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

Hydroponics
Organics
Aquaponics
Phytoponics

Principles, Practices, Problems & Potential

BASIC & ADVANCED COURSE 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 Venue:
Phoenix Park, 318 Tanglin Road
Singapore (& other locations)

Course Dates: (5 days X half day / day)
From __________ (pick-a-date)
To __________ (pick-a-date)

Course Time: (4h/day for 5 days)
9 am – 1 pm or 2 pm – 6 pm

Course Fee:
SGD 2000.00 / 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 our Tanglin Office, complete & mail the Registration Form + Cheque/TT to:
Blk 461 #13-75 Crawford Lane,
Singapore – 190461
Receipt & Confirmation letter will be mailed to you within 7 days.

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

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 phytoponics

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. to equip the trainee with a broad spectrum of knowledge about the modern trend in the hydroponics technology and the international hydroponics industry

10. field visit to 1-2 successful commercial hydroponic farms in Singapore and in Malaysia (optional)
## Course Program (for 1-Day Basic Course)

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

(for 5 Half-Day Advanced Course)

<table>
<thead>
<tr>
<th>Date</th>
<th>Session</th>
<th>Module Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day 1</strong></td>
<td><strong>Module 1</strong></td>
<td><strong>Session 1</strong>  (2 pm -3 pm) • Registration &amp; Orientation trainee/s • Discussion on the training program  &lt;br&gt;<strong>Session 2</strong>  (3 pm – 6 pm) Introduction to conventional agricultural practices and its relationship to Soilless Culture</td>
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<tr>
<td>(your choice)</td>
<td>(half day)</td>
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<tr>
<td><strong>Day 2</strong></td>
<td><strong>Module 2</strong></td>
<td><strong>Session 3</strong>  (9 am -11 am) Hydroponics – history, concept, techniques, cultures, systems &amp; practices  &lt;br&gt;<strong>Session 4</strong>  (11 am – 1 pm) Hydroponic Farming, Organic Farming, Aquaponic Farming, Greenhouse Farming, Planted Tanks and Urban or Micro-Farming Hydroponics – World Tour (slide show)</td>
</tr>
<tr>
<td>(your choice)</td>
<td>(half day)</td>
<td></td>
</tr>
<tr>
<td><strong>Day 3</strong></td>
<td><strong>Module 3</strong></td>
<td><strong>Session 5</strong>  (2 pm -4 pm) Nutrition – composition, formulation, stock &amp; feeding solutions, conductivity factor, pH factor, managing nutrient solution &amp; the chemical controversy  &lt;br&gt;<strong>Session 6</strong>  (4 pm – 6 pm) Demonstration &amp; hands-on exercise using a Hydroponics Beginner's Kit (one kit will be given to each participant)</td>
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<tr>
<td>(your choice)</td>
<td>(half day)</td>
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<tr>
<td><strong>Day 4</strong></td>
<td><strong>Module 4</strong></td>
<td><strong>Session 7</strong>  (2 pm -4 pm) Hydroponic Techniques, Design &amp; Construction of Hydroponic Systems  &lt;br&gt;<strong>Session 8</strong>  (4 pm – 6 pm) Commercial Production of Crops by Soilless Culture – seedlings / sprout vegetables, baby leaves, leafy vegetables, fruit vegetables, flowers, fruits, herbs, etc… and application of Soilless Culture in hobby kits, Sprouter kits, home kitchen gardens, commercial market farms, salad centers, schools, physically disabled, visually handicapped, mentally retarded people &amp; old folks/retired people, physio-therapeutic centers, etc</td>
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<tr>
<td>(your choice)</td>
<td>(half day)</td>
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<tr>
<td><strong>Day 5</strong></td>
<td><strong>Module 5</strong></td>
<td><strong>Session 9</strong>  (9 am -11 am) “Video” show on Hydroponics in Singapore and motivation video clips down-loaded from the internet followed by a Field Trip - to the Singapore Agrotechnology Parks  &lt;br&gt;<strong>Session 10</strong>  (11 am – 1 pm) Field Trip - to a Commercial Hydroponic Farm</td>
</tr>
<tr>
<td>(your choice)</td>
<td>(half day)</td>
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</tbody>
</table>

HPC reserves the right to change the Course Venue & Date depending on the situation
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: ________

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

Please send your cheque or Telegraphic Transfer in favour of: “Hydroponics & Plant Care Pte Ltd”

Cheque/TT Bank: ____________________________ Cheque/TT No: ____________________________ Cheque/TT 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
For Basic Course: Choose a date of your choice

