TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN, SIRCILLA
DEPARTMENT OF BOTANY
Academic year 2022-2023
DEPARTMENT ACTIVITIES

Student seminar

Topic : Tissue Culture

Date :19-05-2022

Venue :class room

Introduction:

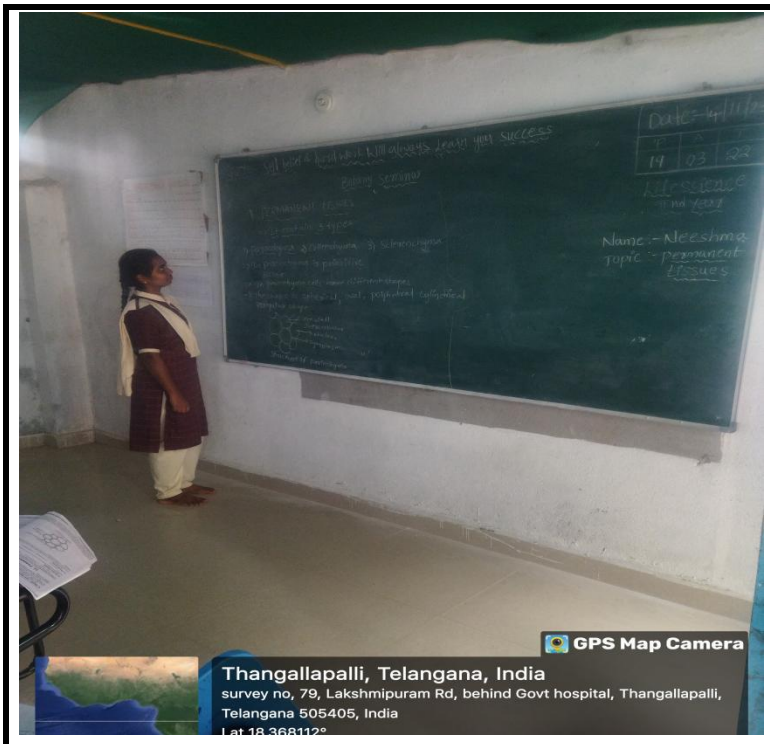
The Department of Botany conducted student seminar on the topic Tissue culture
Tissue culture, also known as micropropagation, is a biotechnological technique that involves the growth and maintenance of plant cells, tissues, or organs under sterile conditions in a nutrient medium. This technique has revolutionized the field of agriculture and horticulture by offering rapid multiplication of plants, preservation of rare and endangered species, and production of disease-free plants. The seminar aimed to introduce TTWRDC degree students to the principles, methods, and applications of tissue culture in modern agriculture.

Principles of Tissue Culture:

- Ex plant selection and preparation
- Sterilization techniques
- Nutrient media composition
- Hormonal regulation for growth and differentiation

Methods of Tissue Culture:

- Ex-plant culture
- Callus induction and regeneration
- Somatic embryo genesis
- Organogenesis
- In vitro flowering and fruiting



Applications of Tissue Culture:

- Mass propagation of elite plant varieties
- Clonal propagation of fruit trees, ornamental plants, and medicinal herbs
- Production of disease-free planting material
- Conservation of endangered plant species
- Genetic transformation for trait improvement
- Production of secondary metabolites

Challenges and Future Directions:

- Contamination control
- Genetic stability of regenerated plants
- Cost-effectiveness and scalability
- Integration with other biotechnological tools
- Exploration of novel applications

Seminar Highlights:

- Demonstrations of tissue culture techniques, including ex-plant preparation, media preparation, and aseptic handling.
- Case studies showcasing successful applications of tissue culture in commercial agriculture, horticulture, and forestry.
- Interactive sessions to address students' queries regarding the practical aspects and career opportunities in tissue culture.

Conclusion:

The seminar provided TTWRDC degree students with a comprehensive understanding of tissue culture and its significance in modern agriculture. By imparting theoretical knowledge and practical skills, the seminar aimed to inspire students to explore further research and career opportunities in the field of plant biotechnology. Tissue

culture offers immense potential for addressing the challenges of food security, environmental conservation, and sustainable agriculture, making it a valuable tool for future agricultural professionals.

Feed back :

Department of botany conducted a seminar to BZC 3rd year 6th semester students they learn t about the tissue culture and their organs and appropriated artificial anointment and their uses of an tissue culture and their propagation this information learn t in this seminar.

HARITHA HARAM

Date :03-06-2022

Venue : seminar hall

Introduction:

The Department of Botany organized Haritha Harm event aimed at promoting environmental awareness and encouraging tree plantation among the students of the Telangana Tribal Welfare Residential Degree College . The event was held on 03-06-2019.

Objectives:

1. To raise awareness about the importance of environmental conservation and tree plantation.
2. To actively involve our students in contributing to green initiatives.
3. To foster a sense of responsibility towards the environment among the student community.
4. To enhance the green cover and biodiversity of the college campus and surrounding areas.

Activities:

Preparatory Phase:

A group comprising faculty members, students, and administrative staff was formed to plan and execute the event.

Event Execution:

Inauguration Ceremony:

The event commenced with an inauguration ceremony attended by dignitaries, faculty, and students.

Tree Plantation Drive:

Students actively participated in planting saplings of various native tree species in designated areas of the college campus and nearby locations.

Environmental Awareness Sessions:

Short sessions were conducted to educate students about the importance of trees, their role in mitigating climate change, and the significance of maintaining ecological balance.

Outcomes:

Active Participation:

The event witnessed enthusiastic participation from our students, faculty, and staff members.

Tree Plantation:

A significant number of saplings were planted, contributing to the enhancement of the green cover in the college campus and surrounding areas.

Environmental Awareness:

Students gained a better understanding of environmental issues and their role in sustainable development through the awareness sessions and workshops.

Community Engagement:

The event garnered attention from the local community, fostering a sense of environmental responsibility beyond the college campus.

Conclusion:

The Haritha Ha-ram initiative organized by the Department of Botany for our students was a resounding success, fostering environmental awareness, community engagement, and active participation in green initiatives. By nurturing a culture of environmental responsibility, the event has laid the foundation for sustainable development and stewardship of natural resources among the student community.

Feed back:

Students came to know about the haritha haram very well and they participated with interest

WORLD ENVIRONMENT DAY

DATE: 05-06-2020

Introduction:

Department of botany in collaboration with department of Micro biology and Zoology celebrated world environment day World Environment Day, celebrated annually on June 5th, is a global event encouraging awareness and action for the protection of the environment. This year, the degree students at Telangana Tribal Welfare Residential Degree College (TTWRDC) Thangallapalli enthusiastically participated in various activities to mark this important day.

Objectives

The celebration aimed to:

Raise awareness about environmental issues.

Promote sustainable practices among students

Encourage active participation in environmental conservation efforts.

Activities Conducted:

Te event featured a series of activities designed to engage students and promote environmental consciousness. These activities included:

Tree Plantation Drive:

Students, along with faculty members, planted over 200 saplings around the college campus.

The initiative aimed to increase green cover and contribute to the fight against climate change.

Environmental Awareness program:

The rally helped raise awareness among the local community about the importance of protecting the environment.

Poster Making and Essay Writing Competition:

Competitions were held to encourage creative expression on environmental themes.
Winning entries were displayed around the campus to inspire others.

Outcomes:

The World Environment Day celebration at TTWRDC Thangallapalli had a significant impact:
Increased Awareness: Students gained a deeper understanding of environmental issues and the importance of individual and collective action.
Enhanced Engagement: The activities fostered a sense of responsibility and commitment among students to protect the environment.
Community Involvement: The rally and clean-up drive engaged the local community, spreading thmessage of environmental conservation beyond the campus.

Conclusion:

The celebration of World Environment Day at TTWRDC Thangallapalli was a resounding success. The degree students actively participated in various activities, demonstrating their commitment to environmental sustainability. The event not only raised awareness but also instilled a sense of responsibility towards the environment among the students and the local community. It is hoped that such initiatives will continue to inspire and drive positive environmental actions in the future.

Student seminar

Topic : Cloning Vectors

Date : 08-06-2022

Venue:class room

Introduction:

Department of botany countermanded by student seminar on the topic Cloning vectors play a crucial role in molecular biology and genetic engineering by facilitating the insertion, replication, and expression of foreign DNA sequences in host organisms. Understanding the principles and types of cloning vectors is fundamental for students pursuing degrees in biotechnology, genetics, and related fields. In this seminar report, we delve into the concept of cloning vectors, their types, applications, and advancements in the field.

Cloning Vectors:

Cloning vectors are DNA molecules used to carry foreign DNA fragments into host cells during the process of molecular cloning. They are designed to replicate autonomously within the host cell and often contain select able markers, origin of replication, and multiple cloning sites. The selection of an appropriate cloning vector depends on factors such as the size of the DNA fragment to be cloned, the host organism, and the desired application.

Types of Cloning Vectors:

1. Plasmid Vectors: Circular DNA molecules found in bacteria, plasmids are the most commonly used cloning vectors due to their stability and ease of manipulation.
2. Bacteriologic Vectors: Bacteriologist are viruses that infect bacteria, and their genomes can be engineered to carry foreign DNA for cloning purposes.
3. Cos-mid Vectors: Cosmic are hybrid vectors that combine features of plasmids and bacteriologist, allowing for the cloning of larger DNA fragments.
4. Phage Lambda Vectors: Derived from the bacteriologic lambda, these vectors are suitable for cloning very large DNA fragments and constructing genomics libraries.
5. Yeast Artificial Chromosomes (YACs) and Bacterial Artificial Chromosomes (BA Cs): These vectors are capable of carrying large DNA fragments, including entire eukaryotic chromosomes, making them valuable tools for genomics studies.

Applications of Cloning Vectors:

1. Gene Cloning: Cloning vectors are used to isolate and amplify specific genes of interest for further study.
2. Recombination DNA Technology: Vectors enable the insertion of foreign DNA into host cells to produce recombination proteins, vaccines, and genetically modified organisms.
3. Molecular Biology Research: Cloning vectors facilitate the construction of gnomic libraries, mapping of DNA sequences, and investigation of gene function.
4. Biomedical Applications: Vectors are utilized in gene therapy, drug development, and diagnostics for treating genetic disorders and diseases.

Conclusion:

In conclusion, cloning vectors are indispensable tools in molecular biology and genetic engineering, empowering researchers to manipulate and study DNA with precision and efficiency. Understanding the principles and applications of cloning vectors is essential for TTWRDC degree students pursuing careers in biotechnology, genetics, and related fields, as they embark on journeys to advance scientific knowledge and innovation.

Feed back :

Department of botany conducted a seminar to BZC 3rd year 6th semester students they learn t about the cloning vectors and their prorogation and their vectors and also a genetic sequence their information learn in this seminar.

WORLD MOSQUITO DAY

Activity:- World Mosquito day

Title: World Mosquito Day Awareness Programme

Date:- 20/08/2022

Department of botany in collaboration with department of Micro biology and Zoology celebrated world environment day WORLD MOSQUITODAYA typical World Mosquito Day awareness program involves a range of activities aimed at educating communities about the dangers of mosquito-borne diseases and promoting prevention measures.

Objectives:

- Outline the specific goals of the program, such as raising awareness, distributing mosquito nets, or conducting educational sessions.

Activities Conducted:

Provide a detailed description of the activities organized during the program, including:

- Educational seminars on mosquito-borne diseases and prevention methods.
- Community clean-up drives to eliminate mosquito breeding sites.
- Health screenings for mosquito-borne diseases.
- Interactive workshops or demonstrations on mosquito control measures.

Participation and Engagement:

- Describe the level of participation from the community members, local authorities, and other stakeholders.
- Highlight any notable engagement or feedback received during the program.

Impact and Outcomes:

- Discuss the impact of the awareness program on the community, such as increased knowledge about mosquito-borne diseases and prevention methods.
- Share any quantitative data, such as the number of mosquito nets distributed or participants in educational sessions.
- Reflect on the overall success of the program in achieving its objectives.

Conclusion:

Summarize the key findings and outcomes of the World Mosquito Day awareness program. Emphasize the importance of continued efforts to combat mosquito-borne diseases and protect public health.

PG ORIENTETION

DATE:18-8-2022

Introduction:

Department of botany conducted pg orientation class orientation class for Postgraduate (PG) students in the Botany department was conducted at Telangana Tribal Welfare Residential Degree College. This event was organized to welcome the new batch of students, provide them with an overview of the curriculum, introduce them to faculty member.

Objectives:

The primary objectives of the orientation class were:

1. To welcome new students and help them transition smoothly into the PG program.
2. To provide an overview of the Botany curriculum, including core and elective subjects.
3. To introduce students to the faculty and staff of the Botany department.
4. To inform students about the college's academic policies, resources, and support services.
5. To encourage interaction among students, fostering a sense of community and collaboration.

Program Schedule

Core Subjects:Detailed explanation of core subjects, their importance, and how they contribute to the overall understanding of Botany.

Elective Subjects: List and description of elective subjects available, and guidance on choosing electives based on career interests.

Academic Policies and Support Services

Examination and Grading System: Overview of the evaluation process, grading system, and academic integrity policies.
Library and Laboratory Facilities: Information about library resources, laboratory facilities, and how to access them.
Student Support Services: Details about counseling services, mentorship programs, and other support services available to students.

Highlights:

Special lectures by renowned botanists and researchers, providing insights into current trends and research opportunities in Botany.
Interactive Workshops: Hands-on workshops on topics such as herbarium techniques, plant identification, and molecular biology.

Networking Opportunities:

Opportunities for students to network with faculty, alumni, and industry professionals.

Conclusion:

The PG orientation class for Botany students at TTWRDC was a successful event that effectively introduced new students to the academic environment and resources available to them. The program facilitated a smooth transition into the postgraduate program and helped foster a sense of community among the students. The positive feedback from participants highlighted the value of the orientation in setting the stage for a productive and enriching academic journey.

OZONE DAYY AWERNESS PROGRAMME

Title: “Ozone Day Awareness Programme ”

Date: September 16, 2022

Introduction:

Department of botany in collaboration with department of Micro biology and Zoology celebrated On September 16, 2022, degree students organized a rally in honor of Ozone Day, aiming to raise awareness about the importance of preserving the ozone layer and combating ozone depletion. The rally aimed to educate the public about the detrimental effects of ozone depletion and promote sustainable practices to protect theozone layer.

Objectives:

Raise awareness about the significance of the ozone layer in protectinglife on Earth.
Educate the public about the causes and consequences of ozonedepletion.
Promote sustainable actions to mitigate ozone depletion, such asreducing emissions of ozone-depleting substances.
Mobilize support for environmental protection initiatives within thecommunity.

Activities:

Rally :

Degree students organized a march through the community, carrying banners, placards, and posters with messages advocating for ozone protection and environmental conservation.
Street Performances: Students performed street plays, skits, and musical performances highlighting the importance of preserving the ozone layer and addressing climate change.

Pledges:

Attendees were encouraged to take pledges committing to adopt eco-friendly practices and support initiatives aimed at preserving the ozone layer.

Interactive Sessions:

Students engaged in interactive sessions with the public, answering questions, and discussing ways individuals can contribute to ozone layer protection.

