THE GRADUATE SCHOOL
INDIAN AGRICULTURAL RESEARCH INSTITUTE
(A Deemed to be University under section 3 of UGC Act, 1956)
NEW DELHI-110012

File No. ICAR-IARI/TGS/Skill Development Course/2025 **Date:** 14/07/2025

Applications are invited for admission to following Skill Development Course at ICAR-IARI, New Delhi:

Featured Courses:

1. Rapid Composting and Quality Assessment.

Detailed Terms and Requirements for the courses:

• Rapid Composting and Quality Assessment

- **Duration:** 3 Months (Three Months).
- **Number of Students Intake:** 20 (UR-9, OBC-5, SC-3, ST-1, EWS-2, PwBD-1*)
- **Fee for the course:** 15000 /- (Fifteen Thousand only).
- **Age Limit:** 50 Years (Maximum)
- **Eligibility/ Education Requirement:** Minimum Eligibility 10th and above.
- **Place of Program/Venue:** Division of Microbiology, ICAR-IARI, New Delhi.
- **Mode of Training (Offline/Residential):** Non-Residential
- **Language:** Hindi/English

• **Other General Conditions:**

- **Mode of Selection:**

(i). Minimum 60% marks or 6.0 out of 10.0 OGPA throughout the academic career (10th/12th and UG) with relaxation of 10% marks for the candidates for SC/ST/PwBD category.

(ii). Reservation of seats for OBC-NCL, SC, ST and Persons with Benchmark Disability (PwBD) category as per Government of India rules.

(iii). The candidate needs to fill the Performa and send the filled in Performa along with all degree documents (10/12/UG/PG/any other diploma/certificate course) to Head, Microbiology Division (head_micro@iari.res.in) skilldevelopmentcourseiari@gmail.com.

• **Date of Start of Application:** 1st August, 2025

• **Last Date of filling Application:** 31st August, 2025

• **Mode of Application:**

(i). Scanned copy of filled application form along with the educational marksheets/degree may be sent to to Head, Microbiology Division (head_micro@iari.res.in) and skilldevelopmentcourseiari@gmail.com.

Disclaimer:

- No T.A./D.A. will be provided for taking part in the admission process.
- Filling the application form does not guarantee admission to the course. IARI reserves right to admit students.
- All rights regarding the admission process are reserved by The Director, IARI.

Note: Any further queries can be mailed upon to Head, Microbiology Division (head_micro@iari.res.in) skilldevelopmentcourseiari@gmail.com

(P K Jain)
JD (Admin.) & Sr. Registrar

The Graduate School
ICAR-Indian Agricultural Research Institute
New Delhi-110012

APPLICATION FOR ADMISSION TO THREE MONTHS SKILL DEVELOPMENT COURSE

Affix your passport size photo here

1. Name of the Skill Development Course applying for _____

   _____

   _____

2. Full Name (in Block Letter) _____

3. Name of Father/Guardian/Husband_____

4. (a) Address for correspondence (in Block Letters) _____

   _____

   Pin Code _____ Phone No.: _____Email ID:_____

   (b) Permanent Address (in Block Letters) _____

   _____

   _____

5. (a) Date of Birth _____

   (b) Age _____

   (c) Nationality _____

   (d) Sex _____

6. Category _____

7. Academic Qualifications

Qualification	Discipline	Passing Year	Name of School/College	University	Percentage/ CGPA
10th					
10+2/ Diploma					
Degree					
Others					

8. I declare that the particulars given above are correct and that I will, if admitted, abide by the rules & regulations of IARI.

