

School of Agriculture Swami Vivekananda University Barrackpore, West Bengal, 700121, India www.swamivivekanandauniversity.com

About School of Agriculture

The 2020-founded School of Agriculture strives for academic and scientific excellence. The school offers bachelor's degree programs in agriculture, agricultural engineering, and master's degree programs in agribusiness management. In accordance with the Indian Council of Agricultural Research's (ICAR) requirements, the school has created dynamic and targeted curricula to produce skilled workers for academics, agro-based industries, and extension-oriented applications.

Hands-on-training Workshops

programmes/

Nurturing the Future of Agriculture: Hands-On Training on Plant Tissue Culture

A hands-on training program on plant tissue culture was organized for the students, focusing on practical skills and applications of this advanced biotechnology technique. The training aimed to provide expertise in micropropagation, production of disease-free plants, and addressing agricultural challenges such as crop improvement and conservation.





The session began with an introduction to the principles and applications of tissue culture, emphasizing its use in rapid plant multiplication, conservation of genetic resources, and production of high-value crops. The students were trained in aseptic handling techniques, media preparation, and the use of essential laboratory equipment such as autoclaves and laminar airflow cabinets. Applications in commercial crops like banana, Mint, Bringaraj, etc were highlighted, alongside discussions on scalability and economic potential. This training provided students with practical skills and a deeper understanding of tissue culture, preparing them for careers in research, biotechnology, or entrepreneurial ventures in sustainable agriculture.

Student Activity

Soil Testing

Soil testing is the analysis of soil to determine its nutrient content, pH level, organic matter, and

characteristics other essential for plant The B.Sc. growth. Agriculture final year students collected soil samples from different sites in the nearby villages and those samples were tested for various parameters in



the laboratory to determine their pH, EC, soil nutrient availability, and organic carbon content. Soil testing helps to assess the soil fertility, identify deficiencies or toxicities of soil nutrients, and thus guide proper

Research Trial

Hydroponic Production Unit

The recent research conducted by School of Agriculture of Swami Vivekananda University on growing vegetables with hydroponic techniques has been highly successful, showing a sustainable and efficient way of farming. The study, carried out on campus, focused on cultivating vegetables like cauliflower, cabbage, chilli, tomato, okra, spinach, amaranthus, and broccoli in a soil-free, controlled environment.

Researchers tested Dutch type hydroponic methods, while fine-tuning nutrients and environmental conditions to boost plant growth and yield. The results revealed many benefits of hydroponics, including faster plant growth, higher production per area, and significant water savings compared to traditional farming. Since the crops weren't grown in soil, they were safe from soilrelated diseases. The closed water systems reduced waste, making this method environmentally friendly. Additionally, the study showed that hydroponics can enable year-round farming, even in cities or areas with limited resources, by using vertical farming and controlled setups. This research underscores the university's commitment to modern agricultural innovation and provides a model for tackling global food security. By blending technology with farming, it encourages farmers, students, and policymakers to adopt sustainable methods for food production. The trial proves that hydroponics is a practical solution for urban farming and resource-efficient agriculture.

Social Outreach

Plant Protection Advice

During the RAWE field visit, diseases such as rice blast and yellow vein mosaic of okra were identified in farmers' fields. Control measures were recommended to manage these issues effectively. Additionally, symptoms of dead heart damage in rice and fruit fly infestation in cucurbits were observed. Farmers were advised on appropriate control strategies to address these problems. The activity was well-received by the farmers, as the recommendations aimed to improve crop health and productivity.



List of publications

Faculty members of School of Agriculture have published 12 articles of international reputed journals, 2 book chapters and 1 edited book and also in the newspaper under the SVU affiliation.

Committee & Editorial Board

President: Dr. Nandan Gupta
Vice-President: Prof. Subrata Kumar Dey
Convener: Mr. Saurabh Adhikari
Secretary: Mr. Tanmoy Mazumder
Editor-in-Chief: Dr. Tanmoy Sarkar
Editors: Dr. Sudip Senguta, Dr. Avishek Chatterjee,
Dr, Suprabuddha Kundu, Dr. Ria Mukhopadhyay,
Mr. Rakesh Das, Mr. Parijat Bhattacharya, Mr.
Tanmoy Majhi, Mrs. Sayani Bhowmick