



# Integral Institute of Agricultural Science & Technology (IIAST) Integral University, Lucknow

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## Brief Report On

### " Biotechnological Interventions in Food Processing: Current Status and Future Prospects"

An educational, interactive and motivational *one hour session* of 'Guest Lecture' was held on 22<sup>nd</sup> December 2020, through online mode. The event began with a brief introduction by Dr P N Verma of the chief guest Prof. (Dr.) Paramjeet S. Panesar, Dean (Planning and Development), Food Biotechnology Research Lab, Department of Food Engineering and Technology, Sant Longowal Institute of Engineering and Technology, Longowal, Punjab, India. Our guest of honor was welcomed by Dr Saba Siddiqui, Head of Department and spoke about the achievements of Prof. (Dr.) Paramjeet S. Panesar. Our guest speaker is an eminent plant breeder and has vast experience and knowledge in the area of crop improvement, production technology and development of HYVs.

Prof. Panesar, a leading expert in biotechnology, provided a comprehensive overview of the current advancements and future possibilities in food processing. He discussed the application of enzyme technology, genetic modification, fermentation, and biofortification to enhance food quality, shelf life, and nutritional value. Highlighting real-world examples such as lactose-free dairy products and plant-based meat alternatives, he illustrated the transformative potential of biotechnology. Prof. Panesar also addressed the challenges faced by the industry, including regulatory issues, public perception, and the need for sustainable practices. Looking ahead, he explored innovative technologies like synthetic biology, CRISPR, personalized nutrition, and sustainable approaches to reduce food waste and improve food security.

The lecture concluded with a Q&A session, where Prof. Panesar engaged with the audience on topics like GMO safety, ethical concerns, and career opportunities in food biotechnology, providing a well-rounded perspective on the future of the field.

*The students found the session interesting and beneficial.*



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## Glimpse

REC P.S. Panesar is presenting

**BIOTECHNOLOGICAL INTERVENTIONS  
FOOD PROCESSING: CURRENT STATUS  
AND FUTURE PROSPECTS**

**Prof. (Dr.) Parmjit S. Panesar**  
Dean (Planning & Development)

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10:40 AM | Recent Trends in Agriculture for Sustainable Foo...

REC P.S. Panesar is presenting

**BIOTECHNOLOGY: FUSION OF  
BIOLOGY AND TECHNOLOGY**

- The controlled use of biological agents, such as, micro-organisms or cellular components, for beneficial use." (U.S. National Science Foundation)
- The integrated use of biochemistry, microbiology and engineering sciences in order to achieve technological application of the capabilities of micro-organisms, cultured tissues/cells and parts thereof." (European Federation of Biotechnology)

Biology  
Technology  
Biotechnology

10:41 AM | Recent Trends in Agriculture for Sustainable Food...