Place: _____

Date: _____

Signature of the Applicant

Skill Enhancement

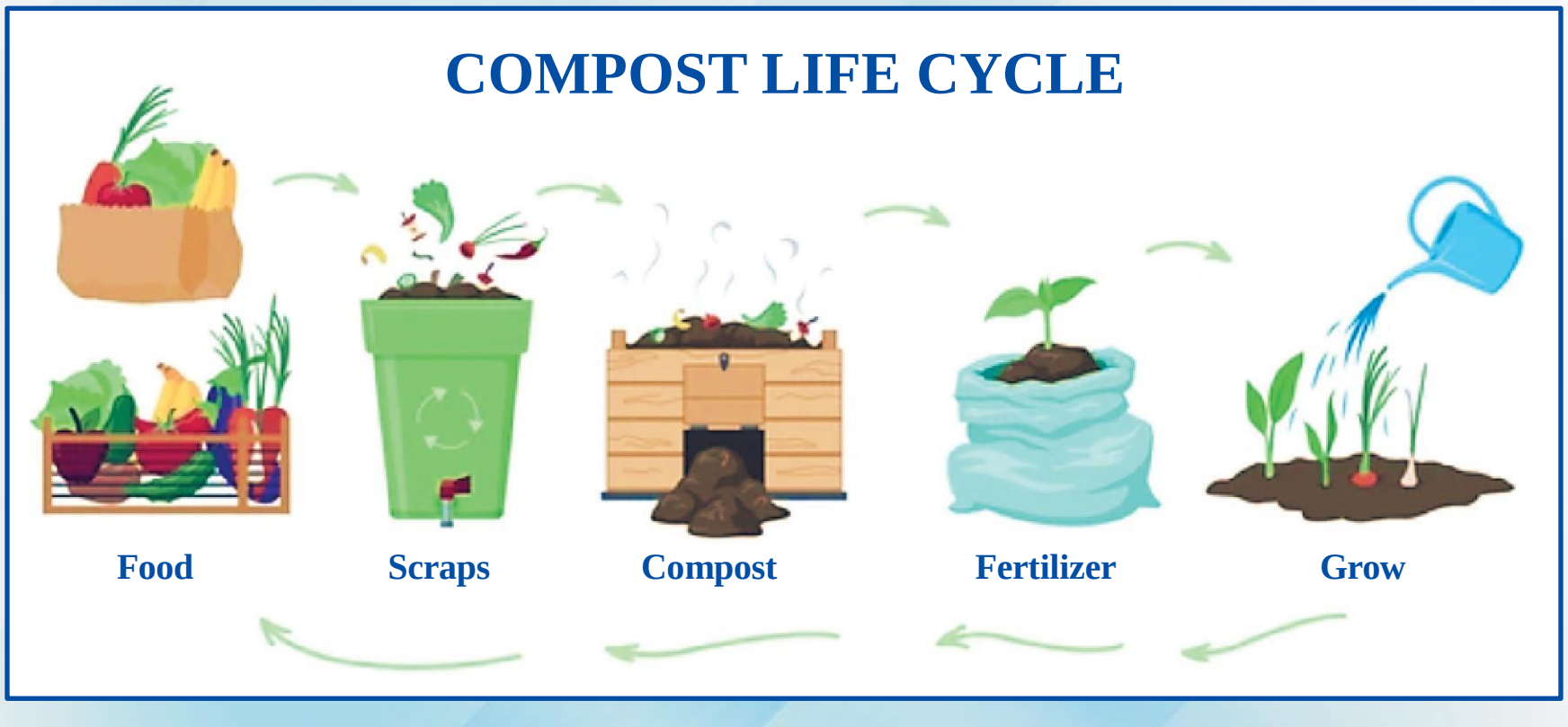
Certificate Course on Rapid Composting and Quality Assessment

2025 – 2026

3 Months

Offline Mode

Start Date of Course: September, 2025 (Tentative)



DIVISION OF MICROBIOLOGY
ICAR-IARI, NEW DELHI-110012

Course Duration : **3 Months**

Mode : **Theory + Practical + Field Training (Offline Mode)**

Eligibility : **Open to students, farmers, environmentalists, entrepreneurs, and professionals interested in waste management and sustainable agriculture**

Assessment : **Written Exam + Practical Demonstration + Project Work**

Certification : **Upon successful completion**

Background of the Course

Composting is an essential practice in sustainable waste management, converting organic waste into nutrient-rich compost that enhances soil fertility and supports environmental sustainability. With increasing concerns over waste disposal and soil degradation, skill development in composting has become crucial for individuals, farmers, entrepreneurs, and environmental enthusiasts.

This Certificate Course in Skill Development in Com-posting is designed to provide practical and theoretical deep knowledge on waste management strategies composting techniques, evaluating maturity as well as quality of compost, and its role in organic farming practices.