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Time</th>
<th>Venue</th>
<th>Target Audience</th>
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</thead>
<tbody>
<tr>
<td>January</td>
<td>8 Jan’11</td>
<td>Sat</td>
<td></td>
<td></td>
<td>1. commercial growers</td>
</tr>
<tr>
<td>February</td>
<td>19 Feb’11</td>
<td>Sat</td>
<td></td>
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<td>2. decision / policy makers</td>
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<tr>
<td>March</td>
<td>12 Mar ‘11</td>
<td>Sat</td>
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<td>3. educationists / science teachers</td>
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<tr>
<td>April</td>
<td>9 Apr’11</td>
<td>Sat</td>
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<td>4. environmentalists/naturalists</td>
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<tr>
<td>May</td>
<td>14 May’11</td>
<td>Sat</td>
<td></td>
<td>Seminar at 318 Tanglin Road Block B #01-41 Phoenix Park Singapore – 247979</td>
<td>5. factory buildings with flat rooftops</td>
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<tr>
<td>June</td>
<td>11 Jun’11</td>
<td>Sat</td>
<td>9 am to 5 pm</td>
<td>or other suitable venues</td>
<td>6. general public / nature volunteers</td>
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<tr>
<td>July</td>
<td>9 Jul ’11</td>
<td>Sat</td>
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<td>7. health conscious people</td>
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<td>August</td>
<td>13 Aug’11</td>
<td>Sat</td>
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<td>8. high-rise dwellers</td>
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<tr>
<td>September</td>
<td>10 Sep’11</td>
<td>Sat</td>
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<td>9. hobbyists</td>
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<tr>
<td>October</td>
<td>8 Oct’11</td>
<td>Sat</td>
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<td>10. home owners with flat rooftops</td>
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<tr>
<td>November</td>
<td>12 Nov ’11</td>
<td>Sat</td>
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<td>11. investors in agrotechnology projects</td>
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<tr>
<td>December</td>
<td>10 Dec ‘11</td>
<td>Sat</td>
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<td>12. market garden growers</td>
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<td>13. over-worked professionals</td>
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<td>14. parents</td>
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<td>15. professionals</td>
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<td>16. property developers</td>
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<td>17. property managers</td>
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<td>18. property owners</td>
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<td>19. retired &amp; enterprising individuals</td>
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<td>20. researchers &amp; scientists</td>
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<td>21. school kids</td>
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<td>22. serious food consumers</td>
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<td>23. students in horticulture</td>
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<td>24. students in life science programs</td>
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<td>25. under-worked professionals</td>
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</tbody>
</table>

For Advanced Course: Choice of date is optional

NFT Hydroponic System (c/w seeds, nutrient solution, germination sponge, instruction manual, etc….)
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 Fee Details

<table>
<thead>
<tr>
<th>Tick Box</th>
<th>Category</th>
<th>Crash Course</th>
<th>Basic Course</th>
<th>Advanced Course</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Duration</td>
<td>3 hours</td>
<td>ONE Day</td>
<td>FIVE ½ Days</td>
</tr>
<tr>
<td></td>
<td>Suitable for</td>
<td>Primary &amp; Secondary School Students</td>
<td>Educationists, Property Managers &amp; Hobbyists</td>
<td>Commercial Growers, Entrepreneurs &amp; Investors</td>
</tr>
<tr>
<td></td>
<td>Possible Funding Source</td>
<td>Edusave/Personal</td>
<td>Employers/Personal</td>
<td>Employers/Personal</td>
</tr>
<tr>
<td></td>
<td>Minimum Number of Participants</td>
<td>&lt; 5</td>
<td>20-50</td>
<td>&lt; 5</td>
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<tr>
<td></td>
<td>Per Active Participant</td>
<td>$145.00</td>
<td>$95.00</td>
<td>$260.00</td>
</tr>
<tr>
<td></td>
<td>Spouse of Participant</td>
<td>$105.00</td>
<td>$65.00</td>
<td>$210.00</td>
</tr>
<tr>
<td></td>
<td>Per Bonafide Student (Minimum 20 students)</td>
<td>$135.00</td>
<td>$85.00</td>
<td>$250.00</td>
</tr>
</tbody>
</table>

**Option 1**: Field Trip to TWO Agrotechnology Parks in Singapore with TWO stops in TWO farms – cost per participant (for groups of minimum 20 participants only)

|          | $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 (for groups of minimum 20 participants only)

|          | $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

|          | Strictly “No Refunds” upon cancellation – but substitutions are allowed |

Alternatively, participants can go to [www.singaporehydroponics.com](http://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](mailto: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