



Ministry of Micro, Small and Medium Enterprises,  
Government of India



**MSME TECHNOLOGY CENTRE, BENGALURU**  
**MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES, GOVT. OF INDIA**

KIADB Industrial Estate, Devanahalli, Bengaluru

<https://www.msmetcblr.org/>

**BRIEF DESCRIPTION OF TRAINING PROGRAMME**

EDP on Comprehensive Agri-Business Training

**Organic & Hydroponics Farming**

**Live Interactive Session**

This is a workshop on Hydroponics for those who are interested in learning the basics of Hydroponics and start their own Hydroponic garden.

With this Hydroponics training program, you will be able to start your own hydroponic garden. Grow fresh vegetables without any pesticides right at the comfort of your home.

Skilled development of Agriculture Youth in some identified areas of organic farming to create job opportunities in organic sector particularly in the area of organic production, on-farm resource management, input production and quality control and marketing of organic produce with objectives as follows:

- a) Increasing the employment opportunity for rural & urban youth in organic market as organic grower, stakeholders, and entrepreneurs.
- b) To create first generation organic agriculture extension workers, field workers and organic growers.
- c) To impart skills at village level required for organic farming practices and related marketing economics.

d) To develop trainers on organic management practices with special focus on soil health base crop management, nutrient management and plant protection including formulation techniques for traditional Bio fertiliser, Bio pesticides and Soil health promoters.

e) To create work force which will guide / help techniques for doubling farmer's income like reducing input cost/inputs management, multilayer cropping, crop waste management, nutrient management, water management etc.

**Topics to be covered:**

	<b>Hydroponics</b>
1.	Plant Morphology, Types of crops, Life cycle of plants,
2.	What is hydroponics?
3.	Hydroponic Vs Soil, Medicinal Plants & Herbal Farming
4.	Methods and types of Hydroponics
5.	Aeroponics and Aquaponics
6.	How to start Hydroponics
7.	Type of Hydroponic System
8.	Hydroponic Nutrients & Formula
9.	Commercial Hydroponics – Details (Layout, Production Process, fertigation's)
10.	Benefits of Hydroponics over traditional cultivation & Potential Drawbacks
11.	Prepare your own Nutrient solution A B
12.	Water Quality in Hydroponics
13.	EC/PH/TDS of water
14.	Oxygenation, Temperature, Substrate
15.	Marketing of Hydroponics (Vegetables and fruits)
16.	Financing and Subsidies available
17.	Case Study of Hydroponics
18.	Day to day care of farm
19.	Checklist of day to day operation
20.	Do & Don't for Hydroponics
21.	Commercial fruit crop cultivation
22.	Integrated model for sustainable farming

<b>Organic Farming</b>	
1.	Introduction, Concept/philosophies, Principles and Need of organic farming
2.	Requisites of Organic farming with regulations Certifications
3.	Crop management, Nutrient Management and Pest Management and Multi-layer cropping system base farm planning.
4.	Zero budget natural farming with case study
5.	Organic Pesticides, fungicides and insecticides
6.	Branding of rural products, FSSAI, marketing and packaging of organic produce
7.	Rooftop/Balcony Vegetable/Flower Farming  Questions and answers session

#### **Advantages of hydroponics:**

1. Hydroponics is the cultivation of plants in water, according to the definition. It is a branch of hydroculture and an useful method of growing plants without the usage of soil.
2. Roots absorb nutrients from the water and meet their growth requirements using this method.
3. Additionally, by using this method, plants can be grown in liquid, sand, or gravel by simply adding nutrients.
4. Following are some of the advantages of using hydroponics:
  1. Higher yield.
  2. Controlled level of nutrition.
  3. Plants are healthier, and they mature faster.
  4. Weeds can be easily eliminated.
  5. Susceptibility to pests and diseases is negligible.
  6. Automation is possible.
  7. Water present in the system can be reused, which facilitates water conservation.
  8. Ease of harvesting.
  9. Crops produced are fitter for consumption.
  10. Small production space can be optimised effectively.

11. Needs No Soil
12. Conserves Water
13. Facilitates a Micro-Climate
14. Predictability and Seasonality
15. Crops Grow Faster
16. Maximizes Space
17. Produces Higher Yields
18. Require Less Labor
19. Shortens the Supply Chain
20. Produces Higher Quality Food

## **Hydroponics Produces Healthier Plants and Bigger Yields**

**1) Date- 02 & 03 March 2024 (2 Days)**  
**Time- 5 pm to 8.30 pm**

**Course Fee: Rs. 3000/- (Study material in softcopy shall be provided)**

### **FOR MORE DETAILS PLEASE CONTACT:**

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