Participants will gain hands-on experience in compost pre-paration, understanding or rapid composting, and utilizing compost for agricultural and horticultural purposes.

The course aims to:

- **Provide a comprehensive understanding of composting methods, including aerobic, anaerobic, and vermicomposting.**
- **Develop technical skills in handling organic waste, optimizing composting conditions,**
- **Skill in rapid composting and quality assessment of compost.**
- **Promote eco-friendly waste disposal techniques to reduce environmental pollution.**
- **Equip participants with entrepreneurial skills for setting up small-scale composting businesses.**
- **Encourage sustainable agricultural practices by integrating compost into soil management strategies.**

Upon completion, participants will be able to implement effective composting systems, contribute to waste reduction, promote environmental conservation and participants can also setup Quality checking laboratory for compost. The course is ideal for students, farmers, researchers, and professionals interested in organic waste management and sustainable agriculture.

About ICAR

The Indian Council of Agricultural Research (ICAR) is an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India. Formerly known as Imperial Council of Agricultural Research, it was established on 16 July 1929 as a registered society under the Societies Registration Act, 1860 in pursuance of the report of the Royal Commission on Agriculture. The ICAR has its headquarters at New Delhi.

The Council is the apex body for co-ordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences in the entire country. With 113 ICAR institutes and 74 agricultural universities spread across the country this is one of the largest national agricultural systems in the world.

About ICAR-IARI

The Indian Agricultural Research Institute (IARI), known as the Pusa Institute, was founded in 1905 at Pusa, Bihar, through a donation from American philanthropist Henry Phipps. Initially called the Agricultural Research Institute (ARI), it was later renamed the Imperial Agricultural Research Institute before moving to New Delhi in 1936. Post-independence, it became IARI. Today, IARI's vision focuses on leading science-driven sustainable agriculture to ensure food, nutrition, and livelihood security. The institute is dedicated to pioneering research in crop productivity and quality, resource-efficient farming technologies, and agricultural education. It continues to be a cornerstone of agricultural research, fostering innovation in post-harvest technology, biotechnology, and integrated crop management while addressing the challenges of unfavorable agricultural conditions.

About Microbiology

The Division of Microbiology was established in 1961 by merging the units of Soil Microbiology of the Division of Soil Science & Agricultural Chemistry and Algology of then Botany Division. The focus of the Division is on basic, applied and strategic research on microorganisms of agricultural importance. Since its inception, the Division has contributed extensively on the isolation and selection of nitrogen fixing- and plant-growth promoting microorganisms for legumes, cereals, millets and oilseed crops. The standard protocols for mass production of bacterial (Rhizobium, Azotobacter, Azospirillum and phosphate solubilisers), cyanobacterial (blue-green algal bio-fertilizer for rice) and arbuscular mycorrhizal inoculants for various crops have been developed. Effective microorganisms for composting and their quality control parameters for their mass production are available. Mass production of Rhizobium inoculants for pulse crops was initiated in the late 1960s. The Division continues to be the prime centre for production and distribution of microbial inoculants of high quality, and for formulation of standards by the Bureau of Indian Standards (BIS) for testing microbial cultures for efficiency and purity of manufactured inoculants.

The Division of Microbiology is the national lead centre for advancing knowledge and understanding of the microbial domains for agricultural application. The blue sky research of the Division includes utilization of microbial gene- and metabolite pool for plant growth promotion as well as protection, natural resource management and value addition of biomass through microbial means. More importantly, the Division contributes to the human resource development. The faculty of the Division offers teaching and research guidance for both national and international students for their masters and doctoral degrees.

Educational Eligibility

- **Age** → Maximum age 45 years
- **Educational qualification** → 10th and above
- **Tuition fee** → Rs. 15,000/-
- **Certificate awarding organization** → ICAR-IARI

Selection criteria

- Minimum eligibility to apply (10th and above)
- Participants need to be register and pay a fee to attend certificate course
- Reservation for category as per govt. of india rules (OBC/SC/ST)

***No TA/DA will be provided for taking part in admission process**

How to apply

For details refer: https://www.iari.res.in/bms/latest-news/indexphp. The candidate need to fill the Proforma and send the filled in Proforma along with all education related documents (10/12/UG/PG/any other diploma/certificate course) to head_micro@iari.res.in. For further details contact Dr. Livleen Shukla, Principal Scientist, ICAR-IARI, New Delhi-110012 Email: lshukla65@gmail.com

