



Pak-Korea Nutrition Center to Improve Child and Community Nutrition

Work Report Chair-Food Processing (2022-2026)

Team Members



**Dr. Muhammad
Kashif Iqbal Khan
Chair-Food
Processing**



**Dr. Abid Aslam
Maan
Co-Chair**



**Dr. Raheela Rehman
Co-Chair**



**Ms. Sonia
Research
Associate/Master
Trainer**

Smart Indicators

SMART INDICATORS							
Major Project Goals/Target Areas	Quantifiable Indicators	Baseline	Year-Wise Target				Total
			Year 1	Year 2	Year 3	Year 4	
Food Processing	No. of sustainable Technologies developed (<i>e.g.</i> , Microwave, Ultrasonics, Thermal /Non-Thermal, Green Technologies <i>etc.</i>)	1	-	1	2	2	5
	Optimized processes developed	1	2	3	4	4	13
	No. of industrial partnerships developed	-	-	1	1	-	2

Smart Indicators Progress

Sr. No.	Quantifiable Indicators	Year 1	Year 2	Year 3	Year 4
1	No. of sustainable technologies developed (e.g. Microwave, ultrasonic, thermal/non-thermal, green technologies etc.)	-	1	2	2
2	No. of optimized processes	2	3	4	4
3	No. of industrial partnerships	-	1	1	-
Status		Achieved	Achieved	Achieved	Continue

Year 4

Non-Thermal/Green Technology



Milling Processing of Different Spices



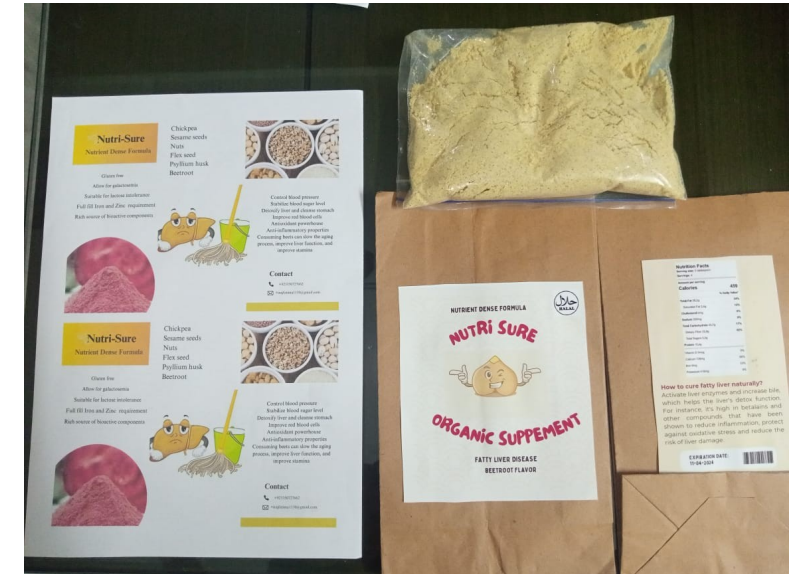
Different Temperatures



Color Difference

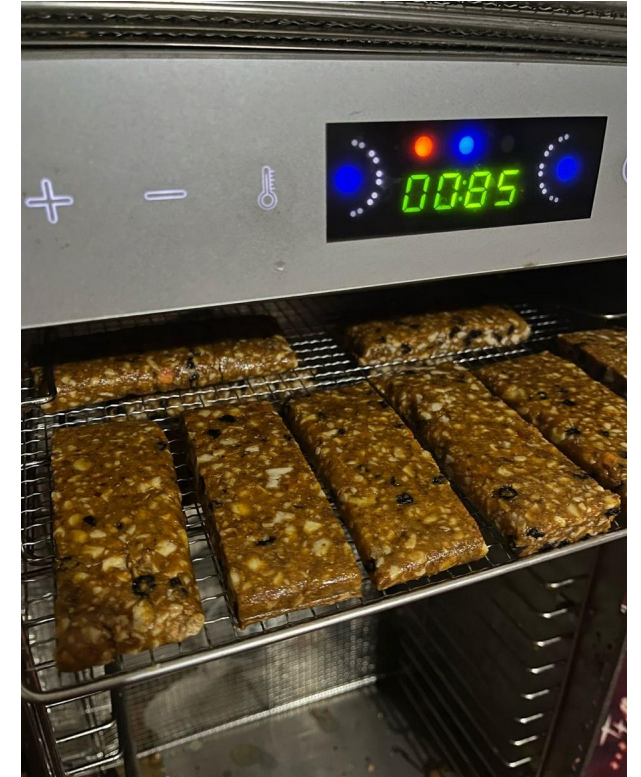
Developing Cryogenic Pin Mill for Nutritional Retention and Shelf Life Extension

