

Ultimate & Thought-Provoking Course on Environment-Friendly and Futuristic Plant Growing Technologies

Hydroponics



Organics Aquaponics Phytoponics

Principles, Practices, Problems & Potential

BASIC & ADVANCED COURSES specially designed for highly motivated & committed growers and health-conscious consumers

Specially designed for

- serious food consumers
- health & environment conscious people
- high-rise apartment dwellers
- commercial growers
- owners of home / factory buildings with flat rooftops
- educationists / science teachers
- students in life science programs / horticulture
- property owners/developers/managers
- decision / policy makers
- investors in agrotechnology projects
- hobbyists / over-worked & under-worked professionals

Course Leader

Dr. Mallick F. Rahman, M.

B.Sc.(Agriculture), M.Sc.(Horticulture), Ph.D.(Horticultural Biotechnology)

Director / Consultant Horticulturist

Hydroponics & Plant Care Pte Ltd
Block 461 # 13-75, Crawford Lane
Singapore – 190461

Adjunct Lecturer

School of Life Sciences, Ngee Ann Polytechnic
& School of Horticulture, National Parks Board
Singapore



Course Venue:

HortPark, 33 Hyderabad Rd
(off Alexandra Road)

Course Dates:

6 June 2009 (Saturday)
9 July 2009 (Thursday)

Course Time:

9 am – 5 pm

Course Fee:

SGD 220.00 / person

Course Contacts:

Tel: +65-6291-8153

E-mail: hpc@singaporehydroponics.com

Course Web:

download and print a hard copy of the full brochure and the **Registration Form** from www.singaporehydroponics.com

Course Registration:

You can also collect the Registration Form at the Reception Counter at HortPark, complete & mail the Registration Form + Cheque to:

Blk 461 #13-75 Crawford Lane,
Singapore – 190461

Receipt & Confirmation letter will be mailed to you within 7 days.

HPC Hydroponics Training Centre HPC


Tel: 65-6291-8153 Fax: 65-6298-7978 E-Mail: hpc@singaporehydroponics.com website: <http://www.singaporehydroponics.com>

OBJECTIVES & GOALS

Objectives & Goals of this Course (*Seminar & Workshop*) **are as follows:**

1. to provide detailed information on the concept of soilless culture and its application in
 - **Hydroponic Farming Technology** (*Hydroponics*)
 - **Organic Farming Technology** (*Organics*)
 - **Aquaponic Farming Technology** (*Aquaponics*)
 - **Planted Tanks Technology** (*Phytoponics*)
2. to provide detailed knowledge on hydroponics
3. to provide detailed knowledge on organics
4. to provide detailed knowledge on aquaponics
5. to provide detailed knowledge on greenhouse technology
6. to provide detailed knowledge on phytonics
7. to provide hands-on training in hydroponics using a **Beginner's Kit** (*participants can take this kit home & practice*)
8. to equip the participants with a broad spectrum of knowledge about the modern trend in hydroponics technology and the international hydroponics industry
9. field visit to **HPC**'s Hydroponics Training Station (*at HortPark*)
10. to equip the trainee with a broad spectrum of knowledge about the modern trend in the hydroponics technology and the international hydroponics industry
11. field visit to 1-2 successful commercial hydroponic farms in Singapore and in Malaysia (*optional*)

Course Program (for 1-Day **Beginner's Course**)

Date	Session	Time	Topics Covered	
<i>Your choice</i>	Registration	08:30 am - 09:00 am	Participants check-in, collect package & be seated	
	Session 1	09:00 am - 10:00 am	Conventional Agriculture and its relationship to Soilless Culture – focus on Hydroponics, Organics, Aquaponics, Greenhouse technologies and Urban / Micro-farming	
	Tea Break	10:00 am - 10:30 am	<i>Tea / Coffee & light snacks shall be provided</i>	
	Session 2	10:30 am - 11:30 am	Hydroponics Technology – history, concept, techniques, cultures, systems & practices	
		11:30 am - 12:00 nn	Hydroponics – World Tour (slide show)	
	Lunch Break	12:00 nn - 01:00 pm	<i>Buffet Lunch shall be provided</i>	
	Session 3	01:00 pm - 01:30 pm	Nutrition – composition, formulation, stock & feeding solutions, conductivity factor, pH factor, managing nutrient solution & the chemical controversy	
		01:30 pm - 02:00 pm	How to grow seedlings / sprout vegetables, leafy vegetables, fruit vegetables, flowers, fruits, herbs, etc... in a hydroponic system?	
		02:00 pm - 02:30 pm	Application of Soilless Culture in hobby kits, sprouter kits, homes, commercial farms, schools, physically disabled, visually handicapped, mentally retarded people & old folks/retired people, physio-therapeutic centers, etc...	
			02:30 pm - 03:00 pm	“Video” show on Hydroponics in Singapore
	Tea Break	03:00 pm - 03:30 pm	<i>Tea / Coffee & light snacks shall be provided</i>	
	Session 4	03:30 am - 04:00 pm	Demonstration & hands-on exercise using a Hydroponics Beginner's Kit (one kit will be given to each participant)	
		04:30 pm - 05:00 pm	Field Visit to a Hydroponics Farm	