Outcomes:

Increased Awareness:
The rally succeeded in raising awareness about ozondepletion and its implications for the environment and human hea

Community Engagement:

The interactive nature of the rally facilitated meaningful discussions and engaged the community in environmental conservation efforts.

Conclusion:

The Ozone Day Awareness Programme Rally organized by degree students was a resounding success, achieving its objectives of raising awareness, fostering community engagement, and promoting sustainable actions to protect the ozone layer. Such initiatives play a crucial role in mobilizing collective efforts to address environmental challenges and build a sustainable future.

AWARENESS PROGRAM ON CANCER DAY

Title: Cancer Awareness

Date: 07-11-2022

Introduction:

Department of botany in collaboration with department of Micro biology and Zoology celebrated

On Cancer Day, TTWRDC Thagallapalli College organized an awareness program aimed at educating students about cancer prevention, early detection, and treatment options. The event aimed to dispel myths surrounding cancer and promote a proactive approach to health.

Activities:

Expert Talks:

Renowned oncologists and healthcare professionals were invited to deliver informative talks on various types of cancer, risk factors, and preventive measures.

Interactive Sessions:

Students engaged in interactive sessions where they could ask questions and clarify doubts regarding cancer.

Awareness Campaigns:

Posters, pamphlets, and visual aids were used to disseminate crucial information about cancer and its impact on health.

Screening Camps:

Free cancer screening camps were set up on-campus to encourage students to undergo preventive screenings.

Outcomes:

- Increased Awareness: The program successfully increased awareness among students about the importance of cancer prevention and early detection.

Empowered Students: By providing accurate information and debunking myths, students felt more empowered to take control of their health.
ncouraged Preventive Measures: Many students expressed interest in adopting healthier lifestyles and seeking regular screenings after the event.

Conclusion:

The awareness program on Cancer Day at TTWRDC Thagallapalli College was a resounding success, fostering a culture of health consciousness among students. By equipping them with knowledge and resources, the college hopes to contribute to reducing the burden of cancer in the community.

Student seminar

Topic : WWR, NMPB, UNESW, NBPGR

Date : 10-12-2022

Venue: student seminar

Introduction:

Department of botany countermanded by student seminar on the topic In the realm of environmental conservation and biodiversity preservation, several organizations play pivotal roles. Among them are WWR (World Wide Fund for Nature), NMPB (National Medicinal Plants Board), UNESW (United Nations Environment Programme World Conservation Monitoring Centre), and NBPGR (National Bureau of Plant Genetic Resources). Understanding their objectives, functions, and contributions is crucial for degree students aspiring to work in fields related to ecology, conservation biology, botany, and environmental science.

World Wide Fund for Nature (WWR):

WWR, formerly known as the World Wildlife Fund, is one of the largest and most recognized environmental organizations globally. Established in 1961, its mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth. WWR works

through a network of offices in over 100 countries and collaborates with governments, businesses, communities, and individuals to address issues such as climate change, habitat destruction, and wildlife poaching.

National Medicinal Plants Board (NMPB):

NMPB is a governmental organization in India under the Ministry of Ayush, dedicated to the promotion of medicinal plants conservation and sustainable utilization. Founded in 2000, NMPB aims to coordinate and implement policies for the growth and development of the medicinal plants sector. It supports research, cultivation, and conservation projects, facilitates market linkages, and promotes the use of traditional medicinal plants for healthcare and economic development.

United Nations Environment Programme World Conservation Monitoring Centre (UNESW):

UNESW is a branch of the United Nations Environment Programme (UNEP), headquartered in Cambridge, United Kingdom. Its primary function is to provide information and assessments on biodiversity and ecosystems to support global conservation efforts. UNESW collects and analyzes data, conducts research, and offers technical assistance to governments and organizations worldwide. Its work contributes to the implementation of international agreements such as the Convention on Biological Diversity (CBD) and the Ramsar Convention on Wetlands.

National Bureau of Plant Genetic Resources (NBPGR):

NBPGR, based in New Delhi, India, is responsible for the conservation and sustainable use of plant genetic resources for food and agriculture. Established in 1976, NBPGR collects, conserves, characterizes, and evaluates germplasm of various crop plants and their wild relatives. It supports research and breeding programs aimed at enhancing crop productivity, resilience, and nutritional quality. NBPGR also facilitates access to genetic resources for scientific research and crop improvement efforts.

Conclusion:

The World Wide Fund for Nature (WWR), National Medicinal Plants Board (NMPB), United Nations Environment Programme World Conservation Monitoring Centre (UNESW), and National Bureau of Plant Genetic Resources (NBPGR) are instrumental in promoting environmental conservation, biodiversity preservation, and sustainable development. Degree students interested in these fields can benefit greatly from understanding the roles and contributions of these organizations, as they offer opportunities for research, collaboration, and professional growth in the areas of ecology, botany, and environmental science.

Feed back :

Department of botany conducted a seminar to the 3rd year students thus learn t about the WWR,NMPB,UNESCO,and NBPGR this information learn t in this seminar.
Students names : B.Munni ,S.Prasanya

AWARENESS PROGRAM ON AIDS DAY

Title: Awareness Program on AIDS Day Rally

Date: 01-12-2022

Introduction:

Department of botany in collaboration with department of Micro biology and Zoology celebrated awareness program on aids day the students of TTWRDC Thagallapalli College organized a comprehensive awareness program to commemorate AIDS Day. The program aimed to educate the college community and the local population about HIV/AIDS, its prevention, and destigmatization.

Event Highlights:

Rally:

The day commenced with a vibrant rally through the streets of Thagallapalli. Led by enthusiastic students carrying banners and placards, the rally attracted attention from bystanders and effectively spread awareness about AIDS.

Educational Workshops:

Following the rally, educational workshops were conducted within the college premises. These workshops covered various aspects of HIV/AIDS, including transmission, prevention methods, treatment options, and dispelling common myths and misconceptions.

Interactive Sessions:

Students actively engaged in interactive sessions where they could ask questions, share personal experiences, and participate in role-playing activities to better understand the challenges faced by individuals living with HIV/AIDS.

Distribution of Educational Materials:

Pamphlets, brochures, and other informative materials were distributed among participants and the surrounding community to serve as ongoing reminders of the importance of HIV/AIDS awareness.

Outcomes:

The awareness program received widespread support and participation from students, faculty, and the local community. By the end of the event, attendees demonstrated a better understanding of HIV/AIDS, increased awareness of preventive measures, and a commitment to combatting stigma associated with the disease.

Conclusion:

The AIDS Day awareness program organized by TTWRDC Thagallapalli College was a resounding success in promoting knowledge and understanding of HIV/AIDS within the college and the wider community. Through collaborative efforts and proactive initiatives, the students demonstrated their dedication to fostering a supportive and informed environment for addressing health-related challenges.

Student seminar

Topic : WWR, NMPB, UNESW, NBPGR

Date : 10-12-2022

Venue: student seminar

Introduction:

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Students names : B.Munni ,S.Prasanya

ICT/ PPT

Date: 11-12-2022

Topic :Micro-propagation

Introduction:

Department of botany taken with digital classes by students a topic on micro propagetion Information and Communication Technology (ICT) has revolutionized the educational landscape, providing innovative methods for teaching and learning. In this report, we explore the use of ICT, specifically PowerPoint presentations, to teach degree students about micro propagation, a crucial technique in plant biotechnology.

Importance of ICT in Education:

ICT tools, such as PowerPoint, enhance the learning experience by providing visual aids, interactive content, and the ability to present complex information in a structured and accessible manner. They support various learning styles and promote engagement and retention of information.

Overview of Micropropagation:

Micropropagation is a method of rapidly multiplying plant material to produce a large number of progeny plants using modern tissue culture techniques. It is essential for the propagation of plants that do not produce seeds, have a long seed-to-seed cycle, or are difficult to propagate through traditional methods.

Key Stages of Micropropagation:

Initiation Stage:

Selection and sterilization of explant (plant material) and placement in a culture medium.

Multiplication Stage:

Rapid increase in the number of explants by repeated subculturing.

Rooting Stage:

Inducing root formation in the shoots developed during multiplication.

Acclimatization Stage:

Gradual adaptation of tissue-cultured plants to natural environmental conditions.

Structure of the PowerPoint Classes:

The PowerPoint classes are designed to cover the theoretical and practical aspects of micropropagation. The classes are divided into several modules, each focusing on different stages and techniques of micropropagation.

Module 1: Introduction to Micropropagation
- Definition and importance
- Historical background
- Applications in agriculture, horticulture, and conservation

Module 2: Techniques and Equipment
- Overview of tissue culture laboratory setup
- Sterilization techniques and aseptic conditions
- Types of culture media and their preparation

Module 3: Stages of Micro propagation
- Detailed explanation of initiation, multiplication, rooting, and acclimatization stages
- Factors affecting each stage
- Troubleshooting common issues

Module 4: Case Studies and Practical Applications
- Case studies of successful micro propagation projects
- Hands-on activities and virtual lab simulations
- Discussion of research papers and current trends

Benefits of Using PowerPoint in Teaching Micropropagatio:

Visual Learning:

Diagrams, photos, and videos help students understand complex biological processes.

Interactive Content:
Quizzes, animations, and interactive slides engage students and enhance learning.
Structured Presentation:
Organized slides ensure a logical flow of information, aiding comprehension.
Flexibility:
PowerPoint presentations can be easily updated and customized to include the latest research and findings.

Conclusion:

Integrating ICT, particularly PowerPoint presentations, in teaching micropropagation offers significant advantages in terms of student engagement, understanding, and retention. It allows for a more dynamic and interactive educational experience, preparing degree students with the knowledge and skills necessary for their future careers in plant biotechnology and related fields.

This report highlights the role of ICT in modern education and demonstrates how PowerPoint can be effectively utilized to teach complex scientific topics such as micropropagation. The structured approach ensures comprehensive coverage of the subject matter, facilitating a deeper understanding for degree students.

Student seminar

Topic : Bacterial Cell Structure

Date :14-12-2022

Venue:class room

Introduction:

Department of botany conducted on student seminar topic on bacterial cell structure Bacteria are among the simplest forms of life, yet their structural complexity is fascinating. Understanding the structure of bacterial cells is crucial for various fields including microbiology, medicine, and biotechnology. This seminar aims to provide TTWRDC degree students with a comprehensive overview of bacterial cell structure, including its components and their functions.

Overview of Bacterial Cell Structure:

Cell Envelope :

Provides structural support and protection. In Gram-positive bacteria, it's thick and composed mainly of peptidoglycan. Gram-negative bacteria have a thinner layer of peptidoglycan surrounded by an outer membrane.
Cell Membrane (Plasma Membrane)
Controls the passage of substances in and out of the cell. It's composed of a phospholipid bi-layer embedded with proteins.

Cytoplasmic Structures :

-Cytoplasm : Gel-like substance within the cell where various cellular processes occur.
- Ribosomes : Sites of protein synthesis, found in the cytoplasm.

- Nucleoid : Region where the bacterial chromosome (DNA) is located. Unlike eukaryotic cells, bacteria lack a true nucleus.

Plasmids :

Small, circular DNA molecules that can replicate independently of the bacterial chromosome. They often carry genes for antibiotic resistance and other traits.

Appendages :

Flagella : Long, whip-like structures used for bacterial motility.
Pili (Fibrillate) :

Short, hair-like structures used for attachment to surfaces and for conjugation (transfer of genetic material between bacterial cells).
Capsules and Slime Layers :

Outer layers that provide protection and help bacteria adhere to surfaces

Inclusions :

Storage Granules : Accumulations of nutrients such as glycogen or lipids for energy storage.
Gas Vesicles :
Structures that provide buoyancy to aquatic bacteria.
Magnetosomes :
Membrane-bound organelles that contain magnetic crystals, aiding in navigation in some bacteria.

Conclusion:

In conclusion, bacterial cell structure is diverse and intricate, reflecting the adaptability of bacteria to various environments. Understanding these structures is fundamental for tackling infectious diseases, harnessing their biotechnological potential, and deciphering their ecological significance. Continued research in this field promises to unveil even more insights into the fascinating world of bacterial cells.

QUIZ

Topic : Exploring Gene Laboratories

Date : 20-12-2022

Venue:class room

Introduction:

Department of botany coundected a quiz for students on a topic Gene laboratories, also known as genetic laboratories, are pivotal centers for conducting research, analysis, and experimentation in the field of genetics. These facilities play a crucial role in advancing our understanding of genetics, genomics, and their applications in various domains such as medicine, agriculture, forensics, and biotechnology. This report aims to provide degree students with a comprehensive overview of gene laboratories, including their functions, equipment, methodologies, and significance in contemporary scientific research.

Functions of Gene Laboratories:

Gene laboratories serve multiple functions, which can be broadly categorized as follows:

1. Research: Gene laboratories conduct fundamental and applied research in genetics and related fields. Researchers explore topics such as gene expression, genetic variation, inheritance patterns, and the molecular mechanisms underlying genetic disorders.

2. Diagnosis and Testing: These laboratories offer diagnostic services to identify genetic disorders, chromosomal abnormalities, and predispositions to certain diseases. They perform various tests, including DNA sequencing, polymer chain reaction (PCR), and prokaryotic, to analyze genetic material and detect abnormalities.

Forensic Analysis:

Gene laboratories assist in forensic investigations by analyzing DNA evidence to establish identities, determine relationships, and solve crimes. DNA profiling techniques are widely used in forensic genetics for identifying suspects and victims.
Gene laboratories are equipped with sophisticated instruments and infrastructure to facilitate various genetic analyses and experiments. Common equipment found in these facilities include:

Conclusion:

In conclusion, gene laboratories serve as vital hubs for genetic research, diagnosis, and innovation. Their multifaceted functions, advanced equipment, and diverse methodologies enable scientists to unravel the complexities of the genetic code and harness its potential for the benefit of society. Degree students aspiring to pursue careers in genetics or related fields stand to gain valuable insights and opportunities by exploring the world of gene laboratories.

Participants : total no of students are 14 members

1. B.Akhila
2. B.Gouthami
3. E.Soumya
4. G.Loukitha
5. G.Naveena
6. G.Mounika
7. K.Anusha
8. L.Mounika
9. L.Mounika
10. L.Soujanaya
11. M.Divya bindhu
12. M.Sangeetha
13. P.Soujanaya
14. S.Sravani

Students feed back :

1. B.Akhila

It is improve my knowledge and understand the topic is very well.

2. B.Gouthami

I like the way to the understand the topic is in this quiz.

National Sciences Day

Date :- 28/02/2023

The celebration of National Science Day in our degree college typically involves a range of activities aimed at promoting scientific awareness and fostering a spirit of inquiry among students

Inaugural Ceremony:

The day usually begins with an inaugural ceremony where faculty members, students, and sometimes invited guests gather to kickstart the celebrations. This may include speeches by dignitaries highlighting the significance ofscience and its impact on society.

Science Exhibitions:

one of the central features of the celebration is often a science exhibition where students showcase innovative projects, experiments, and models related to various scientific disciplines. These exhibitions provide an opportunity for students to demonstrate their creativity and understanding of scientific concepts.

Seminars and Workshops:

We organized seminars and workshops on specific scientific topics or emerging areas of research. Experts from academia, industry, or research institutions may be invited to deliver talks and interact with students, providing insights into cutting-edge developments in science.

