

HGTIPL

Questions and Answers

For prospective clients

CV

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This Q&A Page is made for those prospective people who are looking to start a Commercial Hydroponics Operation.

Hydroponics Projects- Q & A

We at the Pet Bharo Project have over the past six years received and replied 1000's of emails from prospective clients asking us questions of all kinds. Now that we have enough statistics we have been able to take the most asked and important anxieties and put them down here for the benefit of our enquirers. This saves them time as well as for us. In case you have any questions outside of these you are most welcome to ask them separately. We have endeavoured to choose the best ones here, however this is a work in progress and we will keep updating new kinds of queries hitherto unasked.

1. What is your background in Hydroponics?

We have a combined experience of more than 100 years in Hydroponics. Our members are all hands on growers, teachers and auditors in Hydroponics both Simplified and Commercial.

2. Which are your major projects?

- Bangalore Strawberry Project
- Coimbatore Lettuce Project
- Zambia Cucumber, Strawberry, Capsicum Project
- Ahmedabad Ginger Project et al

3. What way do you help us in Hydroponics?

- Initial site visit and drawing up of plans.
- Turnkey set up of Hydroponic Greenhouse Systems
- Training of Staff
- Agronomy Support
- Auditing
- Setting up a Farm Management Review Plan
- Setting up IPM (Integrated Pest Management)
- Training in Greenhouse Hygiene Management
- On Site Food safety training

This is just a small list amongst many others.

4. What are your Consultancy fees?

That is decided based upon many factors like size of project, number of crops, time involved in setting up and options selected by clients.

5. Is Hydroponic cultivation easy?

Yes and No. Yes it is for those who have passion for horticulture or even plants, are disciplined, devoted, dedicated and are willing to spend long hours if needed at the farm and are willing to sacrifice many other life's goodies like partying, holidaying, and other such pursuits. It needs a lot of focus and is intensive horticulture. This is a good business for people who are process or procedure oriented.

6. How soon can I get my returns? Can I double my money in 6-12 months?

Yes you can if you produce Saffron in Hydroponics maybe. Although it must be looked at as a commercial business, Hydroponics takes time to learn and becoming a leader in the market needs a lot of hard work, zeal and enthusiasm. If one wants just to make money alone then he must look at other get-rich-quick schemes.

7. I have money and several hundred acres of land and I wish to start on 50 acres right away? We wish to grow 10 types of crops and take a large share of the fresh produce market. How can you help?

Whosoever the client may be we ask them to start with just one type of crop and in an area of 1acre to 1 Ha.

8. Will you sit on our farm and run our operations? We will pay you for it. Can we will come over to collect our profits at the end of the year.

No. Not at all. We train your staff; audit your processes on site and off site till the first crop and give the necessary advice.

9. Do you guarantee our crop yields?

No, although we do all we can to guide your team it's up to them to follow our guidelines and follow the SOP (Standard Operating Procedures) we cannot be responsible for complacency, carelessness and mistakes made by your staff . We also cannot be responsible for the client using any sub-standard or cheap inputs just to save on costs.

10. Is it expensive to set up Hydroponics?

Yes initially it is as it's not like a soil greenhouse system. Here there are many other material inputs to be installed inside the greenhouse and may need more automation for environmental and irrigation control. The costs depend on the level of automation that clients need and also on environment in their area as well as choice of the crop.

11. Why is it that Hydroponics has never taken off in India? How come there are hardly any practitioners?

See, any science normally goes out from universities and research institutions. In India, for reasons best known to these Institutions, this technology has not been researched nor encouraged at all.

There is neither a single dedicated research laboratory nor a department for soilless cultivation in this country. Therefore the science has not found any commercial or even domestic applications.

12. Do you see any potential for Hydroponics in India?

Yes, of course we do. Considering the plight of horticultural growers in India today and that the way they continue to cultivate in the traditional way there is very little chance for any greater increase in yields or quality of horticultural produce. Soilless Cultivation is a way of growing pesticide free, nutritious vegetables and herbs and flowers and the quality, consistency and reliability can help growers earn a better remuneration for their produce. There is also a huge export potential.

13. Does a person necessarily have to have any prior agricultural background to enter this field?

Good question. 95 percent of the growers using hydroponics technology around the world are people who haven't ever been in agriculture like the Founder of Pet Bharo who has a military background and is a grower, trainer, auditor, agronomist and turnkey project consultant for commercial projects.

14. Is Hydroponics considered Organic?

No, the debate goes on all around the world all the time. In hydroponics we use refined salts that cover the macro-micro needs of the plant and we use 100 pc water soluble salts that the plant needs.

15. We have heard that plants grow 5-20 times faster in Hydroponics? Is that true?

No. It is not true. That is a misnomer. Plants grow as per their genetic programming. When they have ideal nutrition as per their stages of growth and the right environment they grow exactly as per this programming. In soil since they do not get the ideal conditions they grow slower than they should be growing. So if you compare a plant growing in soil and in soilless media you will feel that the one in the soilless media is growing faster and it's only a notional thing.

16. Is it true that yields are many times higher in hydroponic cultivation? That the yields are more than 15-20 times more than in soil cultivation?

No, it's not that way. It depends from crop to crop. Like Tomato may give 15-20 times more yields whereas some others may be just twice the yields.

17. Is the nutritive value of the crop better than in soil?

Yes. Definitely it is since all plants within the greenhouse are given the same nutrition and subjected to the same environmental conditions. Soil farmers hardly use any micro nutrients that are very important for better plant quality and nutritive value.

18. Is Hydroponics only for rich people?

Not really, it can be brought to small and marginal farmers too. We have even gravity fed drip irrigation systems that need no fossil energy at all and give good yields. Even simple structures can be built using local wood or even bamboo.