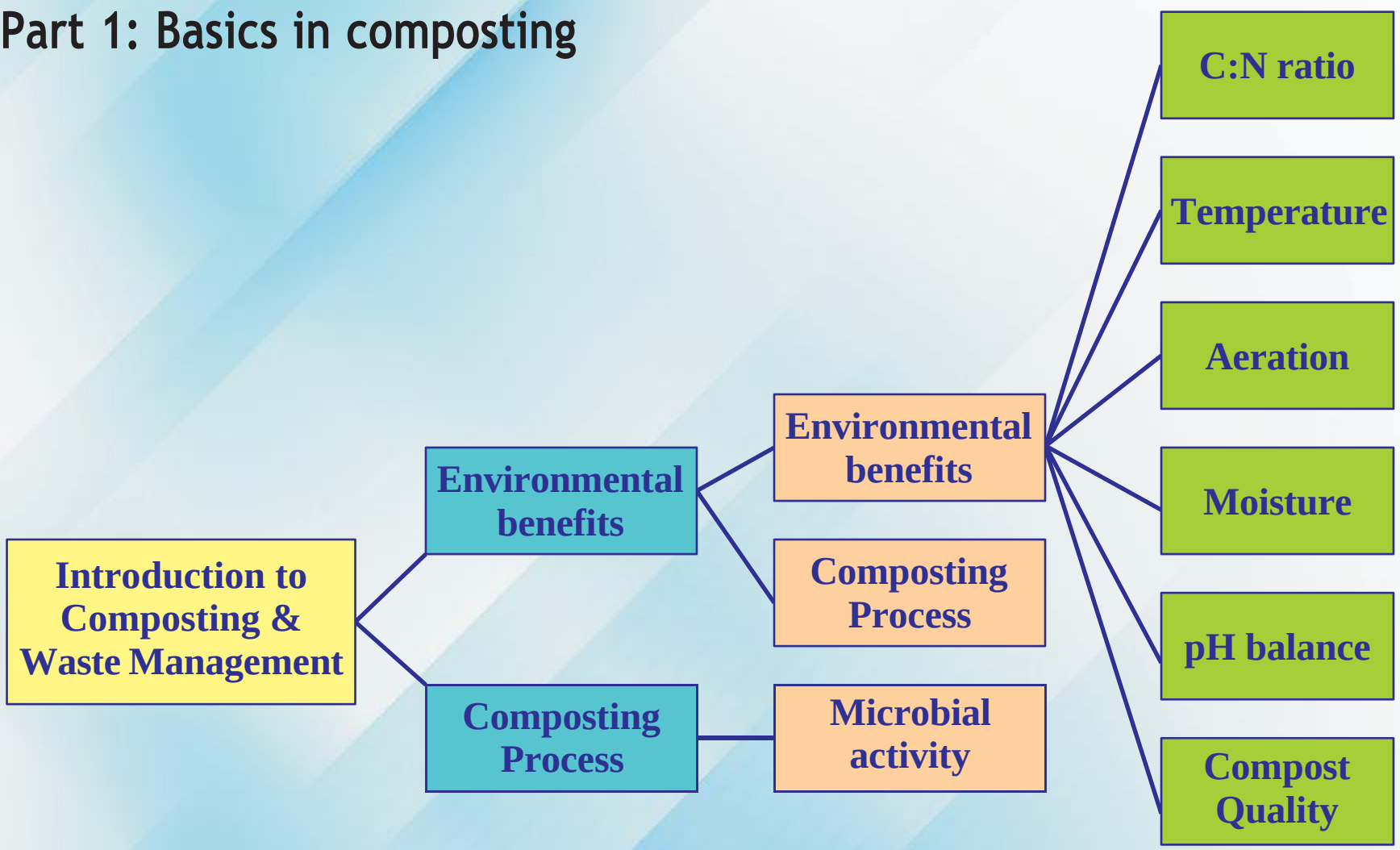
LEARNING OUTCOME

- Capacity building in the area of composting
- Skill Develop-ment
- Entrepre-neurship Develop-ment
- Possibility of launching start ups
- Monitoring and manage-ment
- Quality Testing of Compost as per FCO Guidelines
- Job opportuni-ties