Quiz Competitions:

Quiz competitions focused on science-related trivia and concepts are commonly held during National Science Day celebrations. These competitions not only test students' knowledge but also encourage them to delve deeper into scientific principles and theories.

Debates and Panel Discussions:

Debates and panel discussions on scientific topics of societal relevance are another way to engage students in critical thinking and debate. These sessions provide a platform for students to express their opinions and perspectives on issues such acclimate change, biotechnology, or space exploration.

Conclusion :-

Overall, the celebration of National Science Day in a degree college serves as a platform to ignite curiosity, stimulate scientific thinking, and cultivate a passion for exploration and discovery among students.

Student seminar

Topic : Micro-propagation in Tissue Culture and Biotechnology

Date : 03-02-2023

Venue: class room

Introduction:

Department of botany conducted a student seminar on the topic of micro propagation
Micro propagation, a significant technique in tissue culture and biotechnology, refers to the process of rapidly multiplying plant material under sterile conditions. It involves the growth of plant cells, tissues, or organs in a controlled environment, often using a nutrient medium supplemented with plant hormones. This seminar aims to elucidate the principles, applications, and advancements in micro propagation for degree students.

Concepts:

Principles of Micro propagation:

Explaining the importance of sterile conditions to prevent contamination.
Understanding the role of plant growth regulators (PGRs) in controlling growth and differentiation.
Describing the stages involved in micro propagation: initiation, multiplication, rooting, and acclimatization.

Techniques and Methodologies:

Detailing the different methods of micropropagation such as shoot culture, somatic embryogenesis, and organogenesis.
Highlighting the importance of explant selection and preparation for successful culture initiation.
Discussing the composition of culture media and the optimization of nutrient requirements.

Applications in Biotechnology:

Addressing the significance of micro-propagation in mass multiplication of elite plant varieties.
Exploring its role in the conservation of endangered species and genetic resources.
Discussing its application in genetic engineering, somaclonal variation, and crop improvement programs.

Challenges and Future Prospects:

Identifying the challenges associated with micro-propagation, including somaclonal variation, hydroelectricity, and genetic stability.
Discussing emerging technologies such as bioreactors and automated systems for large-scale production.
Speculating on future advancements and potential integration with other biotechnological tools.

Case Studies and Examples:

Presenting case studies highlighting successful applications of micro propagation in commercial plant production, restoration ecology, and pharmaceutical industries.
Showcasing examples of crops and ornamental plants that have been successfully propagated through tissue culture techniques.

Conclusion:

Micro-propagation in tissue culture and biotechnology is a versatile and powerful tool with diverse applications in agriculture, horticulture, and conservation. Understanding its principles, methodologies, and applications is essential for students pursuing degrees in biological sciences or related fields. As technology advances, micro-propagation is expected to play an increasingly vital role in meeting the global demand for high-quality plant material and in addressing challenges such as food security and environmental conservation.

Feed back :

Department of botany conducted a seminar to the 1st year 1st semester they learn t about micropropagation of the tissue culture and biotechnology this information learn t in this seminar.

Student seminar

Topic : Algae in the Plant Kingdom

Date:17-02-2023

Venue: class room

Introduction:

Department of botany conducted student seminar on the topic algae in the plant kingdom
The seminar on "Exploring the Diversity and Significance of Algae in the Plant Kingdom" aimed to provide degree students with a comprehensive understanding of the role and significance of algae within the broader context of the plant kingdom. Algae, often overlooked, play a crucial ecological, economic, and scientific role in various ecosystems worldwide.

Key Topics Covered:

Introduction to Algae:
Definition and classification within the plant kingdom.
Characteristics distinguishing algae from other plant groups.
Evolutionary significance and historical context.

Diversity of Algae:

Overview of major algal groups (e.g., green algae, red algae, brown algae, diatoms, flagellation).
Morphological, physiological, and ecological diversity within each group.
Adaptations allowing algae to thrive in diverse habitats (e.g., freshwater, marine, terrestrial

Ecological Roles:

Primary producers in aquatic ecosystems: contribution to oxygen production and nutrient cycling.
Importance of algae in food webs: serving as food for various organisms, from zooplankton to larger marine mammals.
Algal blooms: causes, consequences, and management strategies.

Economic and Industrial Significance:

commercial applications of algae in various industries, including food, pharmaceuticals, cosmetics, and bio fuels.
Biotechnological advances utilizing algae for bio-remediation, wastewater treatment, and carbon sequestration.
Potential of algae cultivation for sustainable agriculture and aquaculture practices.

Current Research and Future Prospects:

Cutting-edge research in algal biology, genomics, and biotechnology.
Emerging trends in algae-based bio-product development and commercialization.
Challenges and opportunities for harnessing algae for sustainable development and environmental conservation.

Conclusion:

The seminar provided degree students with a comprehensive overview of the diversity, ecological significance, and economic potential of algae within the plant kingdom. By highlighting the role of algae as key primary producers and their diverse applications in various industries, the seminar aimed to foster a deeper appreciation for these often-underestimated organisms and inspire further research and innovation in algal biology and biotechnology.

Feed back :

Department of botany conducted a seminar to the 1st year students they learn t about the plant kingdom,algae this information learn t in this seminar

Field trip

Topic: Collection of Roots and Shoots of Plants

Date : 25-02-2023

Location:thangalapalli

Introduction:

The field trip aimed to provide degree students with hands-on experience in collecting roots and shoots of various plants to enhance their understanding of plant anatomy, morphology, and ecology. It took place on [date] at [location], where a diverse range of plant species could be found, offering ample opportunities for study and collection.

Objectives:

1. To familiarize students with the diversity of plant roots and shoots.
2. To demonstrate proper techniques for collecting plant specimens.
3. To discuss the ecological significance of roots and shoots in plant physiology and adaptation.

Field Trip Activities:

Introduction to Plant Anatomy and Morphology: The trip began with a brief lecture discussing the structure and function of roots and shoots in plants. This laid the foundation for understanding the significance of collecting specimens for study.

Field Study and Collection: Students were divided into small groups and provided with collection kits including hand trowels, secateurs, and specimen bags. Under the guidance of instructors, they explored the designated area to identify and collect various plant species. Emphasis was placed on selecting healthy specimens and documenting their habitat conditions.

Identification and Documentation: After collecting specimens, students returned to a designated area for identification and documentation. They used botanical keys and field guides to identify the plants they collected, paying close attention to root structures, shoot morphology, and any unique features.

Discussion and Analysis:

Instructors facilitated discussions on the significance of the collected specimens, highlighting the diversity of root systems and shoot adaptations observed. Students were encouraged to analyze their findings in the context of plant ecology and ecosystem dynamics.

Data Recording and Reporting: Students recorded their observations and findings in field notebooks, including details such as species name, location, habitat characteristics, and any notable adaptations observed. This data would be used for further analysis and reporting.

Learnings:

Diversity of Plant Forms: Students gained a deeper appreciation for the wide range of root and shoot structures found in different plant species, reflecting their adaptive strategies to various environmental conditions.

Importance of Hands-on Learning: Engaging in fieldwork allowed students to apply theoretical knowledge to real-world situations, reinforcing concepts learned in the classroom and fostering a deeper understanding of plant biology.

Ecological Perspectives: Through discussions on plant ecology, students developed an understanding of the interconnections between roots, shoots, and their surrounding environment, recognizing the vital role of plants in ecosystem functioning.

Student feed back :

Students are enjoyed this trip they were very enthusiastic they were collected different types of roots and shoots this trip was created a learning with fun and engaging in students.

Students names and sign

1. P.Anusha
2. K.Mounika
3. J.Priyanka
4. E.Pushpalatha
5. M.Asmitha
6. A.Kalyani
7. CH.Samatha
8. M.Padamavathi
9. D.Neesma
10. G.Nikhila
11. B.Praveena

ICT/PPT

TOPIC: Plant Tissue Culture

DATE: 03-03-2023

Introduction:

Department of botany taken by classes for the student a topic on Plant tissue culture is a collection of techniques used to maintain or grow plant cells, tissues, or organs under sterile conditions on a nutrient culture medium of known composition

objectives :

- The production of exact copies of plants that produce particularly good flowers, fruits, or other desirable traits.
- To quickly produce mature plants.
- The production of multiples of plants in the absence of seeds or necessary pollinators to produce seeds.
- The regeneration of whole plants from plant cells that have been genetically modified.

Tissue culture is used to develop thousands of genetically identical plants from one single parent plant known as somaclones, and this process is known as micropropagation

- Tissue culture is also known as micropropagation and helps in the development of disease-free plants

Importance of ICT in Education and Teaching-Learning Process:

ICT plays the same role in our information and communication process and their outcomes, as played by other technologies in making our life comfortable and purposeful. ICT in education has tremendous potential to serve and help the people connected with the process and product of education in many ways.

1. ICT can bring the existing educational system in alignment with the knowledge-based, information-rich society by providing services of sophisticated tools, techniques and methods at its disposal.

2. Use of ICT can bring about a paradigm shift in traditional views and methods of teaching — learning process. Some of the changes are as follows:

a. It will help in transitioning from a broadcast model of learning to interactive learning. Thus making the students active and participate in the teaching — learning process.

b. Helps in the process of transitioning from teacher-centered instruction to learner-centered instruction. Students become self-reliant and self-directed in acquisition and application of knowledge and skills

c. Shifts emphasis from teaching to learning thereby creating a more interactive and engaging learning environment for both teachers and students.

d. Changes the role of teachers from a mere knowledge-transmitter to that of a learning-facilitator, knowledge guide or navigator and an active co-learner along with students.

Importance

- Provides a means of propagating plants that are difficult to grow from seeds or cuttings.
- Allows for the production of disease-free plants.
- Used for genetic modification and plant breeding.

Techniques in Plant Tissue Culture

Explants Selection and Preparation

- Small sections of plant tissue (explants) are selected.
- Common explants: leaves, stems, roots, and flower parts.

Sterilization
- Essential to prevent contamination.
- Typically involves surface sterilization using chemicals like sodium hypochlorite or ethanol.

Culture Media
- Composed of essential nutrients: salts, vitamins, amino acids, and plant growth regulators (hormones).
- Murashige and Skoal (MS) medium is the most commonly used.

Applications of Plant Tissue Culture

Micro propagation
- Rapid production of a large number of plants.
- Used for commercial propagation of ornamental plants, fruits, and vegetables.

Germplasm Conservation

- Storage of genetic resources.
- Cryopreservation of plant tissues.

Genetic Engineering

- Introduction of new traits via transformation techniques.
- Development of genetically modified (GM) crops with improved traits like pest resistance and drought tolerance.

Plant Breeding

- Production of hybrids and new varieties.
- Monoclonal variation: variation seen in plants that have been produced by plant tissue culture.

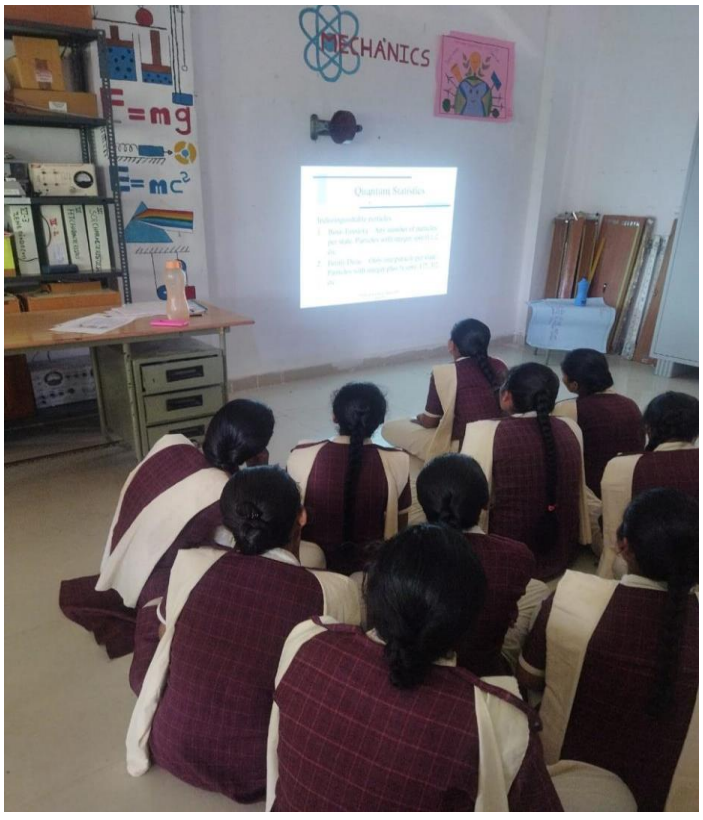
Disease Elimination

- Production of virus-free plants through meristem culture.

Advantages

Rapid Multiplication: Large numbers of plants can be produced in a short time.
-Disease-Free Plants: Ensures healthy plant stock.
-Conservation: Preservation of rare or endangered plant species.

Conclusion: Plant tissue culture is a vital tool in modern agriculture and biotechnology, offering numerous benefits from rapid plant propagation to genetic modification. Despite its challenges, the technique holds great potential for the future of plant breeding, conservation, and production.



Plant tissue culture is a vital tool in modern agriculture and biotechnology, offering numerous benefits from rapid plant propagation to genetic modification. Despite its challenges, the technique holds great potential for the future of plant breeding, conservation, and production.

PowerPoint Presentation Outline

Slide 1: Title Slide
- Plant Tissue Culture
- Subtitle: "An Overview for Degree Students"

Slide 2: Introduction
- Definition
- History
- Importance

3Slide 3: Techniques
- Explants Selection
- Sterilization
- Culture Media
- Inoculation
- Incubation
- Sub-culturing
- Regeneration

Slide 4: Applications
- Micro propagation
- Germplasm Conservation
- Genetic Engineering
- Plant Breeding
- Disease Elimination

Slide 5: Case Studies
- Orchid Micro propagation
- Banana Cultivation
- Genetic Modification of Tomatoes

Slide 6: Advantages
- Rapid Multiplication
- Disease-Free Plants
- Conservation

Slide 7: Limitations
- Cost
- Technical Expertise
- Contamination Risk

Slide 8: Conclusion
- Recap of Key Points
- Future Prospects

This structure provides a comprehensive overview of plant tissue culture, suitable for a degree-level ICT class. It can be expanded or condensed as needed based on the specific requirements and depth of coverage desired.

Student seminar

Topic : Micro-propagation and Somatic Hybridization

Date :17-03-2023

Venue:class room

Introduction:

Department of botany conducted the student seminar topic on Micro-propagation and somatic hybridization are two important techniques in modern plant biotechnology that have revolutionized the field of agriculture and horticulture. These techniques offer promising solutions for the rapid multiplication of elite plant varieties and the development of novel plant traits. This seminar aims to provide TTWRDC degree students with an understanding of these techniques and their applications in crop improvement.