19. Is the crop predictable and how much?

The crops are predictable to a large degree and since we use protected and controlled environment to grow crops we have full control on the inputs and the grower is not at the mercy of the elements.

20. Do we use chemical pesticides?

We use what is known as IPM or Integrated Pest Management. Here we actually use bio-pesticides as a prophylactic to prevent pests and diseases as a preventative before the attacks happen. If due to any reason like carelessness or not following the right spraying regimen there is an outbreak we may need to use chemical pesticides to save the crop. If best practices laid down in the Farm Management Review Plan are followed correctly there will be no need to use chemical pesticides. If the outbreak is only local then we do a hotspot treatment and if its spread more than 5 pc then we do a broadcast treatment. While choosing to grow a crop we advise the client on the possible pests and diseases that can be expected.

21. How important is hygiene in and around a greenhouse?

Greenhouse Hygiene Management is a very important subject and is very important to follow each and every rule laid down in the book. Greenhouse sanitation when well followed is more than half the battle won. Many a grower around the world has had disasters not following the guidelines. We teach our clients this when we do their projects.

22. What is it that will make us choose you as a Consultant for our Hydroponics project?

Good question. Because we believe in absolute transparency with our clients. We tell our clients what they can expect of us right from the beginning. We take our client through the pros and cons of doing hydroponics, we speak more about the ground realities that our client will face so that he is not mesmerised into thinking that Hydroponics is a formula and a plug and play system. We explain that Hydroponics is a lot of mental work along with the attention to detail it demands. If we don't know something we say we just don't know. We never serve bullshit. In fact we are quite a pain for our clients by the way we hound them from the beginning of the project till it reaches its logical conclusion. They sometimes wonder why they chose us. Our services and the way we wish our client to do things are based on international standards and industry best practice.

23. Your Consultancy charges are on the higher side. Soil consultants don't charge that much. Even soilless consultants in India charge less.

Yes, our charges are definitely higher. We don't sell our services on price but on the quality of delivery of the said deliverables. Taking a novice set of people or greenhorns into our fold, training them, mentoring them, tracking their every activity takes a lot of time and effort for us. This Hydroponics is highly process oriented and scientific in approach. We have seen in India acres of so called "Hydroponic Greenhouses" bite the dust for want of the right resource people. We believe that just setting up a greenhouse with hydroponics is not enough. We endeavour to make our clients successful.

24. How much labour is required?

One Grower/Farm Manager/Agronomist along with just 2 farm assistants are more than sufficient on a routine basis except when important occasions like seeding, end of crop sanitising, laying of coco peat in troughs, during harvest times and packing activities.

25. How much of water is required for the operations say in one acre?

This depends on kind of crop, climate prevailing at site and stage of the crop. As a thumb rule on an average min requirement can be as low as 6000 litres per day to even as high as 16000 litres per day. It is prudent to have a reservoir capacity of at least 50-60000 litres just in case of borewell pump failure etc.

26. Do I need an RO (reverse osmosis) plant?

Yes and No. Yes if you have very hard water which cannot be used for hydroponics.

27. Is it compulsory that I do a water test analysis?

Yes it is for checking the minerals present in raw water as well as for microbiological contamination.

28. Can we grow Apples, Pomegranates, Bananas, Coconut, Teak, Rice, Wheat etc. in Hydroponics?

Yes and No. Growing these needs phenomenal amount of expenses and is not a viable methodology.

29. Then what can be grown in Hydroponics?

Almost all vegetables, flowers, herbs (culinary and medicinal) can be grown in this method.

30. We notice that you are not into Hydroponic Fodder Grass technology. Why is that?

Yes. We were into this technology and our CEO has many years of experience in this field having designed and commissioned these machines in India. But of late the Indian market has more than 50 players claiming immense expertise in the field and sorry to say they have actually spoilt the market. These players only copy the system but haven't the knowledge of how to exploit the system. Controlling Mold and Fungus is very important in these machines as poisonous fungi and mold can even kill cattle enmasse and is dangerous for large dairy operations. Therefore we have abandoned this division completely and allowed the rest of the market to play.

31. Do you give Commercial Hydroponics Training?

Yes, we do but only for clients who consult us for complete Turnkey Hydroponics projects. Our Consultancy includes training of personnel in handling the greenhouse operations and covers many subjects.

32. Do you help us in marketing our produce?

Officially we do not render this service; however, we do put our customer on to buyers when we know they are looking for premium produce.

33. Can we grow two crops in a single greenhouse?

We must only grow one type of crop in one greenhouse. The reason is that two different crops may need two different environments and it's not possible to have two environments in one greenhouse.

34. How do I make sure my foggers and drippers are not choked?

You must use such equipment that will break down the carbonates into finer particles that will prevent this problem.

35. Do you suggest what crops we must grow?

No. We do not suggest to our clients what they must grow because we don't understand the clients market and what kind of crops have high value in their intended markets.

36. We are novices in this field and are not sure of the kinds of inputs like seeds, nutrients, substrates etc. that we must procure from the market. Will you help us with this?

Yes. We do. For seeds we suggest the best vendors and you can buy direct from them. However, since our expertise is heavy in nutrients and substrates we supply you these vital inputs.

37. What are the human and material factors that can lead to crop failure or inability to produce a bumper yield of crop?

In Hydroponics we stress on the material factors like quality of substrate, water, seeds/planting materials and nutrients. The human factors which can cause problems are over confidence, complacency, carelessness, procrastination, lack of attention to detail, diligence, patience and devotion. This is a technology that is not for people who are not process and procedure oriented. It needs Team players.

38. Do you charge for site visits and if so what are your terms and conditions?

Kindly consult us separately by email to discuss.