



JANARDAN BHAGAT SHIKSHAN PRASARAK SANSTHA'S

CHANGU KANA THAKUR

ARTS, COMMERCE & SCIENCE COLLEGE, NEW PANVEL (AUTONOMOUS)

INNOVATION, INCUBATION & ENTREPRENEURSHIP CELL

BIOFERTILIZER TECHNOLOGY TRAINING & RESEARCH CENTRE

www.ckthakurcollege.net

Policy

Policy for Biofertilizer Production On-Job Training Program

Introduction:

This policy outlines the guidelines for the on-job training program in biofertilizer production offered by the college's small-scale biofertilizer industry. The program aims to provide students with practical experience in all aspects of biofertilizer production, preparing them for careers in the field of sustainable agriculture.

Target Participants:

- Students enrolled in relevant programs (e.g., Agriculture, Biotechnology, Environmental Science)
- Individuals seeking training in biofertilizer production

Program Objectives:

- Equip participants with the knowledge and skills required for biofertilizer production.
- Provide hands-on experience in culturing beneficial microorganisms.
- Foster understanding of carrier material preparation and formulation.
- Inculcate safe laboratory practices and quality control procedures.
- Develop an appreciation for the importance of biofertilizers in sustainable agriculture.

In addition to the core program objectives, students specializing in Accounting & Finance and Management Studies will gain:

- **Accounting & Finance:**

- Practical experience in costing biofertilizer production processes.
- Understanding of financial management principles in a small-scale biofertilizer industry.
- Development of skills in record-keeping, inventory control, and financial reporting for biofertilizer production.

- **Management Studies:**

- Exposure to production planning and scheduling for biofertilizer manufacturing.
- Understanding of quality management principles in biofertilizer production.
- Development of skills in resource management, team leadership, and marketing strategies for biofertilizer products.

Program Structure:

- **Duration:** The program will be offered in modules, with each module lasting for a specified duration (e.g., 1 week, 2 weeks). The total program duration can be adjusted based on the chosen curriculum.

- **Curriculum:** The curriculum will cover theoretical and practical aspects of biofertilizer production, including:

- Types of biofertilizers and their benefits
- Isolation and selection of beneficial microorganisms (e.g., Rhizobium, Azotobacter)
- Media preparation and sterilization techniques
- Large-scale culturing of microorganisms
- Carrier material selection, sterilization, and treatment
- Biofertilizer formulation, mixing, and quality control procedures
- Packaging, storage, and marketing of biofertilizers
- Safety protocols and waste management practices

In addition to the core curriculum, students in Accounting & Finance and Management Studies will participate in specialized modules:

- **Accounting & Finance:**

- Biofertilizer production costing methods (e.g., activity-based costing)
- Inventory management of raw materials and finished biofertilizer products
- Financial statement analysis for a small-scale biofertilizer industry

- Budgeting and forecasting for biofertilizer production
- **Management Studies:**
- Production planning and scheduling techniques relevant to biofertilizer production
- Quality management systems in biofertilizer production (e.g., Good Manufacturing Practices)
- Team leadership and communication skills in a biofertilizer production setting
- Marketing strategies for biofertilizers, targeting farmers and agricultural businesses
- **Assessment:** Participants will be evaluated through a combination of methods, including written exams, practical demonstrations, and project work.

Selection Process:

- Students can apply through the college portal based on eligibility criteria (e.g., program enrollment, academic performance).
- External candidates can submit applications with relevant qualifications.
- A selection committee will review applications and shortlist candidates for interviews.

Roles and Responsibilities:

- **Faculty:** Responsible for curriculum development, delivery of training modules, supervision of practical sessions, and assessment of participants.
- **Industry Staff:** Assist faculty in training, provide insights into industrial practices, and ensure safety protocols are followed.
- **Participants:** Actively participate in training sessions, complete assigned tasks, and demonstrate acquired knowledge and skills.
- **College Administration:** Provide overall program oversight, ensure resources are available, and facilitate collaboration between faculty and industry staff.

Students specializing in Accounting & Finance and Management Studies will have additional responsibilities:

- **Accounting & Finance:**
- Assist with recording production costs and expenses.
- Prepare inventory reports for raw materials and finished biofertilizer products.
- Analyze financial data to assess the profitability of biofertilizer production.
- Develop basic budgets and forecasts for the biofertilizer industry.
- **Management Studies:**
- Participate in production planning meetings, contributing to scheduling tasks.
- Assist in implementing quality control procedures for biofertilizer production.

- Work within teams to ensure efficient production processes.
- Develop marketing materials promoting the benefits of the college's biofertilizers.