Micro-propagation:

Micro-propagation, also known as tissue culture, involves the aseptic culture of plant cells, tissues, or organs in a nutrient medium to produce multiple identical copies of the parent plant. This technique offers several advantages over conventional methods of propagation, including rapid multiplication, year-round production irrespective of seasons, and the production of disease-free planting material. The process typically involves the following steps:

- Selection of ex-plants (plant parts used for initiating cultures)
- Surface sterilization
- Establishment of cultures on a suitable nutrient medium
- Multiplication of shoots or somatic embryos
- Rooting of shoots or conversion of somatic embryos into plant lets
- Acclimatization of plant lets to ex vitro conditions

Somatic Hybridization:

Somatic hybridization involves the fusion of protoplasm (plant cells with the cell wall removed) from different plant species or varieties to generate hybrid cells. Unlike sexual hybridization, somatic hybridization bypasses the limitations imposed by sexual incompatibility barriers, allowing the creation of hybrids between distantly related species. This technique facilitates the retrogression of desirable traits from wild relatives or other species into cultivated crops. The steps involved in somatic hybridization include:

- Isolation and culture of protoplasm from donor plants
- Protoplasm fusion using chemical or physical methods
- Regeneration of hybrid cells into whole plants
- Selection and characterization of somatic hybrids
- Evaluation of hybrid plants for agronomic ally important traits

Applications:

The integration of micro-propagation and somatic hybridization techniques has led to significant advancements in crop improvement and plant breeding. Some key applications include:
Rapid multiplication of elite plant varieties for commercial production
Conservation of endangered plant species through in vitro propagation
Improvement of crop traits such as yield, disease resistance, and stress tolerance
Development of novel plant varieties with enhanced nutritional quality or pharmaceutical properties

Conclusion:

Micro-propagation and somatic hybridization are powerful tools in modern plant biotechnology that offer efficient means for crop improvement and genetic manipulation. By understanding the principles and applications of these techniques, TTWRDC degree students can contribute to the sustainable enhancement of agricultural productivity and biodiversity conservation.

Feed back :

Department of botany conducted a seminar to the 3rd year students they learn t about the micro propagation of somatic hybridization this information learn t in this seminar.

Poster presentation

Date: 18-03-2023

Venue: seminar hall

Introduction:

The Department of Botany organized a Poster Presentation Day for students, providing a platform for budding botanists to showcase their research and innovative ideas. This event aimed to foster academic exchange, cultivate presentation skills, and celebrate the achievements of students in the field of botany.

Event Highlights:

Student Presentations:

- Students from various semesters presented posters showcasing their research findings, experiments, and projects related to different aspects of botany. The topics covered a wide range, including plant physiology, ecology, taxonomy, and biotechnology.
- Each presentation was followed by a Q&A session, allowing attendees to engage with presenters, ask questions, and delve deeper into the research topics.

Interactive Sessions:

- Interactive sessions were conducted to encourage discussions and debates on relevant issues in botany. Students actively participated, sharing their perspectives and exchanging ideas with peers and faculty members.

Poster Competition:

- A poster competition was held to recognize outstanding presentations. Judges evaluated the posters based on criteria such as scientific content, clarity of presentation, visual appeal, and overall impact.
- Winners were announced in various categories, encouraging healthy competition and motivating students to strive for excellence in their research endeavors.

Conclusion:

The Department of Botany's Poster Presentation for our students was a resounding success, fostering a culture of academic excellence, innovation, and collaboration. Through engaging presentations, insightful lectures, and interactive sessions, students had the opportunity to showcase their research, expand their knowledge, and forge meaningful connections within the botany community. This event not only celebrated the achievements of students but also inspired them to pursue further exploration and discovery in the fascinating realm of botany.

Feed back :

in this session students prepared posters and discussed about the poster presentation .

World Forest Day

Date :21-03-2023

Venue :seminar hall

Introduction:

Department of botany organized a world forest day
World Forest Day, also known as International Day of Forests, is observed on March 21st every year. This day aims to raise awareness about the importance of forests and trees in our lives and to promote actions for their sustainable management and conservation. As students of botany, it's crucial to understand the significance of forests and our responsibility in protecting them.

Importance of Forests:

Forests play a vital role in maintaining ecological balance and sustaining life on Earth. They provide habitat for numerous species, regulate the climate, protect watersheds, and are a source of food, medicine, and livelihoods for millions of people worldwide. Additionally, forests are essential in combating climate change by absorbing carbon dioxide and releasing oxygen through ph

Challenges Facing Forests:

Despite their immense value, forests face numerous threats, including deforestation, illegal logging, urbanization, and climate change. These activities result in habitat loss, biodiversity decline, soil degradation, and contribute to global warming. It's imperative to address these challenges through collective efforts to ensure the long-term survival of forests and the well-being of future generations.

The Role of Botany:

Botany, as the scientific study of plants, plays a crucial role in understanding forest ecosystems and developing strategies for their conservation and restoration. Botanists study the diversity, distribution, ecology, and physiology of forest flora, enabling us to better comprehend their functioning and dynamics. Through research and innovation, botanists contribute to the development of sustainable forest management practices, biodiversity conservation, and reforestation efforts.

Actions for Conservation:

As future botanists, it's essential for us to actively participate in conservation initiatives aimed at protecting forests. This can involve advocating for policies that promote sustainable forestry practices, engaging in reforestation projects, conducting research on plant species and ecosystems, and educating communities about the importance of forests. By taking concrete actions, we can contribute to safeguarding our planet's green heritage for generations to come.

Conclusion:

World Forest Day serves as a reminder of the invaluable role that forests play in sustaining life on Earth and the urgent need to protect them. As students of botany, we have a responsibility to use our knowledge and skills to advocate for forest conservation and contribute to efforts aimed at preserving these vital ecosystems. Together, let's celebrate and protect our forests for a greener and healthier planet.

Feed back :

students know about the world forest day in this session and they learn t about the forest and its important points ecology suitable and invest in their conversation and care .

Extension lecturer

Topic : Exploring Prospects in Botany

Date : 04-04-2023

Venue:seminar hall

Introduction:

Department of botany coundected the extension lecturer on Exploring prospects in botany scientific study of plants, encompasses a vast array of disciplines crucial for understanding and sustaining life on Earth. As the field continues to evolve, the need for disseminating knowledge and fostering interest in botany becomes increasingly important. Extension lecturers play a pivotal role in bridging the gap between academia and the public, offering valuable insights and engaging presentations to diverse audiences.

Significance of Extension Lecturers in Botany:

Education and Outreach:

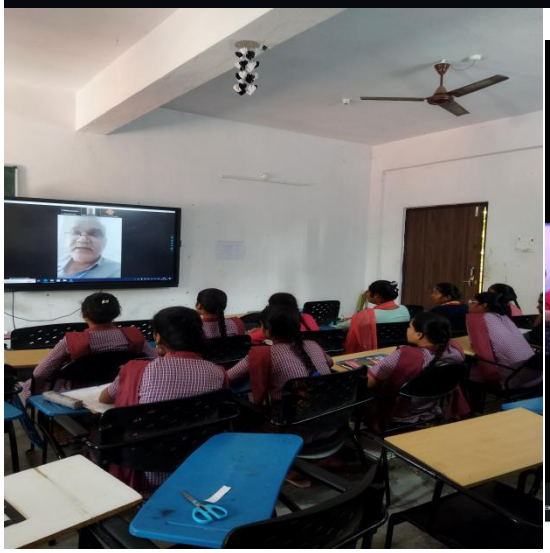
Extension lecturers serve as ambassadors for botany, delivering informative talks, workshops, and demonstrations to schools, community groups, and the general public. Through their efforts, they promote environmental awareness, plant conservation, and sustainable practices.

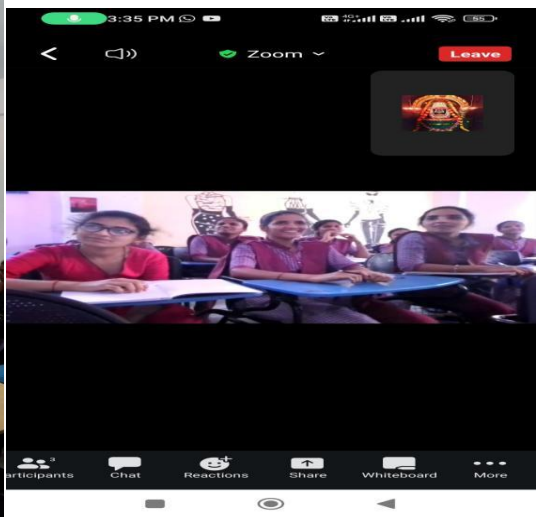
Knowledge Transfer:

By translating complex botanical concepts into accessible language, extension lecturers facilitate learning and inspire curiosity about the plant world. Their interactive sessions foster a deeper appreciation for plants and their significance in ecosystems, agriculture, medicine, and beyond.

immunity Engagement:

Extension lecturers build relationships with diverse communities, addressing local concerns and tailoring their presentations to specific interests and needs. By fostering dialogue and collaboration, they empower individuals to make informed decisions regarding plant conservation, gardening, and land management.





Challenges Facing Extension Lecturers:

Limited Resources:

Extension programs often operate on limited budgets, constraining the scope and frequency of outreach activities. Securing funding and resources for equipment, travel, and materials poses a significant challenge for extension lecturers.

Audience Engagement:

Capturing and maintaining audience interest can be challenging, particularly when addressing complex scientific topics. Effective communication strategies, interactive demonstrations, and multimedia tools are essential for enhancing engagement and retention.

Overcoming Misconceptions:

Addressing common misconceptions and dispelling myths about plants and their roles in the environment requires patience, empathy, and skillful communication. Extension lecturers must navigate cultural, socioeconomic, and educational barriers to promote accurate understanding and appreciation of botany.

Potential Avenues for Growth:

Digital Outreach:

Embracing digital platforms and virtual technologies enables extension lecturers to reach wider audiences and overcome geographical barriers. Online webinars, interactive modules, and social media campaigns offer innovative avenues for engaging with diverse stakeholders.

Collaborative Partnerships:

Establishing partnerships with botanical gardens, educational institutions, government agencies, and nonprofit organizations enhances the reach and impact of extension programs. By pooling resources and expertise, stakeholders can develop comprehensive outreach initiatives addressing local and global botanical issues.

Professional Development:

Providing training and professional development opportunities for extension lecturers enhances their effectiveness and expands their skill set. Workshops, conferences, and mentor ship programs empower lecturers to stay abreast of emerging trends, technologies, and pedagogical approaches in botany education.

Conclusion:

Extension lecturers play a vital role in promoting botanical literacy, environmental stewardship, and sustainable practices within communities. Despite facing challenges such as limited resources and audience engagement, extension programs hold immense potential for growth and innovation. By leveraging digital outreach, forging collaborative partnerships, and investing in professional development, extension lecturers can maximize their impact and inspire a new generation of plant enthusiasts and advocates.

Tobacco Day

Date: 30-05-2023

Venue: seminar hall

The Department of Botany organized a significant event in commemoration of Tobacco Day for the students of TTWRDC degree program. The objective was to raise awareness about the detrimental effects of tobacco on human health and the environment, and to advocate for a tobacco-free lifestyle among the youth.

Activities:

Awareness Seminar:

The event commenced with an informative seminar conducted by renowned experts in the field of health and botany. The seminar covered various aspects of tobacco consumption, including its impact on individual health, social consequences, and environmental degradation. Students were educated about the addictive nature of tobacco and the alarming statistics related to tobacco-related illnesses and fatalities.

Interactive Sessions:

Following the seminar, interactive sessions were conducted to engage the students actively. These sessions encouraged participants to share their perspectives on tobacco use and to discuss strategies for promoting tobacco cessation in their communities. Students were encouraged to ask questions and seek clarification on any doubts they had regarding tobacco and its effects.

Poster Competitions:

To foster creativity and critical thinking, poster and essay competitions were organized on the theme of "Say No to Tobacco." Participants showcased their artistic and literary talents by creating compelling posters and essays that conveyed powerful messages against tobacco consumption. Winners were awarded prizes as a token of appreciation for their efforts in spreading awareness.

Plantation Drive:

As a symbolic gesture towards promoting a healthier environment, a plantation drive was undertaken wherein students planted saplings of indigenous plant species. This activity underscored the importance of preserving biodiversity and combating environmental degradation exacerbated by tobacco cultivation and deforestation.

Outcome:

The Tobacco Day event organized by the Department of Botany served as a platform for raising awareness and fostering dialogue on the harmful effects of tobacco. Through informative sessions, interactive activities, and creative competitions, students gained valuable insights into the multifaceted impact of tobacco on human health and the environment. The event not only equipped students with knowledge but also inspired them to take concrete actions towards promoting tobacco cessation and advocating for healthier lifestyle choices.

conclusion:

the Tobacco Day event was a resounding success, thanks to the enthusiastic participation of students and the dedicated efforts of faculty members. It reinforced the department's commitment to promoting public health and environmental sustainability through education and community engagement.

Feed back :

the annual world day campaign {31 May 2, 2024} is an opportunity to raise awareness on the harmful and deadly efforts of tobacco use to understand the topic very well to students

ACADEMIC YEAR 2021-2022

Haritha Haram

Date :03-06-2021

Venue : seminar hall

Introduction:

The Department of Botany organized Haritha Harm event aimed at promoting environmental awareness and encouraging tree plantation among the students of the Telangana Tribal Welfare Residential Degree College . The event was held on 03-06-2021

Objectives:

1. To raise awareness about the importance of environmental conservation and tree plantation.
2. To actively involve our students in contributing to green initiatives.
3. To foster a sense of responsibility towards the environment among the student community.
4. To enhance the green cover and biodiversity of the college campus and surrounding areas.

Activities:

Preparatory Phase:

A group comprising faculty members, students, and administrative staff was formed to plan and execute the event.

Event Execution:

Inauguration Ceremony:

The event commenced with an inauguration ceremony attended by dignitaries, faculty, and students.

Tree Plantation Drive:

Students actively participated in planting saplings of various native tree species in designated areas of the college campus and nearby locations.

Environmental Awareness Sessions:

Short sessions were conducted to educate students about the importance of trees, their role in mitigating climate change, and the significance of maintaining ecological balance.

Outcomes:

Active Participation:

The event witnessed enthusiastic participation from our students, faculty, and staff members.

Tree Plantation:

A significant number of saplings were planted, contributing to the enhancement of the green cover in the college campus and surrounding areas.

Environmental Awareness:

Students gained a better understanding of environmental issues and their role in sustainable development through the awareness sessions and workshops.

Community Engagement:

The event garnered attention from the local community, fostering a sense of environmental responsibility beyond the college campus.

Conclusion:

The Haritha Haram initiative organized by the Department of Botany for our students was a resounding success, fostering environmental awareness, community engagement, and active participation in green initiatives. By nurturing a culture of environmental responsibility, the event has laid the foundation for sustainable development and stewardship of natural resources among the student community.

Feed back:

Students came to know about the haritha haram very well and they participated with interest

World Ozone Day

Date: 16-09-2021

Venue :seminar hall

Introduction:

The Department Botany in collaboration with zoology and micro biology ,chemistry organized a special event to commemorate World Ozone Day for the students of TTWRDC [w} siricilla World Ozone Day, observed annually on September 16th, is a significant occasion to raise awareness about the importance of protecting the ozone layer and mitigating ozone depletion.

Activities Conducted:

Awareness Seminar:

The event commenced with an awareness seminar conducted by faculty members of the Botany zoology,micro biology and chemistry. The seminar focused on explaining the importance of the ozone layer in protecting life on Earth, the causes and effects of ozone depletion, and the role of individuals and communities in ozone layer conservation. Interactive discussions were encouraged to ensure active participation from the students.