Course Program (for *5-Half Day **Advanced Course***)

Date	Session	Module Details	
Day 1 <i>(your choice)</i>	Module 1 <i>(half day)</i>	<u>Session 1</u> (9 am -11 am)	<ul style="list-style-type: none"> • Registration & Orientation trainee/s • Discussion on the training program
		<u>Session 2</u> (11 am – 1 pm)	Hydroponic Farming, Organic Farming, Aquaponic Farming, Greenhouse Farming, Planted Tanks and Urban or Micro-Farming
Day 2 <i>(your choice)</i>	Module 2 <i>(half day)</i>	<u>Session 3</u> (9 am -11 am)	Introduction to conventional agricultural practices and its relationship to Soilless Culture
		<u>Session 4</u> (11 am – 1 pm)	Hydroponics – history, concept, techniques, cultures, systems & practices
Day 3 <i>(your choice)</i>	Module 3 <i>(half day)</i>	<u>Session 5</u> (2 pm -4 pm)	Nutrition – composition, formulation, stock & feeding solutions, conductivity factor, pH factor
		<u>Session 6</u> (4 pm – 6 pm)	Substrate Feeding, Foliar Feeding & Hydroponic Feeding - managing nutrient solution & the chemical controversy
Day 4 <i>(your choice)</i>	Module 4 <i>(half day)</i>	<u>Session 7</u> (9 am -11 am)	Hydroponic Techniques & Designing Hydroponic Systems
		<u>Session 8</u> (11 am – 1 pm)	Commercial Production of Crops by Soilless Culture – seedlings / sprout vegetables, leafy vegetables, fruit vegetables, flowers, fruits, herbs, etc...
Day 5 <i>(your choice)</i>	Module 5 <i>(half day)</i>	<u>Session 9</u> (9 am -11 am)	Field Trip to the Singapore Agrotechnology Parks
		<u>Session 10</u> (11 am – 1 pm)	Field Trip to a Commercial Hydroponic Farm
Reference Materials		<ol style="list-style-type: none"> 1. Application of Soilless Culture for the physically disabled, visually handicapped, mentally retarded & retired people, physio-therapy centers, etc... 2. Business in soilless culture 3. International Conference & Exhibition on Soilless Culture – 2005 – Delegates’ Handbook 4. Grow Lights 	

PROFILE OF THE TRAINER

Dr. Mallick F. Rahman, M. - A Profile

- **Identification** : Singapore Citizen – Identification Number NRIC: S 2578484 G
- **Education** : is a graduate in Agriculture (1974) from Tamil Nadu Agricultural University, **India**. Later, he obtained his Masters (1977) and Ph.D. (1982) degrees in horticulture. He did his post-doctorate at the Shizuoka University in **Japan** (1984). He has over **33 years** of **research, lecturing and entrepreneurial experience** in horticulture in Singapore, Malaysia, Brunei, India, Indonesia, Philippines and Japan. He has extensively **traveled to many parts of the world** - the US, UK, Holland, South Korea, Australia, New Zealand, Spain, France and other countries to speak and to attend conferences and exhibitions in Horticulture and Soilless Culture.
- **Profession** : is a **Consultant Horticulturist and Managing Director** of a company that is solely committed to practicing and promoting the hydroponic and organic farming technologies - **Hydroponics & Plant Care Pte Ltd** (HPC). He is also working as an **Adjunct Lecturer** at the School of Life Sciences, **Ngee Ann Polytechnic** and at the **School of Horticulture, National Parks Board**, Singapore. Earlier, in 1997 he worked as a Director Consultant of regional operations with the **Asia-Pacific Horticultural Projects Pte Ltd** and has handled numerous consultancy projects in Singapore and in the region.
- **Management** : is actively involved in Management Consultancy work and has written Project Evaluation Reports to multi-national companies like **Sojitz Corporation** and **Kajima Corporation** of Japan.
- **Research** : was the **Principal Investigator** of one National Science & Technology Board - NSTB (now **A*Star**) project on Tropical Hydroponics from 1989-91. He has **presented many technical papers** at International Conferences in Australia, Japan, Malaysia, Singapore, New Zealand, Spain, UK and USA. He has **published more than 50 research and popular articles**. He has traveled to many countries in the world to study the latest developments in hydroponics, organics & aquaponics in addition to general horticulture.
- **Societies** : was the **Official Representative** (Asia) of the **International Society for Soilless Culture** based in Holland until 1999. Dr. Mallick was the founder and currently the **President** of the **Singapore Society for Soilless Culture**. He is also sitting in the Management Council of the **International Society for Horticultural Science** based in Belgium.
- **Conferences** : In Singapore, he has successfully organized the **First Asia-Pacific Conference & Exhibition on Soilless Culture** in May 2001. Next, with the support from the United Nation's Food & Agricultural Organization (FAO), the International Society for Horticultural Science (ISHS), the International Society for Food, Agriculture and the Environment (ISFAE), Singapore Tourism Board (STB) and other front liners, he successfully organized the **International Conference & Exhibition on Soilless Culture** in September 2005. He **conducts numerous public seminars and workshops** on hydroponics, organics and aquaponics all round the year. Next conference is due in September 2009.