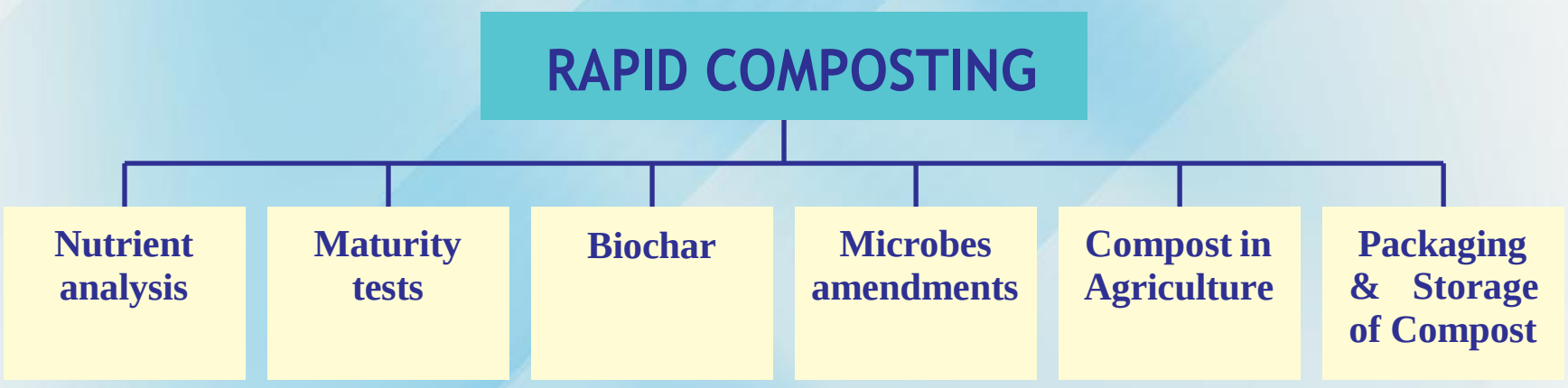
Syllabus : Theory

Basic concept of composting technology

Part 1: Basics in composting



Part 2: Advances in composting



Part 3: Applied composting Technology

Syllabus

Basic concept of composting technology

Unit 1: Fundamentals of Composting

- ✓Definition, Scope, and Importance of Composting
- ✓Benefits of Composting (Environmental, Agricultural, and Economic)
- ✓Types of Composting (Aerobic, Anaerobic, Vermicomposting, Industrial, etc.)
- ✓Composting vs. Landfilling and Incineration
- ✓Integrated Nutrient Management (INM)

Unit 2: Compostable Materials & Preparation

- ✓Organic Waste Classification (Green vs. Brown Waste)
- ✓Carbon to Nitrogen (C:N) Ratio & Its Role in Decomposition
- ✓Suitable & Unsuitable Materials for Composting
- ✓Pre-Treatment of Waste for Efficient Composting

Unit 3: Composting Techniques & Methods

- ✓Small-Scale vs. Large-Scale Composting
- ✓Home Composting (Kitchen & Garden Waste Management)
- ✓Pit, Heap, Windrow Composting
- ✓Trench & Aerated Static Pile Composting
- ✓Vermicomposting: Role of Earthworms & Maintenance
- ✓Bokashi Composting & Other Advanced Techniques

Syllabus : Practical

Unit 1: Fundamentals of Composting

- **Definition**
  - Scope
  - Importance
  - Benefits
- **Types**
  - Aerobic
  - Anaerobic
  - Vermicomposting
  - Industrial
- **Composting vs. Landfilling**
  - Incineration
  - Integrated Nutrient Management