Poster Exhibition:

To foster creativity and enhance understanding, a poster exhibition was organized where students showcased their artwork and informative posters related to World Ozone Day. Topics ranged from the ozone layer's role in protecting life to sustainable practices for ozone layer conservation. The exhibition provided an opportunity for students to express their perspectives and engage in peer-to-peer learning.

Interactive Quizzes :

To reinforce learning outcomes in a fun and engaging manner, interactive quizzes were conducted. Questions related to ozone layer science, environmental policies, and sustainable practices were included to test students' knowledge and promote active participation.

Conclusion:

The world Ozone day celebration was a resounding success, providing our students with valuable insights into the significance of ozone layer protection and environmental conservation. Through seminars, lectures and interactive activities, students were empowered to become informed advocates for sustainable practices and guardians of the Earth's ozone layer. Such initiatives underscore the institution's commitment to fostering environmental stewardship among its students and contributing to a healthier planet for future generations.

QUIZ

Topic : Plant Diversity Classification and Conservation of Biodiversity

Date : 05-10-2021

Venue : class room

Introduction:

Department of botany conducted by student seminar on topic of plant diversity classification and conservation of biodiversity Plants are the backbone of life on Earth, providing oxygen, food, and habitats for countless organisms. Understanding their diversity and conserving their richness is crucial for maintaining ecosystem balance and ensuring human well-being. .

Classification of Plant Diversity:

Kingdom Plantain :
Plants belong to the kingdom Plantain, characterized by multicellular, photosynthetic organisms with cell walls composed of cellulose.

Division/Phylum :
The plant kingdom is divided into various divisions or phyla based on characteristics such as vascular tissue, reproductive structures, and seed formation.

Class :
Each division further breaks down into classes, such as Magnoliopsida (dicotyledons) and Liliopsida (monocotyledons), based on floral structures and other features.

Order, Family, Genus, and Species :
Plants are classified hierarchically into orders, families, genera, and species based on shared characteristics and evolutionary relationships.

Scope of Conservation of Biodiversity:

Preservation of Endangered Species :
Many plant species face extinction due to habitat loss, climate change, and human activities. Conservation efforts focus on preserving rare and endangered species through habitat protection and restoration.

Protection of Ecosystems :

Plants play a vital role in maintaining ecosystem balance. Conserving plant biodiversity helps preserve ecosystems, including forests, wetlands, and grasslands, which support diverse life forms and provide essential ecosystem services.

Utilization of Genetic Resources :

Plant diversity harbors valuable genetic resources with potential benefits for agriculture, medicine, and industry. Conservation efforts aim to safeguard these genetic resources through seed banks, botanical gardens, and ex situ conservation methods.

Promotion of Sustainable Practices :

Sustainable land management practices, such as agroforestry, organic farming, and sustainable logging, help mitigate the loss of plant diversity and promote ecosystem resilience.

Education and Awareness :

Raising awareness about the importance of plant diversity and the need for conservation is crucial. Educational programs, public outreach campaigns, and community involvement can foster a culture of conservation and sustainable living.

Conclusion:

Understanding the classification of plant diversity and the scope of conserving biodiversity is essential for effective conservation efforts. By preserving plant diversity, we not only protect ecosystems and species but also secure the benefits they provide for present and future generations. It is imperative that individuals, communities, and governments work together to safeguard the rich tapestry of plant life on our planet.

Participates : total no of students are 14 members

1. G.Loukitha
2. K.Anusha
3. L.Soujanaya
4. M.Divya bindhu
5. P.Soujanayan
8. V.Bindhu
9. V.Sravani
10. L.Mounika
11. G.Naveena
12. B.Akhila

6. S.Sunitha
7. S.Sravani
13. E.Soujanaya
14. B.Gouthami

Students feed back :

1. V.Sravani

It is improve my knowledge focus on observation rather than inference focus in the most important points.

2. K.Anusha

It is like the way to understand the topic in essay way to learn the topic.

Student seminar

Topic : Exploring Specialized Tissues in Plants

Date : 19-10-2021

Venue :class room

Introduction:

The seminar on "Special Tissues in Plants" aimed to provide TTWRDC degree students with an in-depth understanding of the diverse tissues that make up plants and their specialized functions. Plants possess a variety of tissues that enable them to perform essential functions such as support, transport, and protection. This seminar delved into the intricacies of these specialized tissues, shedding light on their structure, function, and significance in the overall biology of plants.

Student Covered:

Meristematic Tissue:
- Definition and characteristics of meristematic tissue.
- Types of meristematic tissue: apical, lateral, and interplanetary meristems.
- Role of meristematic tissue in plant growth and development.

Simple Permanent Tissues:
- Types: Parenchyma, Collenchyma, and Sclerenchyma.
- Structural features and functions of each tissue type.
- Importance in providing support, flexibility, and mechanical strength to plants.

Complex Permanent Tissues:
- Xylem and Phloem: Structure, components, and functions.
- Xylem: Transport of water and minerals.
- Phloem: Transport of organic nutrients.
- Vascular bundles and their arrangement in mono-cots and dicots.

Importance and Applications:

Understanding the specialized tissues in plants is crucial for various fields such as agriculture, horticulture, forestry, and botany. It provides insights into plant structure-function relationships, aiding in crop improvement, disease management, and environmental conservation efforts. Moreover, knowledge of plant tissues is fundamental for students pursuing careers in plant biology, biotechnology, and related disciplines.

The seminar on "Special Tissues in Plants" offered TTWRDC degree students a comprehensive overview of the diverse tissues that contribute to the growth, development, and survival of plants. By exploring the structure, function, and significance of these tissues, students gained valuable insights into the complex biology of plants and their adaptations to diverse environments. This understanding is vital for students aspiring to excel in fields related to plant sciences and contribute to advancements in agriculture, ecology, and biotechnology.

Feed back :

Students understand about special tissue in plants and they can learn more information on this topic and easy way to understand the topic very well.

Student seminar

Topic : Vegetative and Floral Characters.

Date : 10-11-2021

Venue:class room

Department of botany conducted by Vegetative and floral characters play a significant role in plant taxonomy and identification.

Vegetative characters refer to the features of plants that are not directly related to reproduction, such as leaves, stems, and roots.

Floral characters, on the other hand, are the features associated with the reproductive structures of plants, including flowers, fruits, and seeds.

This seminar aims to provide degree students with an in-depth understanding of vegetative and floral characters and their importance in plant classification.

Importance of Vegetative Characters:

- Vegetative characters are crucial for identifying plants, especially when they are not in flower or fruit.

Leaf morphology, arrangement, and venation patterns are commonly used vegetative characters for plant identification.

Stem characteristics such as texture, color, and presence of hairs or spines can also aid in plant classification.

Root systems, including root type and structure, provide additional clues for identifying plant species.

Key Floral Characters:

Floral characters are essential for understanding plant reproduction and evolution.

Flowers exhibit diverse structures, including petals, sepals, stamens, and pistils, which vary greatly among plant species.

The arrangement of floral parts, such as the number of petals and sepals, symmetry, and fusion, helps classify plants into different families and genera.

Fruits and seeds also possess distinctive characteristics that aid in plant identification and classification.

Methods of Studying Vegetative and Floral Characters:

- Botanists use various techniques to study vegetative and floral characters.
- Morphological observation involves examining plant structures using hand lenses, microscopes, and other tools.
- Botanical illustrations and diagrams are valuable resources for understanding the morphological features of plants.
- Molecular techniques, including DNA sequencing, are increasingly used to complement traditional morphological studies, providing insights into evolutionary relationships among plant taxa.

Practical Applications:

Knowledge of vegetative and floral characters is essential for various fields, including agriculture, horticulture, forestry, and conservation biology.

Plant identification skills are crucial for professionals working in botanical gardens, nurseries, herb aria, and environmental consulting firms.

Understanding the reproductive biology of plants is vital for crop breeding, hybridization programs, and conservation efforts aimed at preserving endangered species.

Conclusion:

In conclusion, a thorough understanding of vegetative and floral characters is fundamental for plant taxonomy, identification, and classification.

Degree students can benefit greatly from studying these characters, as they provide essential skills for careers in botany, agriculture, and related fields.

Continued research in this area contributes to our understanding of plant diversity, evolution, and ecological relationships, paving the way for advancements in various sectors reliant on plant resources.

Department of botany conducted a seminar to BZC 1st year 2nd semester students they learn t the vegetative and floral characters and their structural arrangement and their characteristics this information learn t in this seminar.

Student Name :P.Suvarna

FIELD TRIP

Topic : students take to field trip to Soil Pit

Date of Trip: 15-11-2021

Location: Thaganalpally

Participants: life science student

Introduction:

The field trip to explore soil pits was organized for degree students with the aim of providing practical insight into soil composition, structure, and its significance in various ecosystems. Soil pits offer a unique opportunity to observe different soil horizons and understand the processes that shape soil formation.

Purpose of the Trip:

1. To observe and analyze the different layers of soil.
2. To understand the characteristics and properties of each soil horizon.
3. To discuss the factors influencing soil formation and composition.
4. To evaluate the importance of soil in supporting plant growth and ecosystem functions.
5. To appreciate the role of soil conservation and management practices.

Activities Conducted:

Introduction to Soil Pits:

The trip began with a brief introduction to soil pits, explaining their significance in studying soil profiles and the methods used to excavate them.

Soil Pit Excavation:

Students actively participated in excavating a soil pit under the guidance of experienced instructors. The pit revealed distinct layers of soil, allowing students to observe the differences in texture, color, and structure.

Analysis of Soil Horizons:

Each layer of the soil pit was examined closely, and students were encouraged to identify the various soil horizons, such as O horizon (organic layer), A horizon (topsoil), B horizon (subsoil), and C horizon (parent material). Discussions revolved around the characteristics and processes responsible for the formation of each horizon.

Soil Sampling and Testing:

Samples of soil from different horizons were collected for further analysis. Students conducted basic soil tests, including texture analysis, pH measurement, and nutrient content assessment, to understand the chemical and physical properties of the soil.

Discussion Sessions:

Throughout the trip, there were interactive sessions where students discussed the factors influencing soil formation, such as climate, topography, parent material, organisms, and time (CLORPT). Case studies were presented to highlight the impact of human activities on soil degradation and the importance of sustainable soil management practices.

Conclusion and Reflection:

The field trip concluded with a reflection session where students shared their observations, insights, and questions. Emphasis was placed on the role of soil in supporting biodiversity, agriculture, and ecosystem services, underscoring the importance of preserving soil health for future generations.

Key L earnings:

1. Understanding soil composition and structure through direct observation.
2. Recognizing the influence of environmental factors on soil formation.
3. Appreciating the importance of soil conservation and sustainable land management practices.
4. Gaining practical skills in soil sampling and analysis.
5. Enhancing critical thinking and problem-solving abilities through discussions and reflections.

Students feed back :

Students enjoyed this trip they were very enthusiastic they were collected different types of soils and soil pit trip this trip was created a learning with fun and engaging in their students.

Students names and sign

1. B.Munni
2. B.Anusha
3. B.Manasa
4. G.Kavitha
5. G.Priyanka
6. R.Ankitha
7. K.Rajitha
8. P.Anjali
9. D.Joythi
10. M.Shylaja
11. K.Shruthi
12. M.Manasa
13. P.Suvarna
14. S.Prasanya
15. R.Ankitha

Plantation

Date: 17-11-2021

Venue : seminar hall

Introduction:

The Department of Botany organized a plantation activity for the students of the Telangana Tribal Welfare Residential Degree College for women, siricilla. The aim was to instill a sense of environmental responsibility, promote greenery, and educate students about the significance of trees in our ecosystem.

Objective:

The primary objective of the activity was to engage our students in hands-on environmental conservation efforts through tree plantation.

Participants:

The event saw enthusiastic participation from the students, faculty members, and volunteers from the Department of Botany.

Activities Preparation:

Prior to the event, suitable locations for plantation were identified within the college premises. Necessary arrangements including procuring saplings, tools, and other resources were made.

Awareness Session:

The activity commenced with an informative session on the importance of trees in maintaining ecological balance, mitigating climate change, and enhancing biodiversity. Students were briefed about the significance of their contribution to environmental conservation.

Plantation:

Following the awareness session, students actively participated in the plantation drive. They were divided into groups and assigned designated areas for planting saplings. Under the guidance of faculty members, students learned proper planting techniques ensuring the saplings' healthy growth.

Species Diversity:

Care was taken to ensure diversity in the species of trees planted, considering local ecological conditions and long-term sustainability. This approach not only enriches the biodiversity of the campus but also provides varied ecological benefits.

Maintenance:

Students were educated about the importance of nurturing the planted saplings through regular watering, mulching, and protection from pests. They were encouraged to take ownership of the trees they planted and monitor their growth over time.

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Conclusion:

The plantation activity organized by the Department of Botany, was a resounding success. It not only contributed to the greening of the college campus but also empowered students with knowledge and skills for environmental stewardship. Such initiatives play a crucial role in fostering a culture of sustainability and conservation among future generations.

Future Directions:

To sustain the momentum of environmental awareness and action, the Department of Botany plans to organize regular follow-up sessions, conduct tree care workshops, and integrate environmental education into the curriculum. Moreover, collaborative efforts with local communities and government agencies will be explored to extend the scope of plantation drives beyond the college premises for broader environmental impact.

Feed back :

in this session students planted many trees ,and learnt about importance of trees plantation.

World Aids Day

Date: 1/12/2021

Introduction:

Degree students initiated a significant step towards raising awareness about HIV/AIDS in rural communities by organizing a rally in TTWRDC[W] RajannaSiricilla this event aimed to educate villagers about the prevention, transmission, and treatment of HIV/AIDS, emphasizing the importance of awareness and eradicating stigma associated with the disease

Objective:

The primary objective of the rally was to spread awareness about HIV/AIDSamong the residents of the rural village.
Additionally, the students aimed to promote acceptance, empathy, and supportfor individuals living with HIV/AIDS within the community.

Event Highlights:

The rally commenced with a brief introduction by the organizing committee, explaining the purpose and significance of the event.

- Students, adorned in red ribbons symbolizing solidarity with people living with HIV/AIDS, led the procession through the village streets, attracting the attention of local residents.
- Banners and placards bearing educational messages about HIV/AIDS prevention, testing, and treatment were prominently displayed throughout the rally.

Community Engagement:

The rally garnered significant participation and support from the local community. Residents of all ages actively joined the procession, demonstrating their commitment to combating the spread of HIV/AIDS and fostering a more inclusive and understanding community.

Impact:

The AIDS awareness rally proved to be a transformative experience for both the students and the villagers. Through education and community engagement, misconceptions surrounding HIV/AIDS were dispelled, and a more supportive environment for individuals affected by the disease was cultivated.

Conclusion:

The AIDS awareness rally organized by degree students served as a testament to thepower of grassroots initiatives in addressing pressing public health issues. By takThe field trip provided degree students with a valuable opportunity to explore and collect roots and shoots of plants, enriching their understanding of plant anatomy, morphology, and ecology. By engaging in hands-on activities and discussions, students gained practical skills and insights that will enhance their academic and professional development in the field of biology

Student seminar

Topic : Special Types of Chromosomes

Date : 27-01-2022

Venu :class room

Introduction:

Chromosomes are thread-like structures composed of DNA and proteins, carrying genetic information in the form of genes. While chromosomes generally follow a typical structure and behavior, certain species possess chromosomes with distinctive features, leading to specialized functions.

