hotel**
 Address Muang, Lampang 52000
 Website http://www.xn--o3cf5fra.com/hotel/B2_Lampang
 Email rsvn@b2hotel.com
 Tel 0 5422 4400
6. **Auangkham Resort Lampang**
 Address 49, 51 Wangnua rd., Wiangnua, Muang, Lampang 52000
 Website <http://www.auangkhamlampang.com/web/>
 Email auangkham@hotmail.com
 Tel 0 5422 1306

Transportation

Lampang is approximately 600 km from Bangkok. The city is an important highway hub, with a 4-lane divided highways link to Chiang Mai, Chiang Rai, as well as major highway to Phrae and eastern Lanna provinces. Lampang is roughly a 1:30 hour bus ride to Chiang Mai. Lampang is a major stop for the Chiang Mai-bound train, approximately 10 hours from Bangkok.

Lampang Airport is served by Bangkok Airways (3 flights daily to Suvarnabhumi Airport) and Nok air (3 flights daily to Don Muang Airport).

- Bangkok Airways flights information

Suvarnabhumi Airport - Lampang		Lampang - Suvarnabhumi Airport	
Flight	Time	Flight	Time
PG 203	06.20 - 07.50	PG 204	08.20 - 09.50
PG 207	12.00 - 13.30	PG 208	14.00 - 15.30
PG 205	16.30 - 18.00	PG 206	18.30 - 20.00

Website: <http://www.bangkokair.com/tha/pages/home>

- Nok Air flights information

Don Muang Airport - Lampang		Lampang - Don Muang Airport	
Flight	Time	Flight	Time
DD8504	06:00 - 07:30	DD8505	08.00 - 09.30
DD8510	11.55 - 13.25	DD8511	14.30 - 16.00
DD8522	17.30 - 19.00	DD8523	19.30 - 21.30

Website: <http://www.nokair.com/>

Workshop Program:

Date/Time	Title	Lecturers
Monday, 1 February 2016		
<i>Morning: Lecture session</i>		
08:00 – 08:30	Registration	
08:30 – 08:40	Opening ceremony	RMUTL
08:40 – 10:20	Course introduction and introduction to irrigation principles	Dr. Naftali Lazarovitch
10:20 – 11:40	Coffee break	
10:40 – 12:20	Introduction to fertilization and fertigation principles	Dr. Uri Yermiyahu
12:20 – 13:00	Lunch	
<i>Afternoon: Workshop session</i>		
13:00 – 14:45	Gravity fed family drip irrigation system <ul style="list-style-type: none"> Assembling drip irrigation system and performing measurements of discharge variability 	Dr. Naftali Lazarovitch
14:45 – 15:00	Coffee break	
15:00 – 16:45	Fertilizer systems and fertilizer suitable for fertigation <ul style="list-style-type: none"> Making nutrient solution and measured the mineral concentration in the solution 	Dr. Uri Yermiyahu
16:45 – 17:15	Summary (in Thai)	Speakers from ATRI, RMUTL
Tuesday, 2 February 2016		
<i>Morning: Lecture session</i>		
08:30 – 10:15	The soil as water reservoir and irrigation scheduling	Dr. Naftali Lazarovitch
10:15 – 10:30	Coffee break	
10:30 – 12:15	Fertigation technology	Dr. Uri Yermiyahu
12:15 – 13:00	Lunch	
<i>Afternoon: Workshop session</i>		
13:00 – 14:45	Gravity fed family drip irrigation system <ul style="list-style-type: none"> Pressure discharge curve for uncompensated drippers Pressure drop along the line Soil water content distribution 	Dr. Naftali Lazarovitch
14:45 – 15:00	Coffee break	
15:00 – 16:45	Fertilizer systems 1 <ul style="list-style-type: none"> Assembling fertigation systems and performing measurements of mineral concentration in irrigation water 	Dr. Uri Yermiyahu
16:45 – 17:15	Summary (in Thai)	Speakers from ATRI, RMUTL

