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BIO-BUZZ

Department of Biotechnology
Government of India

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Institutional Biotech Hub (IBT Hub) is an initiative of Department of Biotechnology (DBT), Govt. of India with a view to promote research and for development of skilled and trained manpower. The IBT Hub at Bahona College was established in the year 2013. Since then Biotech Hub has been conducting training programs, workshops, seminars and outreach programs through offline and online mode in basic areas of Biotechnology and thus contributing to the growth of trained manpower and biotechnology in the region.

From Principal's Desk

Dr. Prasanna Kr. Dutta
Principal
Bahona College

Institutional Biotech Hub, Bahona College is publishing its first volume of the news bulletin '**Bio-Buzz**'. I hope the Biotech Hub will continue its work in popularizing science & technology among the various stakeholders of the institute and also among other institutes in coming days. I wish all the success in its future endeavors of the Institutional Biotech Hub, Bahona College.

From Coordinator's Desk

Dr. Sangeeta Das
Coordinator
Inst. Biotech Hub, Bahona College

Since its inception, the Hub is working to popularize science & technology among its various stakeholders. This 1st volume of the bulletin is an initiative of the Hub following the need of a bulletin to showcase its various activities. I thank our Principal Sir for his advice and support in fulfilling so. In coming days, I hope the Hub will serve better towards quality research work & development.

PUBLICATIONS


ABSTRACTS: National Seminar

"Recent Trends of Research in Biological Sciences and Allied Branches for the Well-being of People and Nature." Date: 29th March, 2022. Dept. of Botany, J.B. College (Auto), Jorhat, Assam.

Evaluation of phytochemical contents and antibacterial potential of *Nyctanthus arbor-tristis* and *Cinnamomumum tamala* leaves against Enteric Coliform Bacteria isolated from street food in Jorhat District of Assam.

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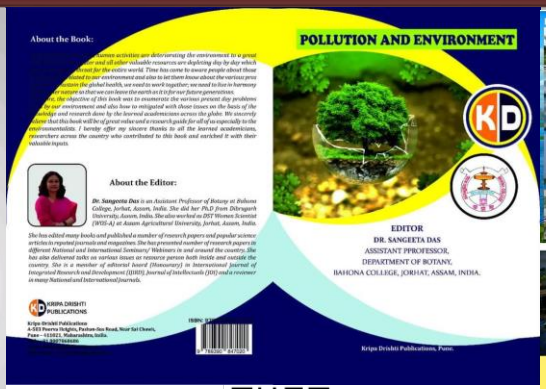
Abstract: Plants are house of bioactive molecules showing diverse medicinal values. Alkaloids, tannins, terpenoids, flavonoids, etc. are certain phytochemicals found in plants. These phytochemicals show antimicrobial effect on various groups of microbes. In this present study, dried leaves from *Nyctanthes arbor-tristis* and *Cinnamomum tamala* plants were used. These two plants are very common plants of Assam and locally known as 'sewali' and 'tez paat' respectively in Assam. *N. arbor-tristis*, is an ornamental plant which is also believed to have medicinal values. *C. tamala* leaves are widely used as a spice and is also used in to prevent and cure common diseases like cough and cold. The antibacterial potential of *N. arbor-tristis* and *C. tamala* was evaluated on an enteric coliform bacteria isolated from 'panipuri' water collected from a street food vendor of Jorhat District of Assam. Extracts of dried leaves prepared in prepared in ethanol, distilled water and chloroform. These extracts were used to detect phytochemical content of the leaves of *N. arbor-tristis* and *C. tamala* and their antibacterial properties on the isolated bacteria. The work is still under progress.

Key Words: Antibacterial properties, Coliform bacteria, Phytochemicals, Plants.



