



**“Innovations in improving Lipid Production:  
Algal Chemical Genetics”**

By

**Dr Nishikant Wase Senior Research Associate,  
University of Nebraska- Lincoln USA.**

Department of Botany, Chemistry and Zoology jointly organized a guest lecture on **“Innovations in improving Lipid Production: Algal Chemical Genetics”** by **Dr. Nishikant V. Wase**, Senior Research Associate, University of Nebraska- Lincoln United States dated 10/08/2018.

The prices of oil are continuously increasing every year due to high demands and limited resources. To reduce the prices of **Diesel** and **petrol**, either population has to be controlled or the quantity of fuel resources must be increased. Dr. Wase delivered a very comprehensive lecture on Lepidomics and Algal Genetics along with various tool and techniques used for it. Dr. Wase discussed his research on enhancement of production of lipids by Cyanophycean Algae using various elicitors under different conditions. Dr. Wase explained his research work on enhancement of production of oil or lipids without using much land and by increasing production through Cyanophycean algae. As algae grow on contaminated water bodies and can autotrophic in nature hence it becomes a cheap source of production of oils and lipids.

Dr. Wase mainly focussed on Chlamydomonas which is a species of microalgae. Dr. Wase gave a brief historical background, use of algae as a potential source of future biofuel. He explained how the experiments on N-starvation showed drastic effect on productivity of lipids. He elaborated on targeted screenings to identify compounds that targets specific gene to induce proteins or gene products. Dr. Wase explained how he identified more than 200 species of algae that induce more lipid synthesis using N-starvation technique. Dr. Wase satisfied queries asked by the students on the topic.

On the same occasion Botanical society was installed under the aegis of Botany Dept. Dr. Nishikant Wase felicitated the office bearer of Botanical society DACN.

Dr. R. S. Bagde, Head, Zoology Department welcomed Dr. N.V. Wase and Prof. S. R. Somkuwar HOD, Botany briefly introduced him. Dr Deepa Panhekar HOD, Chemistry has presented memento to Dr. Wase. Prof. S Somkuwar, proposed vote of thanks. Dr. Archana Meshram conducted the programme. Teaching and non teaching staff members attended the programme.



**Dr. Ambedkar College Deekshabhoomi, Nagpur**  
**Dept. of Botany**



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