Date/Time	Title	Lecturers
Wednesday, 3 February 2016		
<i>Morning: Lecture session</i>		
08:30 – 10:15	Introduction to drip irrigation 1	Dr. Naftali Lazarovitch
10:15 – 10:30	Coffee break	
10:30 – 12:15	Fertilizers calculations	Dr. Uri Yermiyahu
12:15 – 13:00	Lunch	
<i>Afternoon: Workshop session</i>		
13:00 – 14:45	Drip irrigation in soilless culture <ul style="list-style-type: none"> • Online compensated drippers in pots • Pressure discharge curve • Discharge rate along the line • Pressure drop along the line 	Dr. Naftali Lazarovitch
14:45 – 15:00	Coffee break	
15:00 – 16:45	Fertilizer systems 2 <ul style="list-style-type: none"> • Assembling fertigation systems and performing measurements of mineral concentration in irrigation water 	Dr. Uri Yermiyahu
16:45 – 17:15	Summary (in Thai)	Speakers from ATRI, RMUTL
Thursday, 4 February 2016		
<i>Morning: Lecture session</i>		
08:30 – 10:15	Introduction to drip irrigation 2	Dr. Naftali Lazarovitch
10:15 – 10:30	Coffee break	
10:30 – 12:15	Fertigation use efficiency	Dr. Uri Yermiyahu
12:15 – 13:00	Lunch	
<i>Afternoon: Workshop session</i>		
13:00 – 14:45	Drip irrigation in soilless <ul style="list-style-type: none"> • Pot capacity with different soilless cultures • Water balance 	Dr. Naftali Lazarovitch
14:45 – 15:00	Coffee break	
15:00 – 16:45	Liquid fertilizers <ul style="list-style-type: none"> • Making stock solution for fertigation systems 	Dr. Uri Yermiyahu
16:45 – 17:15	Summary (in Thai)	Speakers from ATRI, RMUTL
Friday, 5 February 2016		
08:00 – 14:00	Field trip to melon farm <ul style="list-style-type: none"> • Measurements: Root distribution, soil water content distribution and soil electrical conductivity distribution 	
15:00 – 16:00	Course summary	
16:00	Closing ceremony	
Note: <i>The participants will practice the given exercises both in the class and field regarding drip system & sensors assembly, operation and measurement</i>		

-Registration Form-

Please type or print CLEARLY all information requested

Name	(Mr./Ms./Mrs.)				
Title	(Assist., Assoc., Prof., Dr.)				
Position					
Dept./Unit					
Organization					
Address					
State/Prov.		Country		Postal Code	
Tax ID no.*				Branch*	
Tel.			Fax.		
Mobile			E-mail		

* Required for COMPANY and PRIVATE UNIVERSITY

Registration:

I would like to registration for;

1)	<input type="checkbox"/> Seminar on Technologies for Agriculture in Dryland: Case Study from Israel, 29 January 2016 Registration fee: Free of charge
2)	<input type="checkbox"/> Workshop on Drip Fertigation: Melon Model, 1 - 5 February 2016 Registration fee: (These fees are inclusive of 7% VAT, lunch and refreshment, workshop material and handout.) <input type="checkbox"/> General 6,500 Baht <input type="checkbox"/> Student 5,500 Baht

Dietary restriction (please choose one):

None Vegetarian Muslim Others.....

Method of Payment:

❖ Wire transfer: Pay to

Bank Name: Bangkok Bank, Thailand Science Park Branch

Savings Account Name: BIOTEC - National Center for Genetic Engineering and Biotechnology

Account No.: 080-0-002800 Swift Code: BKKBTHBK Bank Code: 0080

Bank Address: 111 Phahonyothin Rd., Khlong Nueng, Khlong Luang, Pathum Thani 12120, Thailand

(After transferring, please kindly fax copy of pay-in slip to 66 2564 6574 or send to TrainingUnit@biotec.or.th)

Payment Receipt:

Please indicate the details shown in the receipt	
<input type="checkbox"/>	Same as the above mentioned
<input type="checkbox"/>	Name:
Address:	
.....	
Tax ID:	Branch:
Please note that the issued date on the receipt will be subject to the date you make payment.	
After issuing, it cannot be changed. If having problem with that, please do not hesitate to contact course secretariat.	

Please send the registration form to:

Technical Training Unit, BIOTEC

113 Thailand Science Park, Phahonyothin Rd., Khlong Nueng, Khlong Luang, Pathum Thani 12120

Tel: (66) 2564 6700 ext 3379 - 82 Fax: (66) 2564 6574 E-mail: TrainingUnit@biotec.or.th

Please return this form by Fax or E-mail before 15 January 2016