Year 3 Process Optimization



Development and Optimization of Protein Based Drink

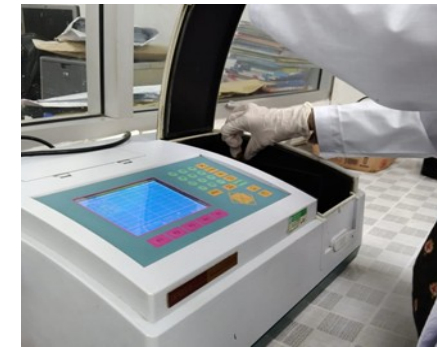
Year 3 Process Optimization



**Development of Apricot based Energy Bars
(Gilgit Partner)**

Year 3

Process Optimization



Optimization of Microwave Processing Parameters for Different Varieties of Quinoa

Year 3 Process Optimization



Process Optimization and Formation of Composite Films

Year 3

Ohmic Based Extraction



Extraction of Seabuck Thorn Oil through Ohmic Heating

Celebrating KOICA's 15th Anniversary: Food Processing Chair's Showcase on 19th June, 2025



Celebrating KOICA's 15th Anniversary: Food Processing Chair's Showcase on 19th June, 2025



Protein Enriched Muffins

Iron and Zinc Bio-fortified Biscuits

Protein Enriched Nutty Cocoa Spread

ZinQuash

Celebrating KOICA's 15th Anniversary: Food Processing Chair's Showcase on 19th June, 2025



Protein Enriched Extrudates



PCOS Tea



Ginger Toffee



Cocofee Gummies

Year 2:

1. Ohmic Heating Technique

➤ Cantaloupe Pulp processed through Ohmic Heating



Raw Material (cantaloupe)



Ohmic Processing



Pasteurized Pulp

➤ Guava and Orange Blend processed through Ohmic Heating



Raw Material (Guava & Orange)



Ohmic Processing



Pasteurized Blended juice

Year 2:

2. Process Optimization

1- Extraction Process



Process optimization for extraction of biopolymers (cellulose, hemicellulose and lignin) from canola residues

3- Shelf-life Extension



Application of biodegradable films for shelf life extension of fresh fruits

2- Process Optimization



Process optimization for preparation of biodegradable thermoplastic films

Year 1 (Process optimization)



Development and Characterization of Corn Snacks Supplemented with Quinoa Seeds and Soybean

Year 1 (Process optimization)



Development and Characterization of Extrudates Supplemented with Citrus Pomace and Rice Bran

MoUs

MoU Signing Ceremony with WIZTEC, Food Solution, Lahore



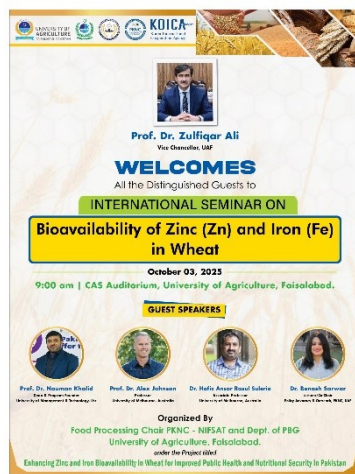
26th August, 2024

Almioiz Applied Research Program (AARP) Industry Academia Collaboration Ceremony at PKNC, on 13th November, 2025



Activities

“International Seminar on Bioavailability of Zinc and Iron in Wheat” at CAS Auditorium UAF, on 3rd October, 2025



“Awareness Walk & Community Session on Malnutrition and Food Loss and Waste” at UAF and Darbar Kot District Tehsil Nankana Sahib, on 29th September, 2025



Activities

Outreach activity about “Awareness of Food Loss & Waste” at Chak # 133 JB Bahadriwala Chiniot, 18th Feb, 2025



“Reimagine, Recreate, Relish: The Ultimate Waste to Taste Product Innovation Challenge, 6th June 2024, Expo Center UAF”



1st positions:

- Ovocal
- Mango peach peel green tea



2nd positions:

- Protein bar
- Green delight curry



3rd positions:

- Seedelicious spread
- Tangy rind delight

One day seminar “From Farm to Fork: Optimizing Nutritional Value through Advanced Food Processing, 27th Feb 2024, Video Conference Room NIFSAT”



One day seminar “Nutritional Security through Sustainable Food Processing, 22nd August 2023, CAS-UAF”

 **UNIVERSITY OF AGRICULTURE
FAISALABAD-PAKISTAN**  **PAK - KOREA
NUTRITION CENTER**

ONE DAY SEMINAR ON
“Nutritional Security Through Sustainable Food Processing”

August 22, 2023 | 10:00 AM | Conference Room CAS

Guest Speaker
Dr. Muhammad Ammar
(Associate Prof, IUB)

Guest Speaker
Mr. Mubeen Arshad Awan
(QAM, Yum Groups)

Guest Speaker
Dr. Muhammad Afzal
(Assistant Prof GCU, FSD)



ORGANIZED BY:
CHAIR-FOOD PROCESSING
PAK - KOREA NUTRITION CENTER
UNIVERSITY OF AGRICULTURE, FAISALABAD



*Thank
you!*