Dr. Rahman Mallick can be contacted at

Tel: 65-6291-8153, HP: 65-9678-5297, Fax: 65-6298-7978

Course Registration Form

(Please fill in, detach this form and send it over to the Organizer – these details will be used to print you Certificate)

Seminar & Workshop on Hydroponics, Organics, Aquaponics & Phytoponics

For All Participants:

Name : _____
Dr. / Prof. / Mr. / Mrs. / Ms / Mdm Name as in your Passport or Identification Card & underline SURNAME

National Registration / IC No: / Passport No : _____

Designation : _____

Affiliation : _____ (Company/Institution)

Mailing Address: _____

Postal Code: _____ Country: _____

Experience in Hydroponics: NIL / some experience as a hobbyist / small grower / commercial grower / entrepreneur / investor / students / others (mention) - Please circle one _____

Telephone : _____ (Office) _____ (Mobile)

Fax : _____

E-Mail : _____

For Overseas Participants only:

Flight Details : Arrival Date : _____ Arrival Time : _____ Arrival Flight : _____

Departure Date: _____ Departure Time: _____ Departure Flight: _____

Hotel Name: _____ Hotel Room: _____ Hotel Address: _____

Use ONE Registration Form for each Participant

Name of Course: **Basic** (1-full day) Course / **Advanced** (5-half day) Course Date of Course:
(Circle your choice)

Date of Registration: _____ Amount Paid: SGD: _____ Payment Mode: Cheque / TT / Others

Please write your cheque in favour of: "**Hydroponics & Plant Care Pte Ltd**"

Cheque Bank: _____ Cheque No: _____ Cheque Date: _____

Food Preference: Vegetarian Non-Vegetarian (Halal Food only)

Note: complete & mail this form + cheque to: **Blk 461 #13-75 Crawford Lane, Singapore – 190461**
You can also Fax a copy to +65-6298-7978 or e-mail a copy to hpc@singaporehydroponics.com
to block, reserve & confirm your participation in this course. You will receive a **CONFIRMATION LETTER**
HPC reserves the right to change the Course Venue & Date depending on the number of participants



Select a course date from the table given below to suit your convenience.

Basic Course on Hydroponics, Organics, Aquaponics & Phytoponics					
Tentative Schedules					
Month	Date	Day	Time	Venue	Target Audience
June	6 Jun'09	Sat	9am to 5pm	HortPark@NationalParksBoard 33 Hyderabad Road <i>(off Alexandra Road)</i> Singapore – 119578 +65 6471 5601 (General Enquiries) +65 6291 8153 (Course Details)	Professionals & Public
July	9 Jul'09	Thur			School Teachers & Public



Hydroponics Beginner's Kit (comes c/w seeds, nutrient solution, germination sponge, instruction manual, etc...) Retail Price S\$ 25.00 each



Commercial Hydroponic System (comes c/w seeds, nutrient solution, germination sponge, instruction manual, etc...) Retail Price S\$ 2,500.00 + Optional Greenhouse S\$ 3,500.00