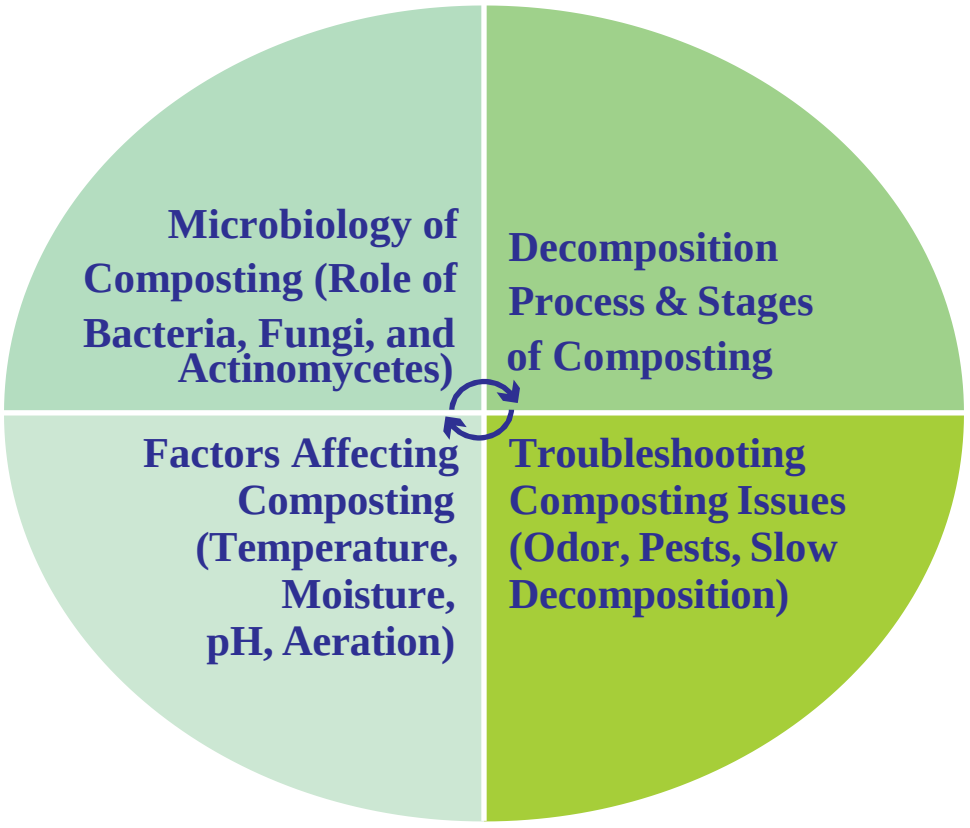
Unit 2: Compostable Materials & Preparation

- Organic Waste Classification
- C:N) Ratio & Its Role in Decomposition
- Pre-treatment of Waste for Efficient Composting