By incorporating these additional elements, the program caters to students from diverse academic backgrounds, equipping them with valuable skills applicable to the business aspects of biofertilizer production.

Program Duration:

The program will be offered in modules, with each module carrying a specific number of credits. To ensure a consistent workload and align with industry expectations, participants will be required to complete **30 work hours for each credit**. The total program duration will vary depending on the chosen curriculum and the number of credits offered.

Here's how this duration will be determined:

- **College and Faculty Decision:** The college, in consultation with faculty members who will oversee the program, will determine the number of credits each module carries. This will be based on the complexity of the covered topics and the practical experience involved.
- **Work Hour Calculation:** Once the credit structure is established, the total program duration can be calculated by multiplying the number of credits by 30 work hours per credit. For example, a 2-credit program would require participants to complete $2 \text{ credits} * 30 \text{ hours/credit} = 60 \text{ hours}$ of work.

Participant Requirements:

- Participants must abide by the program duration as determined by the college and faculty. This ensures everyone receives a comprehensive learning experience while adhering to the set workload expectations.
- The specific schedule for completing the required work hours within each module will be communicated to participants in advance. This may involve a combination of classroom sessions, laboratory work, assignments, and industry exposure, depending on the curriculum design.

Benefits of Defined Duration:

- **Standardized Learning:** A set program duration with work hour requirements ensures a consistent level of knowledge and practical experience for all participants.
- **Industry Relevance:** Aligning the program with industry expectations (e.g., 30 hours per credit) provides valuable insights into the workload demands of biofertilizer production careers.
- **Workload Management:** Knowing the total program duration allows participants to effectively manage their time and studies alongside the on-job training commitment.

Certification:

Upon successful completion of the program, participants will receive a certificate from the college recognizing their participation and acquired skills in biofertilizer production.

Safety:

- All participants will be required to attend a safety orientation session before commencing practical work.
- Personal protective equipment (PPE) will be mandatory in the laboratory and production areas.
- Safe laboratory practices and proper waste disposal procedures will be strictly enforced.

Continuous Improvement:

- Regular feedback will be collected from participants, faculty, and industry staff to assess the effectiveness of the program.
- The program curriculum and delivery methods will be reviewed and updated periodically to reflect evolving industry practices and advancements in biofertilizer technology.

Conclusion:

This on-job training program provides a valuable platform for students and individuals to gain practical experience in biofertilizer production. By equipping participants with the necessary skills and knowledge, the program contributes to promoting sustainable agricultural practices and fostering a skilled workforce in this growing field.

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Biofertilizer Technology Training and Research Centre

A Hub for Sustainable Agriculture

Established under the Innovation, Incubation and Entrepreneurship Cell of the college, our Biofertilizer Technology Training and Research Centre is dedicated to fostering sustainable agriculture through cutting-edge research and practical training in biofertilizer technology. Our state-of-the-art Centre is equipped to provide comprehensive training and research opportunities in this field.

Key Features of Our Centre:

- **On-Job Training Program:**
 - Hands-on experience in all aspects of biofertilizer production.
 - Training modules for students from various disciplines, including Agriculture, Biotechnology, Environmental Science, Accounting & Finance, and Management Studies.
 - Curriculum covering theoretical and practical aspects, from microorganism isolation to product marketing.
 - Emphasis on safety protocols, quality control, and sustainable practices.
 - Certification upon successful completion of the program.
- **Research Facilities:**
 - Well-equipped laboratories for conducting research on biofertilizer development and application.
 - Collaboration with industry experts and academic institutions to advance the field.
 - Focus on innovative research projects to address challenges in sustainable agriculture.

Our Products:

We offer a range of biofertilizers in both solid and liquid formulations:

- **NFB (Nitrogen Fixing Bacteria):** Enhances nitrogen availability to plants.
- **KMB (Phosphate Solubilizing Bacteria):** Improves phosphorus uptake by plants.
- **PSB (Potash Solubilizing Bacteria):** Increases potassium availability to plants.

Why Choose Our Centre?

- **Experienced Faculty:** Our faculty comprises experienced researchers and industry experts who provide quality training and mentorship.
- **State-of-the-Art Facilities:** Our well-equipped laboratories and infrastructure ensure a conducive learning environment.

- **Practical Approach:** Our focus on practical training enables students to gain hands-on experience and develop industry-ready skills.
- **Sustainable Agriculture:** We are committed to promoting sustainable agriculture through the use of biofertilizers and other eco-friendly technologies.

Join us in our mission to cultivate a greener future through biofertilizer technology.

For more information and to enroll in our training programs, please contact:

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