Special Types of Chromosome:

Sex Chromosomes:

- Sex chromosomes determine an organism's sex and exhibit sexual dimorphism.
- In humans, the sex chromosomes are designated as X and Y.
- The presence or absence of Y chromosome determines male or female development.

Supernumerary Chromosomes:

- Supernumerary chromosomes are additional chromosomes beyond the typical set found in an organism.
- They may arise from chromosomal rearrangements or errors during cell division.
- Examples include the B chromosomes found in certain plants and animals

B Chromosomes:

- B chromosomes are extra chromosomes present in some individuals of a species.
- They often lack essential genes and do not carry vital functions for the organism's viability.
- However, they may influence various phenotype traits and have implications for population genetics and evolution.

Significance and Applications:

- Understanding special types of chromosomes enhances our knowledge of genetic diversity, evolution, and species differentiation.
- Studies on sex chromosomes contribute to insights into sex determination mechanisms and sex-linked genetic disorders.

Conclusion:

Special types of chromosomes represent fascinating aspects of genetic diversity and complexity across different organisms. By unraveling their structures, functions, and evolutionary significance, researchers gain insights into fundamental biological processes and the mechanisms underlying genetic variation and adaptation.

Feed back :

Department of botany conducted a seminar to a BZC 2nd year 4th semester students they learn t about the special types of chromosomes and their type and growth several and reproduction of the organisms this information learn t from this seminar.

Quiz

Topic : application of tissue culture gene cloning

Date : 15-02-2022

Venue :class room

Introduction:

Tissue culture and gene cloning are two revolutionary techniques in the field of biotechnology that have significantly impacted various sectors, including agriculture, medicine, and industry. This seminar aims to explore the applications of tissue culture and gene cloning, highlighting their significance in research and development.

Tissue Culture:

Tissue culture, also known as micro-propagation, involves the growth of plant cells, tissues, or organs under sterile conditions in a nutrient medium. It allows for the rapid multiplication of plants from a small amount of tissue, bypassing the conventional methods of propagation. Some of the key applications of tissue culture include:

Crop Improvement:

Tissue culture techniques are extensively used in crop improvement programs for the production of disease-free, genetically uniform plants with desirable traits. This has facilitated the development of high-yielding and stress-tolerant varieties.

Conservation of Endangered Species:

Tissue culture plays a crucial role in the conservation of endangered plant species by preserving their genetic diversity and enabling their propagation under controlled conditions.

Photochemical Production:

Plant cell and organ cultures are utilized for the production of valuable secondary metabolites, such as alkaloids, flavonoid s, and pharmaceutical compounds, which have applications in medicine, cosmetics, and food industries.

Horticulture and Ornamental Plants:

Tissue culture techniques are widely employed in the horticulture industry for the mass production of ornamental plants, fruits, and vegetables with specific characteristics, such as color, size, and resistance to environmental stresses.

Gene Cloning:

Gene cloning involves the isolation and replication of specific genes or DNA fragments, which can then be manipulated and transferred into other organisms. This technique has revolutionized various fields, including medicine, agriculture, and biotechnology. Some notable applications of gene cloning are:

Bio-pharmaceutical Production:

Gene cloning is used to produce therapeutic proteins, hormones, and vaccines through the expression of recombination DNA in host organisms, such as bacteria, yeast, and mammalian cells. This has led to the development of novel treatments for various diseases.

Genetic Engineering of Crops:

Gene cloning enables the introduction of desirable traits, such as pest resistance, herbicide tolerance, and enhanced nutritional content, into crop plants, thereby improving their yield, quality, and sustainability.

Gene Therapy:

Gene cloning plays a pivotal role in gene therapy, where defective genes responsible for genetic disorders are replaced or corrected with functional copies, offering potential cures for genetic diseases.

Forensic Analysis:

Gene cloning techniques, such as polymer chain reaction (PCR) and DNA fingerprinting, are utilized in forensic science for the identification of individuals, determination of paternity, and solving criminal cases by analyzing DNA evidence.

Conclusion:

In conclusion, tissue culture and gene cloning are powerful tools with diverse applications in agriculture, medicine, industry, and environmental conservation. Their continued advancements hold great promise for addressing global challenges and improving the quality of life. This seminar provides a comprehensive overview of the principles, techniques, and applications of tissue culture and gene cloning, highlighting their immense potential in shaping the future of biotechnology.
Participates : total no of students are 20 members

1. V.Bindhu
2. V.Sravani
3. T.Bhargavi
4. T.Supriya
5. S.Sravani
6. S.Sunitha
7. P.Soujanaya
8. K.Anusha
9. P.Akhila
10. B.Gouthami
11. G.Naveena
12. L.Mounika
13. M.Sangeetha
14. M.Sandhyarani
15. M.Divya bindhu
16. L.Mounika
17. T.Sravanthi
18. G.Mounika
19. E.Soumya
20. G.Loukitha

Students feed back :

1. Sangeetha

It is improve my knowledge focus on the topic than inference focus on the most important points.

2.Mounika

I like the way the understand the topic in essay way to understand this quiz.

National Science Day

Date: 28-02-2022

Venue : seminar hall

Introduction:

National Science Day is celebrated across India on February 28th to commemorate the discovery of the Raman Effect by Sir C.V. Raman in 1928. In line with the spirit of this day, the Department of Botany in collaboration with all other science department at TTWRDC(w) siricilla organized a series of activities to engage and inspire our students towards scientific inquiry and exploration.

Event Overview:

The National Science Day celebrations were aimed at fostering a deeper understanding of scientific principles, promoting curiosity-driven learning, and encouraging students to appreciate the significance of scientific research in addressing societal challenges.

Activity Highlights:

Poster Presentations:

Students were encouraged to create posters on topics related to botany, including plant physiology, ecology, biodiversity, and biotechnology. The posters showcased the students' understanding of key concepts and their ability to communicate scientific information effectively.

Quiz Competition:

A quiz competition was organized to test the students' knowledge of botany-related trivia, scientific discoveries, and current research trends. The competition encouraged active participation and fostered a spirit of healthy competition among the students.

Conclusion:

The National Science Day celebrations at TTWRDC (W) SIRICILLA, were a resounding success, inspiring students to pursue scientific inquiry with passion and diligence. By providing a platform for learning, exploration, and collaboration, the event contributed to the holistic development of students and reinforced the department's commitment to excellence in botanical education and research.

Feed back :

students know the importance of science day remember the achievements of our great scientists and improve he scientific knowledge.

World forest day

Date :21-03-2022

Venue :seminar hall

Introduction:

World Forest Day, also known as International Day of Forests, is observed on March 21st every year. This day aims to raise awareness about the importance of forests and trees in our lives and to promote actions for their sustainable management and conservation. As students of botany, it's crucial to understand the significance of forests and our responsibility in protecting them.

Importance of Forests:

Forests play a vital role in maintaining ecological balance and sustaining life on Earth. They provide habitat for numerous species, regulate the climate, protect watersheds, and are a source of food, medicine, and livelihoods for millions of people worldwide. Additionally, forests are essential in combating climate change by absorbing carbon dioxide and releasing oxygen through photosynthesis.

Challenges Facing Forests:

Despite their immense value, forests face numerous threats, including deforestation, illegal logging, urbanization, and climate change. These activities result in habitat

loss, biodiversity decline, soil degradation, and contribute to global warming. It's imperative to address these challenges through collective efforts to ensure the long-term survival of forests and the well-being of future generations.

The Role of Botany:

Botany, as the scientific study of plants, plays a crucial role in understanding forest ecosystems and developing strategies for their conservation and restoration. Botanists study the diversity, distribution, ecology, and physiology of forest flora, enabling us to better comprehend their functioning and dynamics. Through research and innovation, botanists contribute to the development of sustainable forest management practices, biodiversity conservation, and reforestation efforts.

Actions for Conservation:

As future botanists, it's essential for us to actively participate in conservation initiatives aimed at protecting forests. This can involve advocating for policies that promote sustainable forestry practices, engaging in reforestation projects, conducting research on plant species and ecosystems, and educating communities about the importance of forests. By taking concrete actions, we can contribute to safeguarding our planet's green heritage for generations to come.

Conclusion:

World Forest Day serves as a reminder of the invaluable role that forests play in sustaining life on Earth and the urgent need to protect them. As students of botany, we have a responsibility to use our knowledge and skills to advocate for forest conservation and contribute to efforts aimed at preserving these vital ecosystems. Together, let's celebrate and protect our forests for a greener and healthier planet.

Feed back :

students know about the world forest day in this session and they learn t about the forest and its important points ecology suitable and invest in their conversation and care .

World Water Day

Date: 22-03-2022

Venue : seminar hall

Objective:

The Department of botany collaboration with chemistry ,zoolagy,micro biology organized a special activity in commemoration of World Water Day for the students of the TTWRDC degree program. The objective was to raise awareness about the importance of water conservation, sustainable usage, and the vital role of plants in maintaining water ecosystems.

Activities:

Awareness Session:

The event began with an informative session on the significance of World Water Day and its theme for the year. Various aspects related to water conservation, pollution prevention, and the role of plants in water purification were discussed. Interactive presentations, videos, and real-life examples were utilized to engage the students and deepen their understanding.

Plantation Drive:

Following the awareness session, a plantation drive was conducted in collaboration with the students. Native plant species known for their water retention capabilities and contribution to soil moisture conservation were selected. Students actively participated in planting saplings in designated areas within the college campus. This hands-on activity not only reinforced the importance of plants in water conservation but also fostered a sense of responsibility towards environmental stewardship.

Poster Competition:

To encourage creative expression and critical thinking on the subject of water conservation, a poster competition was organized. Students were given the opportunity to showcase their artistic talents and convey powerful messages through visual media. Themes such as water scarcity, pollution prevention, and sustainable water management were emphasized. Winners were selected based on the clarity of message, creativity, and relevance to the theme.

Outcome:

The World Water Day celebration proved to be a resounding success, with active participation from students and faculty alike. Through a combination of informative sessions, hands-on activities, and interactive discussions, students gained a holistic understanding of the importance of water conservation and the pivotal role of plants in sustaining water ecosystems. The event not only raised awareness but also inspired students to take concrete actions towards preserving this precious resource for future generations.

Conclusion:

In conclusion, the World Water Day activity served as a platform for promoting environmental consciousness, fostering community engagement, and empowering students to become agents of positive change in their respective communities. The Department of Botany remains committed to organizing such initiatives in the future, with the aim of instilling a deep-rooted appreciation for nature and promoting sustainable living practices among the youth.

Feed back :

students know about the importance of water how to preserve the water and students prepared posters.

Academic year :2020-2021

WORLD ENVIRONMENT DAY

DATE: 05-06-2020

The program was conducted via Zoom, providing an accessible platform for students to join from various locations.

Introduction:

World Environment Day is celebrated annually on June 5th to raise awareness and encourage action for the protection of our environment. However, amidst the challenges posed by the COVID-19 pandemic, traditional in-person events have been replaced with virtual initiatives. This report aims to outline the outcomes and impact of an online awareness program conducted on World Environment Day during the COVID-19 pandemic.

Objective:

The primary objective of the online awareness program was to engage individuals and communities worldwide in discussions, activities, and initiatives focused on environmental conservation and sustainability, despite the limitations imposed by the pandemic.

Program Overview:

The online awareness program consisted of a series of virtual events, including webinars, panel discussions, workshops, social media campaigns, and interactive activities. These activities were designed to educate, inspire, and empower participants to take positive environmental actions from the safety of their homes.

Key Highlights:

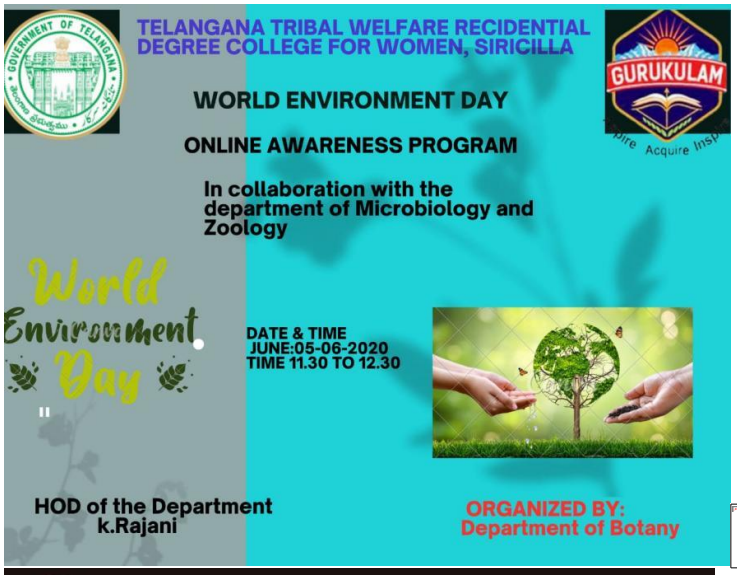
Webinars:

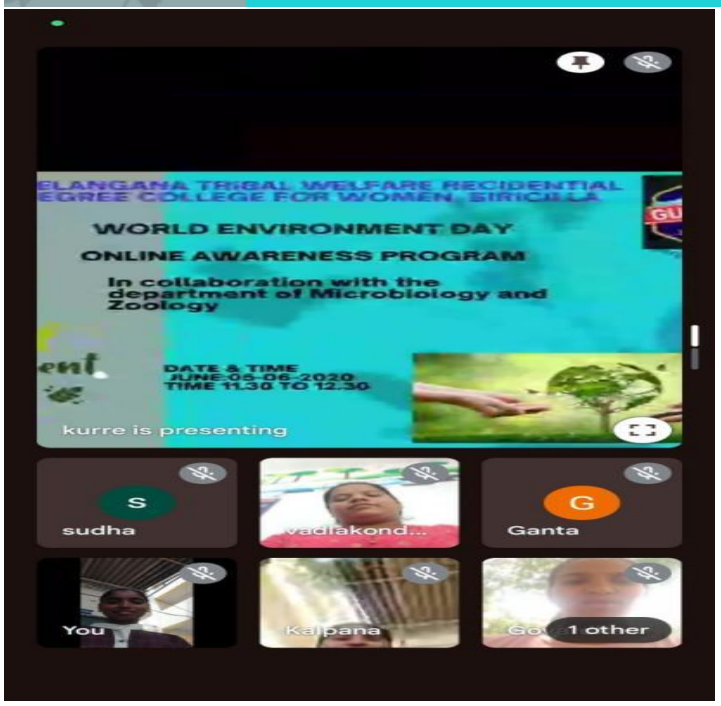
Expert-led webinars were conducted on various environmental topics, such as climate change, biodiversity conservation, sustainable living, and waste management. These webinars provided valuable insights and practical tips for individuals to adopt eco-friendly practices in their daily lives.

Panel Discussions:

Engaging panel discussions brought together thought leaders, policymakers, environmental activists, and influencers to discuss pressing environmental issues and

explore innovative solutions. Topics ranged from the role of technology in environmental conservation to the importance of environmental education





Workshops:

Interactive workshops were organized to equip participants with practical skills and knowledge to address environmental challenges. Workshops on organic gardening, recycling and upcycling, energy conservation, and sustainable fashion attracted a diverse audience eager to learn and implement sustainable practices.