Course Fee Details

Tick Box	Category	Crash Course		Basic Course		Advanced Course	
	Duration	3 hours		ONE Day		FIVE ½ Days	
	Suitable for	Primary & Secondary School Students		Educationists, Property Managers & Hobbyists		Commercial Growers, Entrepreneurs & Investors	
	Possible Funding Source	Edusave/Personal		Employers/Personal		Employers/Personal	
	Minimum Number of Participants	< 5	20-50	< 5	10-20	< 5	5-10
	Per Active Participant	\$ 145.00	\$ 95.00	\$ 260.00	\$ 170.00	S\$ 2,000.00	S\$ 1,650.00
	Spouse of Participant	\$ 105.00	\$ 65.00	\$ 210.00	\$ 125.00	S\$ 1,100.00	S\$ 950.00
	Per Bonafide Student (Minimum 20 students)	\$ 135.00	\$ 85.00	\$ 250.00	\$ 155.00	S\$ 1,800.00	S\$ 1,200.00
	Option 1: Field Trip to TWO Agrotechnology Parks in Singapore with TWO stops in TWO farms – cost per participant (<i>for groups of minimum 20 participants only</i>)	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00
	Option 2: Field Trip to Cameron Highlands (Malaysia) including bus travel, food, one night hotel accommodation and site visits – cost per participant (<i>for groups of minimum 20 participants only</i>)	\$ 280.00	\$ 280.00	\$ 280.00	\$ 280.00	\$ 280.00	\$ 280.00
	Total amount payable in S\$						
	For total amount payable in US\$ (please check the FOREX rate as of date) As a guide line, it hovers around S\$ 1.40 to US\$ 1.00						
<i>Strictly "No Refunds" upon cancellation – but substitutions are allowed</i>							

Alternatively, participants can go to www.singaporehydroponics.com to download and print a hard copy of this Official Registration Form. Mail it with your payment to the address below:

School of Hydroponics

Hydroponics & Plant Care Pte Ltd

Mailing Address: Block 461 #13-75, Crawford Lane, Singapore - 190461

Tel: 65-6291-8153, HP: 65-9678-5297, Fax: 65-6298-7978

E-Mail: hpc@singaporehydroponics.com

PAYMENT OPTIONS FORM

Option 1: Cash Payment in Person

Cash payments are accepted at our Bedok Retail Outlet on Sunday mornings 10 am – 2 pm. On weekdays, you can call us at +65-6291-8153 to make appointments for cash payments

Option 2: Online Payment

Online Payment can be made from any ATM machines – transfer your money to OCBC Bank Current Account: 515-086064-001 (**Hydroponics & Plant Care Pte Ltd**)

Option 3: Singapore Bank Cheques

Local residents and overseas clients can send in their payments directly or ask some of their friends with Singapore bank accounts to help - this is the cheapest way to send money

Option 4: Foreign Bank Cheques

Add S\$ 40.00 service charge - fee charged by Singapore banks to effect fund transfer.

Option 5: Bank Drafts

Bank-clearing charges of S\$ 20.00 to be borne by the sender - so add S\$ 20.00 to your bill when you order your DD at your bank

Make **Cheques / Demand Drafts** in favor of "**Hydroponics & Plant Care Pte Ltd**"

Attach your cheque / bank draft to your Order Form and mail it to:

Hydroponics & Plant Care Pte Ltd
Block 461 #13-75, Crawford Lane
Singapore – 190461

Option 6: Inter-bank GIRO

Hydroponics & Plant Care Pte Ltd, is "**GeBIZ**" registered with the Ministry of Education in Singapore. So, Singapore schools can pay through this system.

Option 7: Telegraphic Transfer (TT)

For overseas fund transfers - bank charges by remitting bank (*check with your bank*) & receiving bank (*our bank*) - S\$ 30.00 - to be borne by you - so please add S\$ 30.00 to your registration fee when you order your TT.

Option 8: Western Union Money Transfer

Money transfer through Western Union is very fast. You can pay at any **Post Office** or any bank in your country and we can receive the money here in Singapore in 30 minutes' time.

The post office or the bank in your country will give you a Code Number. Please send this Code number to us by e-mail or phone or by SMS. We will show this number to the post office here and they will release the fund. It is so simple.

Option 9: Local Fund Transfer

Local participants and/or their companies can send in their payment direct to our bank account through their bank or through any Bank ATMs. Our bank details are given below:

Bank Name	:	OCBC Bank
Bank Address	:	65 Chulia Street, OCBC Centre, Singapore - 049513
Bank Branch	:	Jalan Sultan Branch
Bank telephone	:	(65) 1800-383-3333
Bank Website	:	www.ocbc.com
Account Name	:	Hydroponics & Plant Care Pte Ltd
Account Number	:	515-086064-001
Swift Code	:	OCBCSGSG
CR Number	:	14168980000C (Export/Import Permit Number)

Should you need any further information, please do not hesitate to call us direct at +65-6291-8153