
Departmental Seminar

Seminar Title	: Return Seminar-Extraction of Leaf Protein by Ball Milling
Speaker	: Ram Prasad Bebartta
Supervisor	: 2910
Venue	: CH-306
Date and Time	: 25 Feb 2025 (16.30)
Abstract	: Leaf protein contains up to 48% soluble proteins but is difficult to extract using conventional methods due to rigid cell wall structure. Therefore, mechanical pretreatment could be a better option to increase the protein yield. Meanwhile, Moringa oleifera leaves are a rich source of protein and contain an adequate amount of amino acid (AA). Hence, moringa leaf flour was subjected to ball milling (BM) for 1, 3, and 5 h and measured the effect of BM on the protein yield, structural and functional attributes. Mechanical pretreatment, especially BM, could effectively reduce the particle size of treated samples. Because of that, extracting valuable compounds from those samples became easier and more cost-effective than other chemical treatments. The present study confirmed that a moderate pretreatment duration was more efficient for protein extraction rather than a longer duration. Most importantly, extracted proteins with BM treated offered better functional properties. Keywords: Leaf proteins, Ball milling, Protein yield, functional properties, structural properties