Impact and Outcomes:

Despite the challenges posed by the COVID-19 pandemic, the online awareness program was a resounding success, reaching millions of people worldwide and generating significant impact. Key outcomes include:

Conclusion:

In conclusion, the online awareness program conducted on World Environment Day amidst the COVID-19 pandemic served as a testament to the resilience and adaptability of environmental initiatives in the face of adversity. By leveraging digital platforms and innovative approaches, the program successfully engaged and empowered individuals worldwide to become champions of environmental sustainability. Moving forward, it is imperative to continue harnessing technology and collective action to protect and preserve our planet for future generations.

WORLD OZONE DAY

Date:16-09-2020

The program was conducted via Zoom, providing an accessible platform for students to join from various locations.

Introduction:

World Ozone Day, celebrated annually on September 16th, commemorates the signing of the Montreal Protocol on Substances that Deplete the Ozone Layer. In the wake of the COVID-19 pandemic, educational institutions have adapted by moving their programs online. This report details the online World Ozone Day program organized for degree students during the pandemic, highlighting its structure, content, and impact.

Objectives:

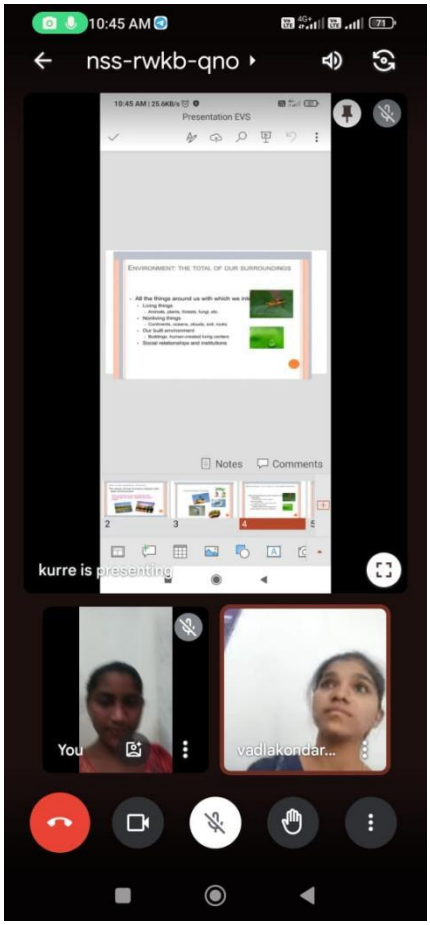
The primary objectives of the World Ozone Day online program were:
1. To educate students about the significance of the ozone layer and the impact of its depletion.
2. To promote awareness of the Montreal Protocol and global efforts to protect the ozone layer.
3. To engage students in interactive and informative activities despite the limitations imposed by the COVID-19 pandemic.

Educational Workshops:

- Session on the Science of the Ozone Layer
- Impact of Ozone Depletion and Climate Change
- Overview of the Montreal Protocol

Content Highlights:


TELANGANA TRIBAL WELFARE RECIDENTIAL DEGREE COLLEGE FOR WOMEN, SIRICILLA
GURUKULAM
WORLD OZONE DAY
ONLINE AWARENESS PROGRAM
In collaboration with the department of Botany and Microbiology
DATE & TIME
JUNE:12-05-2020
TIME 11.30 TO 12.30
HOD of the Department
k.Rajani
ORGANIZED BY:
Department of ZOOLOGY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Science of the Ozone Layer:

- Explanation of the ozone layer's role in protecting Earth from harmful ultraviolet (UV) radiation.
- Causes and effects of ozone layer depletion, focusing on human activities that release ozone-depleting substances (ODS).

Impact of Ozone Depletion:

- Health impacts: Increase in skin cancers, cataracts, and other UV-induced health issues.
- Environmental impacts: Effects on marine ecosystems, agriculture, and wildlife.

Montreal Protocol:

- History and success of the Montreal Protocol in reducing ODS emissions.
- Current challenges and future directions for global ozone layer protection efforts.

Impact and Feedback

The online program successfully engaged over 300 degree students from various disciplines. Feedback collected through surveys indicated high levels of satisfaction with the program's content and delivery. Students appreciated the interactive elements, which made the learning experience more engaging despite the virtual format. Many expressed a heightened awareness of ozone layer issues and a commitment to environmentally friendly practices.

Challenges and Recommendations:

Challenges:

- Technical issues such as internet connectivity problems.
- Limited hands-on activities due to the online format.
- Difficulty in ensuring active participation from all attendees.

Conclusion:

The World Ozone Day online program was a significant step towards maintaining educational continuity during the COVID-19 pandemic. By leveraging virtual platforms, the program successfully educated and engaged students on critical environmental issues, promoting a culture of awareness and responsibility towards ozone layer protection. This experience also highlighted the potential for online education in enhancing environmental literacy among students.

ACADEMIC YEAR :2019-2020

Haritha Haram

Date :03-06-2019

Venue : seminar hall

Introduction:

The Department of Botany organized Haritha Harm event aimed at promoting environmental awareness and encouraging tree plantation among the students of the Telangana Tribal Welfare Residential Degree College . The event was held on 03-06-2019

Objectives:

1. To raise awareness about the importance of environmental conservation and tree plantation.
2. To actively involve our students in contributing to green initiatives.
3. To foster a sense of responsibility towards the environment among the student community.
4. To enhance the green cover and biodiversity of the college campus and surrounding areas.

Activities:

Preparatory Phase:

A group comprising faculty members, students, and administrative staff was formed to plan and execute the event.

Event Execution:

Inauguration Ceremony:

The event commenced with an inauguration ceremony attended by dignitaries, faculty, and students.

Tree Plantation Drive:

Students actively participated in planting saplings of various native tree species in designated areas of the college campus and nearby locations.

Environmental Awareness Sessions:

Short sessions were conducted to educate students about the importance of trees, their role in mitigating climate change, and the significance of maintaining ecological balance.

Outcomes:

Active Participation:

The event witnessed enthusiastic participation from our students, faculty, and staff members.

Tree Plantation:

A significant number of saplings were planted, contributing to the enhancement of the green cover in the college campus and surrounding areas.

Environmental Awareness:

Students gained a better understanding of environmental issues and their role in sustainable development through the awareness sessions and workshops.

Conclusion:

The Haritha Haram initiative organized by the Department of Botany for our students was a resounding success, fostering environmental awareness, community engagement, and active participation in green initiatives. By nurturing a culture of environmental responsibility, the event has laid the foundation for sustainable development and stewardship of natural resources among the student community.

Feed back:

Students came to know about the haritha haram very well and they participated with interest

World Fist Aid Day

Date:- 19|09/2019

Objectives:

This raises awareness and encourages individuals and communities to equipthemselves with life -saving skills.
The main objective of First Aid is not to cure but to ensure safety until the patientor affected person accesses specialized treatment.

It is the initial assistance or care of a suddenly sick or injured person.

About the Programme :-

World First Aid Day is celebrated on 19th of September.On this day many Health Superintends and staff nurse from local Physical Health Care centre came to college to educate students. Students gather at seminar hall gather to work together to educate people about the importance of having basic first aid skills and their rule during emergencies.
First Aid refers to medical attention that is usually administrated immediately after the injury occurs and at the location where it occurred.It after consists of a one-time,short-time treatment and requires little technology or training toadminister.

World Ozone Day

Date: 16-9-2019

Venue : seminar hall

Introduction:

The Department botany in collaboration with organized a special event to commemorate World Ozone Day at TTWRDC(w) siricilla. World Ozone Day, observed annually on September 16th, is a significant occasion to raise awareness about the importance of protecting the ozone layer and mitigating ozone depletion.

Activities Conducted:

Awareness Seminar:

The event commenced with an awareness seminar conducted by faculty members of the life science Department. The seminar focused on explaining the importance of the ozone layer in protecting life on Earth, the causes and effects of ozone depletion, and the role of individuals and communities in ozone layer conservation. Interactive discussions were encouraged to ensure active participation from the students.

Poster Exhibition:

To foster creativity and enhance understanding, a poster exhibition was organized where students showcased their artwork and informative posters related to World Ozone Day. Topics ranged from the ozone layer's role in protecting life to sustainable practices for ozone layer conservation. The exhibition provided an opportunity for students to express their perspectives and engage in peer-to-peer learning.

Conclusion:

The World Ozone Day event was a resounding success, providing our students with valuable insights into the significance of ozone layer protection and environmental conservation. Through seminars, lectures, interactive activities, students were empowered to become informed advocates for sustainable practices and guardians of the Earth's ozone layer. Such initiatives underscore the institution's commitment to fostering environmental stewardship among its students and contributing to a healthier planet for future generations.

Feed back :

Students came to know how ozone layer protect us and its covers the entire plant absorbing harmful alternative -B radiation from the sun

Student seminar

Topic : viral disease symptoms in plants

Date :15-10-2019

Venue :class room

Introduction:

Department of Botany coundected by The seminar on "Viral Disease Symptoms in Plants" provided a comprehensive overview of the symptoms, causes, and management strategies associated with viral infections in plants. Attendees gained valuable insights into the impact of viral diseases on agriculture, the economy, and the environment.

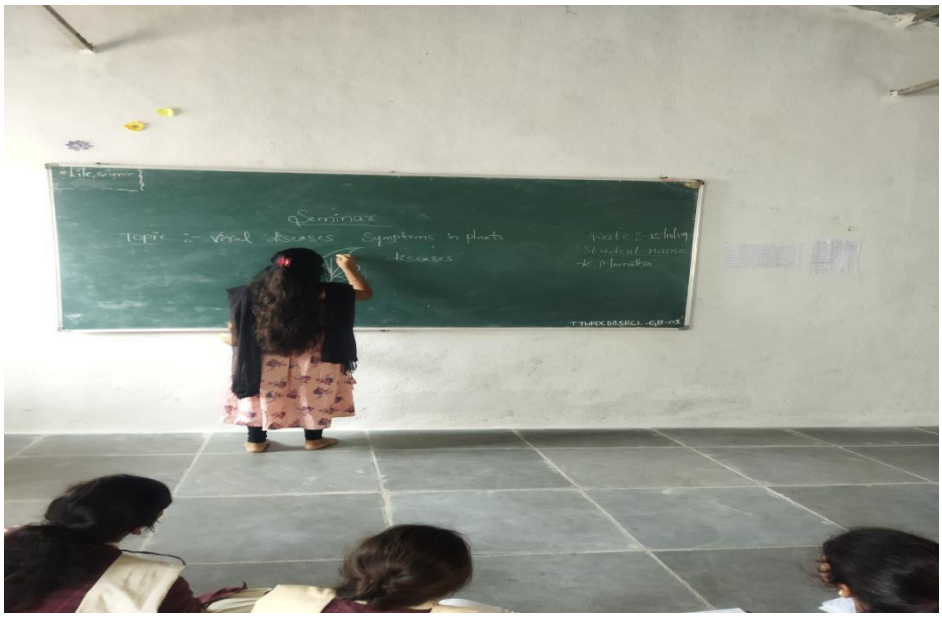
Types of Viral Diseases in Plants:

The seminar began by outlining the various types of viruses that infect plants, including single-stranded RNA viruses, double-stranded RNA viruses, single-stranded DNA viruses, and double-stranded DNA viruses. Each type exhibits distinct symptoms and transmission mechanisms.

Causes and Transmission:

The seminar emphasized the multiple ways in which viral diseases can be transmitted among plants, including through insect vectors, contaminated soil,

infected seeds, and mechanical transmission via agricultural practices such as pruning and grafting. Understanding these transmission mechanisms is crucial for implementing effective disease management strategies.



Economic and Environmental Impact:

- The economic consequences of viral diseases in plants were highlighted, with emphasis on reduced crop yields, decreased quality of produce, and increased production costs associated with disease management practices such as pesticide application. Furthermore, the environmental impact of viral diseases was discussed, including the potential for viral outbreaks to disrupt ecosystems and biodiversity.

Conclusion:

The seminar on "Viral Disease Symptoms in Plants" provided attendees with a comprehensive understanding of the symptoms, causes, and management strategies associated with viral infections in plants. By enhancing awareness of these issues, the seminar aims to empower agricultural stakeholders to effectively mitigate the impact of viral diseases on crop production and sustainability.

Overall, the seminar was highly informative and served as a valuable platform for knowledge exchange and collaboration in the field of plant pathology and agricultural science

Feed back :

Department of botany conducted a seminar to students we can improve the knowledge and we can interest to the listen the seminar to very essay way to learn and understand the topic very well

Student seminar

Topic : Sexual Reproduction in Oedogonium

Date : 19-11-2019

Venue :class room

Introduction:

Department of botany conducted The seminar on sexual reproduction in Oedogonium, conducted by department of botany delved into the intricate mechanisms of reproductive processes in this green alga. Oedogonium is a genus of filamentous green algae belonging to the class Chlorophyll, commonly found in freshwater environments worldwide.

Seminar Content:

Overview of Oedogonium:

Brief introduction to the genus Oedogonium, including its habitat, morphology, and ecological significance.

Discussion on the importance of studying Oedogonium in understanding the evolution and diversity of reproductive strategies in algae.

Life Cycle of Oedogonium:

Detailed explanation of the life cycle of Oedogonium, emphasizing the alternation of generations between haploid gametophytic and diploid sporophytic phases.

Diagrammatic representation of the life cycle, highlighting key stages such as game to-genesis, fertilization, and spore-genesis.

Gamete-genesis in Oedogonium:

Examination of gametangial development in Oedogonium, focusing on the formation of male and female gametangia.
Discussion on the differentiation of gametes within gametangia and the factors influencing gamete-genesis.

Sexual Reproduction:

- Elucidation of the process of sexual reproduction in Oedogonium, including gamete release, gamete recognition, and fertilization.
- Comparison of oogamous reproduction in Oedogonium with other algae and higher plants, highlighting similarities and differences.

Spore-genesis and Spore Dispersal:

Exploration of sporadically development in Oedogonium, leading to the formation of haploid spores.
Analysis of mechanisms for spore dispersal and colonization of new habitats, contributing to the ecological success of Oedogonium.

Ecological and Economic Importance:

Assessment of the ecological roles played by Oedogonium in freshwater ecosystems, such as oxygen production, nutrient cycling, and habitat provision.
Consideration of the economic potential of Oedogonium in bio remediation, bio fuel production, and pharmaceutical applications.

Conclusion:

The seminar provided a comprehensive overview of sexual reproduction in Oedogonium, highlighting its significance in the context of algal biology and ecological studies. By elucidating the intricate mechanisms underlying gamete-genesis, fertilization, and spoor-genesis, the seminar enhanced our understanding of reproductive strategies in green algae and their adaptation to diverse environments.

Feed back :

Department of botany conducted a seminar to students the BZC 1st year students. They can learn t about the sexual reproduction in oedoganium their mode of sexual reproduction,classification structural and life cycle of the oedognium. This information is learn t in this seminar

Student seminar

Topic : Fertilization in Albugo

Date: 29-01-2020

Venue: class room

Organizer: Department of botany

Attendees: BZC 1st year students

Introduction:

The seminar on "Fertilization in Albugo" aimed to delve into the fascinating realm of fertilization processes in the Albugo genus, providing a platform for degree students to enhance their understanding of this intricate biological phenomenon. With a focus on both theoretical knowledge and practical applications, the seminar aimed to enrich participants' learning experiences and foster scientific inquiry.