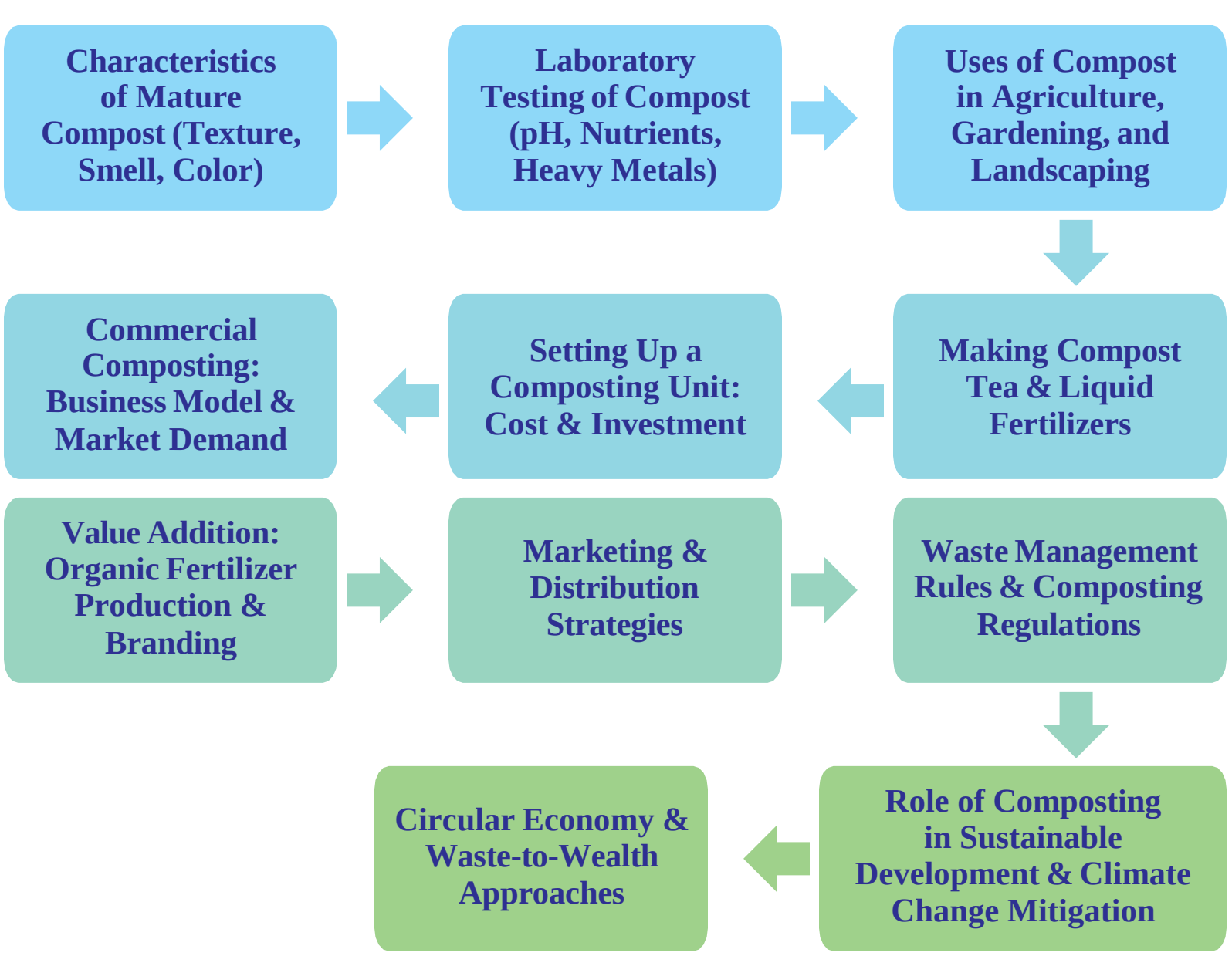
Unit 3: Composting Techniques & Methods

- Small-Scale vs. Large-Scale Composting
- Home Composting (Kitchen & Garden Waste Management)
- Windrow & Aerated Static Pile Composting
- Pit, Heap, Windrow Composting
- Vermicomposting: Role of Earthworms & Maintenance
- Bokashi Composting & Other Advanced Techniques

Unit 4: Scientific Aspects of Composting



Unit 6: Compost Quality Control & Applications



Practical Training & Field Work

- Hands-on Composting: Setting Up & Managing Composting Bins
- Field Visit: Composting Facility / Vermicomposting Unit / Waste Management Plant
- Soil Testing: pH, Moisture, and Microbial Activity in Compost
- Project Work: Designing & Implementing a Small-Scale Composting Model

Assessment & Certification

- Written Exam: Multiple Choice & Descriptive Questions
- Practical Evaluation: Composting Demonstration
- Project Submission: Report on a Composting Initiative
- Certification: Awarded Upon Successful Completion

Career Prospects After Completion

- Organic Farming & Sustainable Agriculture
- Waste Management Consultant
- Composting Business Entrepreneur
- Government & NGO Waste Management Projects
- Waste Management & Green Initiatives

Performa Form

The Graduate School
ICAR-Indian Agricultural Research Institute
New Delhi-110012

Application for Admission to
3 Months Skill Development Course on

Affix your passport size photo here

1. Name of the Skill Development Course applying for_____

_____

2. Full Name (in Block Letter)_____
3. Name of Father / Guardian/ Husband_____
4. (a) Address for correspondence (in Block Letters)_____

_____

_____

_____Pin Code_____

Phone No:_____Email I.D:_____

(b) Permanent Address(in Block Letter)_____

_____

_____

5. (a) Date of Birth _____
   (b) Age _____
   (c) Nationality _____
   (d) Sex _____

6. Category _____

7. Academic Qualifications:

Qualification	Disipline	Passing Year	Name of School/College	University	Precentage/ CGPA
10					
10+2/ Diploma					
Degree					
Others					

8. I declare that the particulars given above are correct and that I will, if admitted, abide by the rules 6 regulations of IARI.

Place:_____

Date:_____

Signature of the Applicant