



College of Veterinary Science and Animal Husbandry Kamdhenu University, Bhuj (Kutch)



DEPARTMENT OF LIVESTOCK PRODUCTS TECHNOLOGY

About Department

The Department of Livestock Products Technology was recently established with the vision of developing it in line with the Minimum Standards of Veterinary Education (MSVE) 2016. Our immediate priority is to meet the minimum standards for undergraduate teaching by establishing the necessary infrastructure and laboratory facilities. Given the rich animal biodiversity of the Kutch region, we will soon begin research to characterize local animal products, with a specific focus on camel milk. Our goal is to conduct research to develop value-added, shelf-stable products from this resource.

Faculty Details

	Name:	Dr. Prakrutik Prafulchandra Bhavsar
	Designation:	Assistant Professor & Head
	Qualification:	Ph. D.
	Experience:	3 Years
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	Mobile No:	8460174378
	Academic profiles	  

Summary of Publications by Faculty

Sr. No.	Detail	Numbers
1.	Research Paper (National Journal)	7
2.	Research Paper (International Journal)	5
3.	Chapters in Books	3
4.	Training Manual / Practical Manual	2
5.	Review articles in scientific journals	3
6.	Popular articles in vernacular languages	5
7.	Informative leaflets / folders for farmers	2

Details of Academic Awards to Faculty

Sr. No.	Details	Organization
1.	Chancellor's Gold Medal – Dr. PP Bhavsar	AAU, Anand
2.	Best Internee Award – Dr. PP Bhavsar	AAU, Anand
3.	Dr. AD Dave Medal – Dr. PP Bhavsar	AAU, Anand
4.	Dr. KN Vyas Medal – Dr. PP Bhavsar	AAU, Anand
5.	Dr. VC Desai Medal – Dr. PP Bhavsar	AAU, Anand
6.	Dr. RK Shukla Medal – Dr. PP Bhavsar	AAU, Anand
7.	SJC Vet College, Anand Medal – Dr. PP Bhavsar	AAU, Anand
8.	Young Scientist Medal – Dr. PP Bhavsar	AAU, Anand

Details of Research Awards

Sr. No.	Name of Award	Faculty Name	Organization
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1.	Young Scientist Award	Dr. PP Bhavsar	IAAVR
2.	Best Article (vernacular language) in <i>Krishigauvidhya</i>	Dr. PP Bhavsar	AAU
3.	Best Paper Presentation Award X 5	Dr. PP Bhavsar	IAAVR & Kamdhenu University
4.	Best Paper Presentation Award	Dr. PP Bhavsar	SVSBT & TANUVAS
5.	Best Paper Presentation Award	Dr. PP Bhavsar	IAVPHS & MAFSU
6.	Best Paper Presentation Award	Dr. PP Bhavsar	VIPM & Kamdhenu University
7.	Best Paper Presentation Award	Dr. PP Bhavsar	AAU & PMC-Karamsad
8.	Best Paper Presentation Award	Dr. PP Bhavsar	IAVPHS & LUVAS

UG Academics

UG Course (As per VCI MSVE 2016 course curriculum)

Sr. No.	Course offered in Third Professional Year	Credits Hours
1.	Livestock Products Technology	2+1