Seminar Highlights:

Overview of Albugo Genus:

The seminar commenced with an insightful overview of the Albugo genus, highlighting its taxonomic classification, ecological significance, and economic implications. Attendees gained a comprehensive understanding of the genus's characteristics and its relevance in the field of plant pathology.
Participants were introduced to the intricate fertilization mechanisms specific to Albugo species. Through elucidating presentations and interactive discussions, students explored the processes of gamete recognition, fusion, and subsequent zygote formation in Albugo, elucidating the unique adaptations and evolutionary aspects involved.

Role of Molecular Biology Techniques:

- The seminar emphasized the pivotal role of molecular biology techniques in unraveling the complexities of fertilization in Albugo. Students were acquainted with cutting-edge methodologies such as genome sequencing, gene expression analysis, and CRISPR-Cas9 technology, enabling them to appreciate the interdisciplinary nature of contemporary research in this field.

Interactive Workshops and Demonstrations:

- Interactive workshops and demonstrations offered hands-on learning opportunities for students to reinforce their understanding of key concepts. From microscopy sessions elucidating gamete structure to bio informatics workshops analyzing genomics data, participants actively engaged in practical exercises tailored to enhance their comprehension and technical skills.

Future Directions and Collaborative Opportunities:

- The seminar concluded with a forward-looking discussion on future directions in Albugo fertilization research and collaborative opportunities for aspiring scientists. Attendees were encouraged to pursue further studies and contribute to the advancement of knowledge in this field, fostering a spirit of scientific curiosity and innovation.

Conclusion:

The student seminar on fertilization in Albugo provided a stimulating platform for degree students to deepen their understanding of this intriguing biological process. Through a blend of theoretical insights, practical exercises, and interactive discussions, participants gained valuable knowledge and skills essential for their academic and professional growth. The seminar not only enriched participants' understanding of Albugo fertilization but also inspired them to embark on their scientific journeys with enthusiasm and determination.

Feed back :

department of botany conducted a seminar to BZC 1st year students.they learn t about the fertilization in albugo and their family species and ecology and mode of reproduction and its obligate inter inter-cellular spaces this information learn t in this seminar.

FIELD TRIP

Topic : : Medicinal Plant Collection

Date : 8-02-2020

Location: Thangallapalli

Participants:

The participants life science students along with faculty members

Introduction:

The field trip for medicinal plant collection was organized for degree students pursuing studies in botanical sciences. The objective was to provide practical exposure to students regarding the identification and collection of medicinal plants in their natural habitat.

Activities:

Introduction to Medicinal Plants:The day began with a brief lecture on the importance of medicinal plants, their significance in traditional medicine, and their role in modern pharmaceuticals.

Field Identification:

Students were divided into groups and assigned specific areas within the location. They were instructed on how to identify various medicinal plants based on their morphology, habitat, and other distinguishing features.

Collection Techniques:

Proper techniques for collecting medicinal plants without harming the environment were demonstrated. Emphasis was placed on ethical harvesting practices and the importance of sustainable plant collection.

Documentation:

Each group was tasked with documenting the plants they encountered, including their scientific and common names, medicinal properties, and any traditional uses.

Field Notes and Sketches:

Students were encouraged to maintain detailed field notes and sketches of the plants they observed. This exercise helped reinforce their understanding of plant morphology and identification

Conclusion:

The field trip provided students with invaluable hands-on experience in the identification and collection of medicinal plants. It enhanced their understanding of plant biodiversity, conservation, and the importance of medicinal plants in healthcare. Additionally, the trip fostered teamwork, critical thinking, and appreciation for nature among the students.

National Science Day

Date: 28-02-2020

Venue : seminar hall

Introduction:

The Department of Botany organized a special event commemorating National Science Day for the students of Telangana Tribal Welfare Residential Degree College. National Science Day is celebrated in India on February 28th each year to mark the discovery of the Raman Effect by Indian physicist Sir C.V. Raman in 1928. This day aims to promote scientific temper and encourage students to pursue careers in science.

Objective:

The primary objective of the event was to create awareness among TTWRDC degree students about the significance of science in our daily lives, particularly in the field of botany. Additionally, the event aimed to inspire students to explore and appreciate the wonders of the natural world through various interactive activities and presentations.

Activities:

Poster Presentation: Students were encouraged to prepare posters on various themes related to botany, such as plant diversity, ecological conservation, medicinal plants, and agricultural innovations. The posters were displayed in the venue, allowing participants to learn from each other's research and creative presentations.

Quiz Competition:

An engaging quiz competition on botany-related topics was conducted to test the students' knowledge and promote active participation. The quiz included questions on plant anatomy, taxonomy, ecology, and current trends in botany research. Prizes were awarded to the winners to acknowledge their achievements and encourage healthy competition.

Outcome:

The National Science Day event organized by the Department of Botany received enthusiastic participation from TTWRDC degree students. The interactive sessions, lectures, and hands-on activities helped to foster a greater interest in botany among the students. Participants gained valuable insights into the diverse aspects of botany and its relevance in addressing global challenges such as climate change and food security. The event successfully achieved its objective of promoting scientific awareness and inspiring students to explore the fascinating world of plants.

Conclusion:

The Department of Botany remains committed to organizing such educational initiatives to foster scientific curiosity and nurture the next generation of botanists and environmental stewards. By engaging students in meaningful learning experiences, we aim to instill a lifelong passion for science and contribute to the advancement of botanical knowledge and conservation efforts.

Feed back :

students can understanding the education changes in our day to day into good tomorrow
Better education equals to a better nation
The capacity to learn is a gift ;the ability to learn is a skill the willing to learn is a choice

Student seminar

Topic : "Life Cycle of Cerocospora"

Date: 13-03-2020

Venue: class room

Organizers: Department of botany

Introduction:

The seminar on the "Life Cycle of Cerocospora" was held at [Insert Venue] and was organized by the [Insert Organizers]. The seminar aimed to delve into the intricacies of the life cycle of Cerocospora, a genus of fungi known for its significance in plant pathology. The presenters were students from TTWRDC Degree College who meticulously explored various aspects of Cerocospora life cycle and its implications.

Seminar Overview:

The seminar commenced with an introduction to Cerocospora, providing an overview of its taxonomic classification, ecological significance, and its role as a plant pathogen. The presenters elucidated on the importance of understanding the life cycle of Cerocospora for effective disease management strategies in agriculture and horticulture.

Key Points Discussed:

Morphological Features: The presenters highlighted the morphological characteristics of Cerocospora, emphasizing its microscopic structures such as draconian, conidiophores, and hyphen. Visual aids including micro graphs were used to illustrate these features.

Reproduction:

A detailed explanation of Cerocospora reproductive mechanisms was provided, including both sexual and asexual reproduction. The presenters discussed the conditions favoring each mode of reproduction and its implications for disease spread.

Disease Cycle:

The life cycle of Cerocospora within the context of plant diseases was explored. Emphasis was placed on the sequential events starting from spore germination, infection, symptom development, and subsequent dispersal of spores.

Host Specificity:

The presenters discussed the host range of Cerocospora and its implications for disease management. They highlighted the importance of understanding host specificity in designing effective control measures.

Environmental Factors:

The influence of environmental factors such as temperature, humidity, and host susceptibility on Cerocospora life cycle was analyzed. The presenters discussed how variations in environmental conditions affect disease development and severity.

Conclusion:

The seminar provided valuable insights into the life cycle of Cerocospora, enriching the understanding of its biology and its implications for plant pathology. The comprehensive exploration of morphological features, reproductive strategies, disease cycle, host specificity, and environmental factors underscored the complexity of Cerocospora interactions with its host plants. The seminar concluded with a discussion on future research directions aimed at enhancing disease management strategies and mitigating the impact of Cerocospora on agricultural productivity.

Overall, the seminar was well-received by the audience, and the presenters from TTWRDC Degree College demonstrated commendable knowledge and enthusiasm in unraveling the intricacies of Cerocospora life cycle.

Feed back :

Department of botany conducted a seminar to students BZC 1st year students. they learn t about the life cycle of Cerocospora it explain about to the their splashing water mode life history to this information is learn t from the this seminar.

Student seminar

Topic : Bacteria Reproduction

Date: 8-09-2020

Venue: class room

Introduction:

The seminar on "Bacteria Reproduction" held at TTWRDC Degree College aimed to delve into the fascinating world of bacterial reproduction, exploring the mechanisms and significance of this fundamental biological process. Through this seminar, attendees gained insights into the diverse reproductive strategies employed by bacteria and their implications in various fields, including medicine, agriculture, and biotechnology.

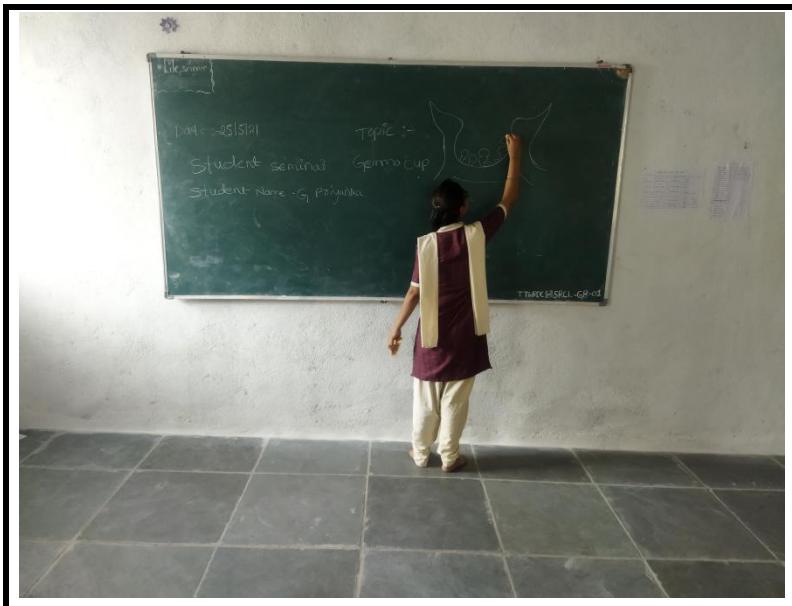
Key Points Covered:

Overview of Bacterial Reproduction:

- Bacteria reproduce primarily through a process called binary fission, wherein a single bacterium divides into two identical daughter cells.
- This rapid reproduction enables bacteria to colonize diverse environments and adapt to changing conditions.

Regulation of Bacterial Growth:

- Bacterial growth is regulated by environmental factors such as nutrient availability, temperature, pH, and osmotic pressure.
- Understanding these regulatory mechanisms is crucial for controlling bacterial populations and managing microbial infections.



Types of Bacterial Reproduction:

- Apart from binary fission, bacteria exhibit various reproductive strategies, including budding, fragmentation, and sporulation.
- Each method of reproduction offers distinct advantages in different ecological niches.

Applications in Biotechnology:

- Bacterial reproduction is harnessed in biotechnology for the production of various products, including enzymes, antibiotics, and recombination proteins.
- Techniques such as bacterial fermentation and genetic engineering exploit bacterial reproductive processes for industrial applications.

Conclusion:

The seminar on Bacteria Reproduction provided a comprehensive understanding of the mechanisms and significance of bacterial reproduction. Attendees gained insights into the diverse reproductive strategies employed by bacteria and their implications in various fields. The knowledge garnered from this seminar will undoubtedly contribute to further research and applications in microbiology, biotechnology, and related disciplines.

Overall, the seminar was a resounding success, fostering intellectual exchange and promoting a deeper appreciation for the intricacies of microbial life.

Feed back :

Department of botany conducted a seminar to BZC 1st year students they learn t about the bacteria reproduction and methods which are included in the bacteria reproduction and binary fission included the vegetative method this information is learn t in this seminar.

WORLD HEALTH DAY

DATE: 12-05-2020

Introduction

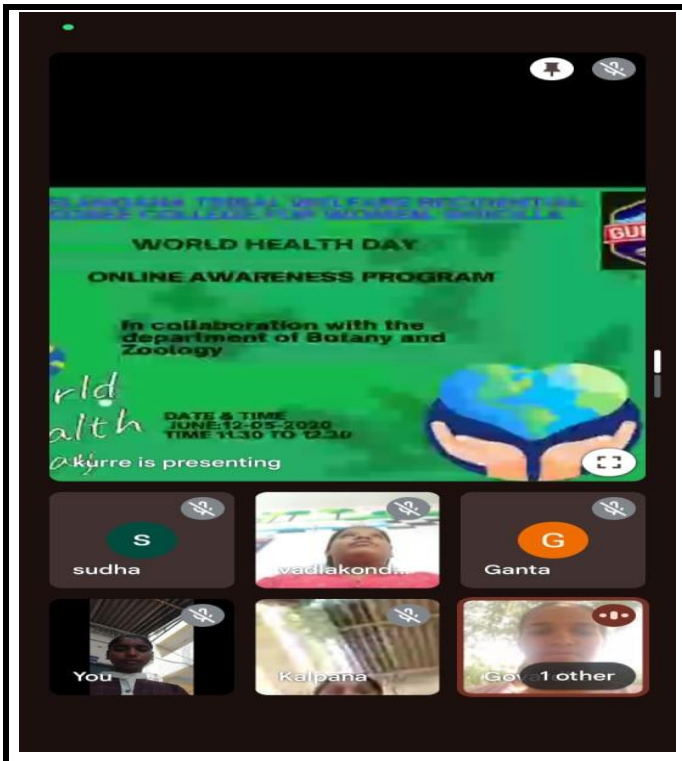
World Health Day, celebrated annually on April 12th, aims to raise awareness about global health issues and promote healthy living. This year, an online awareness program was conducted for degree students to educate them on critical health topics, encourage proactive health management, and inspire participation in health-promoting activities.

Objectives:

The main objectives of the World Health Day Online Awareness Program were:
1. To increase awareness about current global health challenges.
2. To educate students on preventive health measures and healthy lifestyle choices.
3. To promote mental health and well-being.
4. To encourage active participation in health-related activities and discussions.

Program Overview

The program was conducted via Zoom, providing an accessible platform for students to join from various locations.



Sessions and Activities:

Panel Discussion:

Current Global Health Challenges

Panelists: Experts from various health sectors discussed pressing global health issues, including pandemics, climate change, and health equity.

Mental Health and Well-being Session

Healthy Lifestyle Challenge

Activity:
Students were encouraged to participate in a week-long healthy lifestyle challenge, tracking their physical activity, diet, and mental well-being.

Outcomes:

Increased Awareness

Students reported a significant increase in their knowledge about global health issues and preventive health measures.

Engagement and Participation

The interactive format of the program led to high levels of student engagement and active participation in discussions and activities.

Positive Feedback

Feedback from participants was overwhelmingly positive, with many expressing appreciation for the opportunity to learn from experts and engage in health-promoting activities.

Health Initiatives

Following the program, several students expressed interest in initiating health-related clubs and activities within their institutions.

Conclusion:

The World Health Day Online Awareness Program successfully achieved its objectives, providing degree students with valuable insights into global health challenges and equipping them with practical knowledge to improve their health and well-being. The high levels of participation and positive feedback highlight the effectiveness of the program in fostering a culture of health awareness and proactive health management among students.