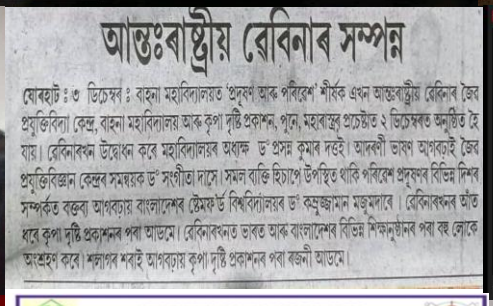
OUTREACH ACTIVITIES

Sl. No.	Name of the Programs	Duration	No. of Participants	Level of participants
1	Outreach Program on Creating awareness on Post COVID-19 effects at Gorumora High School, Jorhat.	1 day, July 31, 2021	46	Teachers, School students
2	Outreach program on Creating awareness on COVID-19 Vaccination at Charigaon Girls' High School, Jorhat.	1 day, July 04, 2021	56	Teachers, School students
3	MoU Signing Ceremony with Kaziranga University, Jorhat, Assam	1 day, September, 27, 2021	15	Teachers

WORKSHOPS CONDUCTED

Sl. No.	Title of the Programs	Duration	No. of Participants	Level of participants
1	National Level Online Art Competition & Webinar to celebrate Women & Girls in Science and Technology	1 day, Feb., 11, 2022	32	School Students
2	Workshop on Basics of Microbiology	3 days, 3rd, 4th &7th Feb., 2022	30	B.Sc. Students
3	Celebration of World Wetlands Day	1 day, Feb., 02 2022	47	Teachers, Students, Others
4	Role of Youth in the COVID Pandemic Time	1 day, Jan., 12, 2022	37	Teachers, B.Sc. Students, Others
5	International Webinar on Pollution and Environment	1 day, Dec., 02, 2021	36	Teachers, Students
6	Workshop on Project Report Writing	1 day, August 15, 2021	30	Teachers, B.Sc. Students
7	Hands on Training Program on Preparation and Presenting before Audience	1 day, July 01, 2021	17	B.Sc. Students
8	National Webinar on "Environment"	1 day, June 05, 2021	1007	Teachers, Research Scholars, Students

PROGRAMS CONDUCTED



Discussion on ecology

JORHAT, June 7: A national webinar on different aspects of environmental protection was organised by the Institutional Biotech-Hub in association with the Students' Grievance Redressal Cell of Bahona College here on Saturday in sync with World Environment Day. The webinar, attended by over 1,000 participants from different parts of India and also from countries like the Philippines, Bangladesh, Saudi Arabia and Norway, was inaugurated by the Principal of the college, Dr Prasanna Kumar Dutta, and hosted by Dr Sangeeta Das, Assistant Professor, Department of Botany. The welcome speech was delivered by Dr Rafique Ahmed, Coordinator of IQAC of the college. – Staff Correspondent

INVITED ARTICLE

Plant Biotechnology and Food Security: A financial juggling Act, where sometimes the food ball gets dropped

Dr. Aamir Raina
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The United Nations Food and Agriculture Organization (FAO) in 2009 emphasized the food security issues and estimated that agricultural production must increase by 70% to meet the food demands of an expected 9.6 billion people in 2050 and 11.5 billion by 2100. As a result of global food insecurity child malnutrition is another challenge, particularly in Africa and Asia. An estimated 149.2 million (nine out of ten) children under the age of five suffered from stunting due to severe acute malnutrition and is expected to worse under the shadow of COVID-19 pandemic. To address the food insecurities, and to achieve the global food security and Sustainable Development Goal 2, intended to ensure a zero hunger and improved nutrition and a better future for all entails main transformations in global food systems. The FAO assert that plant biotechnologies could play a vital role in achieving enough food production. In response to FAO recommendations many countries have adopted modern agricultural biotechnologies and their products such as genetically modified (GM) crops. For instance, Argentina, Australia, Brazil, Canada, and the United States of America have all permitted the production of GM crops. The breeding of improved crops especially with high micro nutrient density is vital that helps to overcome “hidden hunger” in addition to hunger itself. With advent of 'Omic' technologies which includes genomics, transcriptomics, proteomics and metabolomics, our crop breeding strategies has undergone a dynamic transformation during the past two decades. Modern biotechnologies to address food insecurity not only aim at increasing agricultural productivity but also deliver long-term sustainable enhancements in crop yields to keep up with demand as the world’s population grows.

Recognition Received