UG Syllabus – Third Professional year

Theory

Unit	Contents
Unit 1	MILK AND MILK PRODUCTS TECHNOLOGY Retrospect and prospects of milk industry in India. Layout of milk processing plant and its management. Composition and nutritive value of milk and factors affecting composition of milk. Physico-chemical properties of milk. Microbiological deterioration of milk and milk products. Collection, chilling, standardization, pasteurization, UHT treatment, homogenization, bacto-fugation. Dried, dehydrated and fermented milk. Introduction to functional milk products. Preparation of cream, butter, paneer or channa, ghee, khoa, lassi, dahi, ice-cream, mozzarella cheese and dairy byproducts. Common defects of milk products and their remedial measures. Packaging, transportation, storage and distribution of milk and milk products. Good manufacturing practices and implementation of HACCP in milk plant. Organic milk products. Food safety standards for milk and milk products. Cleaning and sanitation in milk plant. Dairy effluent management
Unit 2	WOOL SCIENCE Introduction to wool, fur, pelt and specialty fibers with respect to processing industry. Glossary of terms of wool processing. Basic structure and development of wool follicle. Post shearing operations of wool, classification and grading of wool, physical and chemical properties of wool. Impurity of wool, factors influencing the quality of wool. Brief outline of processing of wool.
Unit 3	ABATTOIR PRACTICES AND ANIMAL BYPRODUCTS TECHNOLOGY Layout and management of rural, urban and modern abattoirs. HACCP concepts in abattoir management. FSSAI standards on organization and layout of abattoirs. Animal welfare and pre-slaughter care, handling and transport of meat animals including poultry. Procedures of Ante-mortem and post mortem examination of meat animals. Slaughtering and dressing of meat animals and birds. Emergency and casualty slaughter. Evaluation, grading and fabrication of dressed carcasses including poultry. Abattoir byproducts; rendering, meat, bone, glue, gelatine, fat and byproducts of pharmaceutical value. Skin and hides; methods of flaying, defects, preservation and

	tanning. Treatment of condemned meat and carcasses. Management of effluent emanating from abattoir.
Unit 4	MEAT SCIENCE Prospect of meat industry in India. Structure and composition of muscle (including poultry muscle). Conversion of muscle to meat. Nutritive value of meat. Fraudulent substitution of meat. Preservation of meat and poultry; drying, salting, curing, smoking, chilling, freezing, canning, irradiation and chemicals. Ageing of meat. Modern processing technologies of meat and meat products. Packaging of meat and meat products. Formulation and development of meat; kabab, sausages, meat balls or patties, tandoori chicken, soup, pickles. Fermentation of meat products. Physico-chemical and microbiological quality of meat and their products. Basics of sensory evaluation of meat products. Nutritive value, preservation, packaging of egg and egg products. Laws governing national or international trade in meat and meat products. Organic and genetically modified meat and poultry products.

Practical

Unit	Contents
Unit 1	MILK AND MILK PRODUCTS TECHNOLOGY Sampling of milk. Estimation of fat, solid not fat (SNF) and total solids. Platform tests. Cream separation. Detection of adulteration of milk. Determination of efficiency of pasteurization. Preparation of milk products like ghee, paneer or channa, khoa, ice-cream or kulfi, milk beverages. Visit to modern milk processing and milk products manufacturing plants.
Unit 2	WOOL SCIENCE Wool sampling techniques. Tests for identification of wool; determination of fleece density, fiber diameter, staple length, crimp and modulation percentage. Scouring of clean fleece yield.
Unit 3	ABATTOIR PRACTICES AND ANIMAL BYPRODUCTS TECHNOLOGY Methods of ritual and humane slaughter, flaying and dressing of food animals including poultry. Carcass evaluation. Determination of meat yield, dressing percentage, meat bone ratio and cut up parts. Preparation of different abattoir byproducts. Visit to slaughterhouses meat plants.
Unit 4	MEAT SCIENCE Packaging of meat, poultry and shell eggs and their products. Estimation of deteriorative changes in meat and meat products. Preparation of comminuted and non comminuted meat and poultry products. Evaluation of external and internal egg quality and preservation technique of eggs

Syllabus Distribution for Annual Board Examination:

Examination	PAPERS	UNITS	MAXIMUM MARKS	WEIGHTAGE
Internal Assessment	First	30 %	40	10
	Second	60 %	40	10
	Third	90 %	40	10
Annual Board	THEORY			
	Paper-I	Unit 1-2	100	20
	Paper-II	Unit 3-4	100	20
	PRACTICAL			
	Paper-I	Unit 1-2	60	20
	Paper – II	Unit 3-4	60	20

Departmental Research Area

- Value Addition Strategies in Animal-Derived Foods
- Quality Assessment and Analytical Evaluation of Animal-Derived Foods
- Authentication and Adulteration Detection in Animal-Derived Foods
- Applications of Antioxidants in Animal-Origin Foods
- Shelf-Life Evaluation and Preservation Techniques in Animal-Derived Foods
- Packaging Innovations and Their Impact on Animal-Origin Foods

Contact details

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