

**A Brief Report on Value Added Course on
“Augmenting the Livestock & Poultry Performance through Nutritional Management”
Course Code : AGV-02-2425
(26th SEP, 2024 – 10th OCT, 2024)
Organized by Department of Agriculture,
Integral Institute of Agricultural Science and Technology (IIAST)
Integral University, Lucknow**

The livestock and poultry industries are vital pillars of the global agricultural sector, playing a key role in ensuring food security, economic stability, and rural development. In 2021, global milk production, consisting of approximately 81% cow milk, 15% buffalo milk, and 4% from goat, sheep, and camel combined, grew by 1.1%, reaching around 884 million tonnes. India leads as the world's largest milk producer, contributing 23% of the total global milk production, with a production of 230.58 million tonnes in 2022-23, marking a 3.83% increase compared to the previous year (2021-22). The daily average milk yield per animal is 8.55 kg for exotic/crossbred cattle and 3.44 kg for indigenous/non-descript cattle. India's organized commercial poultry sector produces nearly 75% of the total meat and egg output, while the unorganized sector accounts for 25%. According to the 20th Livestock Census by the Government of India, the total poultry population stands at 851.81 million (including 317.07 million backyard poultry), marking a 45.8% increase from previous censuses. In 2022-23, India's total egg production is estimated at 138.38 billion, with 118.16 billion from commercial poultry and 20.20 billion from backyard poultry. According to FAOSTAT, 2023 and Economic Survey, 2023 India contributes about 7% of global egg production, 2.42% of global meat production, and 7.56% of global fish production and has the world's largest population of milch animals

In response to this growing interest and demand, the Department of Agriculture took proactive steps by organizing a comprehensive virtual value-added course on "Augmenting the Livestock & Poultry Performance through Nutritional Management." The course, conducted from 26th September, 2024 to 10th October, 2024, spanned over 30 hours and was thoughtfully designed by expert instructors. Augmenting the Livestock & Poultry Performance through Nutritional Management course was designed to equip participants with the knowledge and skills needed to enhance the health, growth, and productivity of livestock and poultry through effective nutritional practices. The initiative reflects the commitment of IIAST to provide knowledge and skills that align with contemporary needs and opportunities in the field of livestock and poultry nutrition. This course was specially designed for all the Undergraduate and Postgraduate students of all departments throughout the university. A total of 235 students were registered and 168 students were passed in the course and were given certificate after completion.

The Value-Added Course was conducted under the guidance of Prof. Saba Siddiqui, Head, Department of Agriculture, Integral University and was coordinated and facilitated by the following faculty members.

1. Dr. Pankaj Kumar Gupta
2. Dr. Zeeshan Ahmed Khan

The Course modules were addressed by the following resource persons:

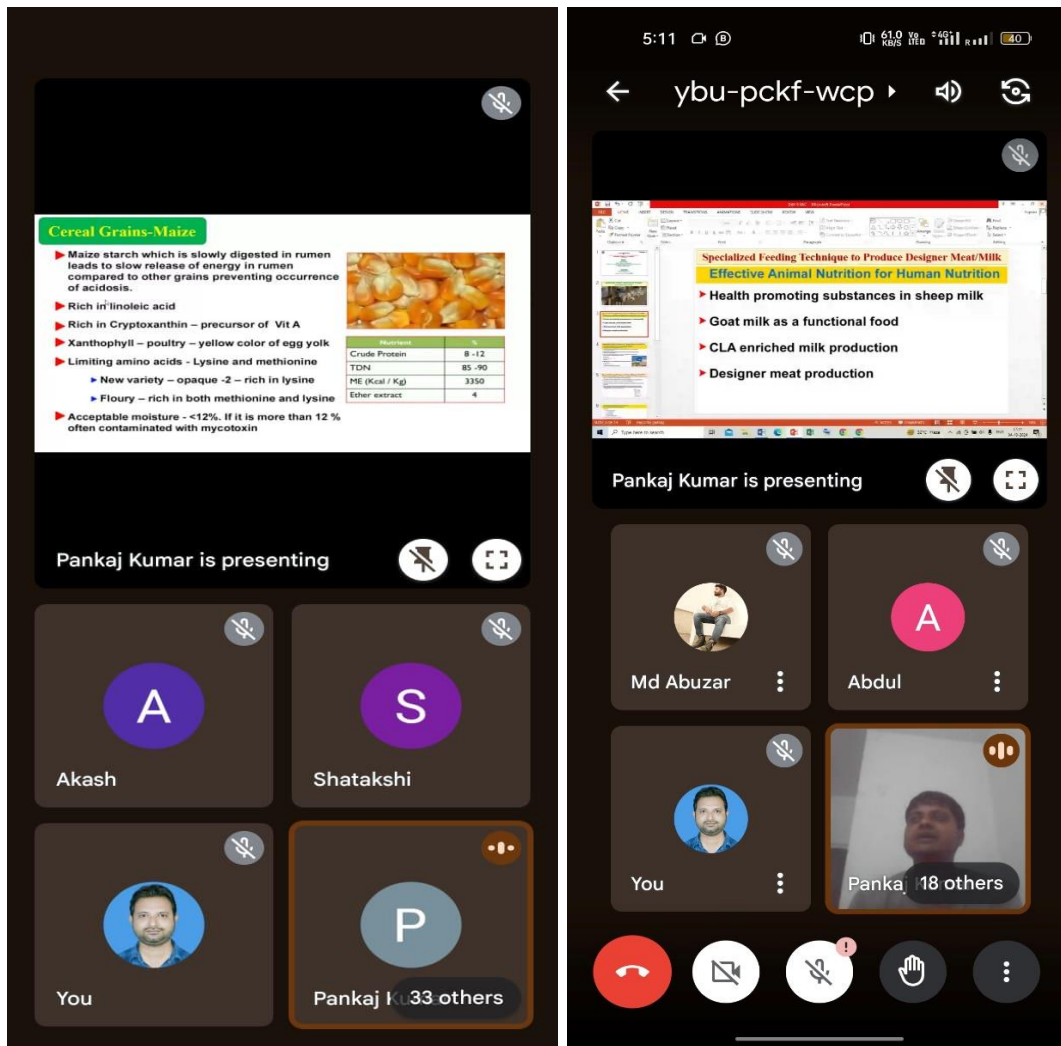
S.No.	Date		Course	Module	Outcome
	From	To	Instructor		
1.	26/09/2024	28/09/2024	Dr. Pankaj Kumar Gupta	Overview of livestock and poultry nutrition. Importance of feed/ fodder and their utilization. Roughage sources green and dry roughage. Energy and protein sources- conventional and unconventional feed sources. Preparation of concentrate feed, hydroponic fodder production and silage making. Quiz Test	Students learned the basic knowledge of nutritional requirements of various livestock and poultry species.
2.	29/09/2024	01/10/2024	Dr. Zeeshan Ahmed Khan	Introduction to cattle feeding, feeding management in dairy cow, management of nutritional diseases, mitigation strategies to reduce methane production. Ration	Students gained proficiency in the formulation of balanced diets tailored to specific stages of livestock and poultry growth and production.

				balancing for sustainable dairy farming. Quiz Test	
3.	02/10/2024	04/10/2024	Dr. Pankaj Kumar Gupta	Integrated pasture management systems for sheep and goats. Ration formulation for sheep and goats. Feeding management of sheep and goats in various life stages. Specialised feeding technique to produce designer meat & milk. Quiz Test	Students gained the knowledge the impact of nutrition on animal health, reproduction, and productivity along with Understand the scope and future demands of designer meat & milk.
4.	05/10/2024	07/10/2024	Dr. Zeeshan Ahmed Khan	Nutrient specifications and ration formulation for chicken. Feeding management of broiler, layer and breeder chicken. Designer eggs and meat through nutrient manipulation. Feeding management of native chicken, ducks, quails and turkeys. Feed additives and supplements for poultry. Quiz Test	Students Understand the significance of the Nutrient specifications and ration formulation for chicken. Besides, Feeding management of different poultry birds like broiler, layer, breeder chicken ducks, quails and turkeys.

5.	08/10/2024	10/10/2024	Dr. Pankaj Kumar Gupta & Dr. Zeeshan Ahmed Khan	Feed Sampling and Processing for Analysis. Nutritional Quality Check of Raw Materials and Finished Feeds. Feed Toxins, their analysis and interpretation. Feed Analysis, current concepts, and developments. Near Infra Red Spectroscopy – A Tool for Quick Feed Analysis. Quiz Test	Students Learned how sampling and proximate composition of different feeds along with Quality Check of Raw Materials and Finished Feeds. Feed Toxins, their analysis and interpretation.
----	------------	------------	--	--	--

All the participants who successfully completed the course were awarded e-certificates on the basis of their quiz test, feedback for every unit, attendance, general feedback, and moreover 50% qualifying criteria for the course. The VAC on Augmenting the Livestock & Poultry Performance through Nutritional Management provided a comprehensive learning platform, equipping attendees with a blend of theoretical understanding and hands-on proficiency, knowledge and skills needed to enhance the health, growth, and productivity of livestock and poultry through effective nutritional practices.

Glimpses of the VAC-



Sample of the certificate



