

**DEPARTMENT OF ANIMAL SCIENCE  
COLLEGE OF AGRICULTURE,  
NAVSARI AGRICULTURAL UNIVERSITY  
BHARUCH CAMPUS, BHARUCH**

**1. INTRODUCTION:**

The Department of Animal Science was established in 2012 in the College of Agriculture, Bharuch. The department caters to the teaching requirements at undergraduate level as well as at polytechnic level to the students of College of Agriculture as well as to the students of Polytechnic in Agriculture, Bharuch. The constructions of well equipped laboratories are under construction for undergraduate and diploma teaching programs effectively. The department is being lead by Dr. Brishketu Kumar, Assistant Professor-cum-Head. The department is actively involved in teaching, research as well as in extension activities.

**2. OBJECTIVES:**

1. To upgrade the knowledge, skill and different principles in education and research in the field of Animal science.
2. To impart the education at Polytechnic in Agriculture, U.G. and P.G. level.
3. To develop sustainable and economical animal husbandry practices for different species of livestock i.e. cattle, buffalo, sheep, goat and poultry.
4. To produce trained manpower in latest husbandry practices for different livestock species.
5. To advise farmers to feed balanced and quality ration to livestock and poultry and to economize dairy and poultry farming.

**3. MAJOR ACTIVITIES:**

**1. Teaching:**

**(a) Under graduate:**

Total 02 courses with 5 (3+2) credit hours are being taught from first to eight semesters (4<sup>th</sup> and 5<sup>th</sup> semester) B.Sc. (Hons.) in Agriculture.

(b) Post graduate teaching: NIL

(c) Other academic activities: Diploma in Agriculture

Total 02 courses with 5 (3+2) credit hours are being taught from first to sixth semesters (3<sup>rd</sup> and 4<sup>th</sup> semester) Diploma in Agriculture.

**2. Research:**

About to start.

**3. Extension:**

- Department is imparting training to the extension workers, field staffs and farmers of various NGOs to develop their skills for improving animal husbandry practices.
- Department staff is also actively participating in Krushi mela, Khedut Din, Khedut Shibir, Seminar and other programme time to time.
- This department is also guiding farmers and general public through publishing popular articles in various monthly and quarterly magazines on various aspects of animal husbandry practices.

**4. MAJOR ACHIVEMENTS**

**1. Teaching:**

**(a) Under Graduate**

To make the theory and practical note books for U.G. courses are being taught from first to eight semesters B.Sc. (Hons.) in Agriculture.

**Undergraduate courses offered during odd semester:**

S.No.	Semester	Course Number	Title of course	Credits
01	5 <sup>th</sup>	LPM 5.2	Dairy Cattle and Buffalo Production and Management	03 (2+1)

**Undergraduate courses offered during even semester:**

S.No.	Semester	Course Number	Title of course	Credits
01	4 <sup>th</sup>	LPM 4.1	Principles of Livestock Production and Management	02 (1+1)

**Diploma courses offered during odd semester:**

S.No.	Semester	Course Number	Title of course	Credits
01	3 <sup>rd</sup>	LPM 3.1	Principles of Livestock and Poultry Production	02 (1+1)

**Diploma courses offered during even semester:**

S.No.	Semester	Course Number	Title of course	Credits
01	4 <sup>th</sup>	LPM 4.2	Dairy Cattle and Buffalo Production and Management	03 (2+1)

**6. FACILITIES:****Following facilities are under development-**

- i) Laboratory
- ii) Animal science museum
- iii) Store room
- iv) Departmental library

**7. RESEARCH ACTIVITIES: Yet to be start****8. RESEARCH RECOMMENDATION:**

Sr. No.	Title and Recommendation	AGRESCO No. & Year
Within NAU		
	-NIL-	
Other then NAU		
	-NIL-	

**9. PUBLICATIONS**

- (i) Research Paper Published in International Journal: 02
- (ii) Research Paper Published in National Journal: 06
- (iii) Book chapter published: 02
- (iv) Popular articles published in different magazines: 09

**(i) Research Paper Published in International Journal:**

1. Brishketu Kumar, S. K. Sirohi (2013). "Effect of isolates of fibre degrading bacteria on body weight changes, milk production and composition, nutrient intake and nutrient utilization in lactating Murrah buffaloes" *African Journal of Biotechnology*, Vol. **12** (21), pp. 3302-3308.

2. Kumar S.S., Navneet G., Mehta M., Mohini M., Pandey P., Shete S. and Brishketu K. (2012). Efficacy of garlic, eucalyptus and neem powders on rumen modulation, methanogenesis, and gas production kinetics in wheat straw based diet evaluated *in vitro*. *Wayamba journal of Animal Science*, ISSN: 2012-578X.

**(ii) Research Paper Published in National Journal:**

1. Brishketu Kumar, Thakur S.S. (2007). Effect of Supplementing Bypass Fat on Performance of Buffalo Calves. *Indian Journal of Animal Nutr.* **24**, 233-236.
2. Brishketu Kumar, S. K. Sirohi. (2013). "Effect of isolate of ruminal fibrolytic bacterial culture supplementation on ruminal fibrolytic bacterial population as well as on survivability of inoculated bacterial strain in lactating Murrah buffaloes" *Veterinary World*, **6** (1): 14-17.
3. Sunil Kumar Sirohi, T.K. Walli, M.R. Garg\* and Brishketu Kumar. (2013). Effect of Formaldehyde Treated Mustard Cake on Nutrient Utilization and Milk Production Performance in Crossbred Cows Fed Wheat Straw Based Diet. *Indian J. Anim. Nutr.* **30** (1): 5-11.
4. Brishketu Kumar, S. K. Sirohi. (2013). Effect of cellulose degrading bacteria isolated from Murrah buffaloes on *in vitro* fibre digestibility. *Indian Journal of Animal Nutr.* **30** (2): 128-131.
5. Kumar Brishketu, Sirohi S.K, Puniya A.K, Sheel Rakesh, Ahmed H. A (2013). Morphological, biochemical and molecular characterization of fibre degrading bacterial isolates from buffalo rumen. *Indian J. Anim. Nutr.* **30** (3): 246-251.
6. Sheel Rakesh, Sirohi S.K, Kumar Brishketu, Ahmed H. A (2013). Effect of mixture of medium chain fatty acids and unsaturated fatty rich oils on methane production and rumen fermentation *in vitro*. *Indian J. Anim. Nutr.* **30** (3): 256-261.

**List of practical records prepared**

**List of practical records prepared:**

S. No.	Semester	Course Number	Title of course
1	3 <sup>rd</sup>	LPM 3.1	Principles of Livestock and Poultry Production
2	4 <sup>th</sup>	LPM 4.2	Dairy cattle and Buffalo Production and Management

**List of other practical records prepared related to Animal nutrition under Bachelor of Veterinary Science and Animal Husbandry degree programme:**

S. No.	Semester	Course Number	Title of course
1	1 <sup>st</sup>	ANN-111	Principles of Animal Nutrition and Feed Technology
2	2 <sup>nd</sup>	ANN-121	Laboratory Manual of Applied Nutrition-1(Ruminants).
3	3 <sup>rd</sup>	ANN-211	Laboratory Manual of Applied Nutrition-11(Non-ruminants, poultry and laboratory animals).

**b. Teaching materials complied/prepared:**

<b>Sr. No</b>	<b>Publications</b>	<b>Title</b>	<b>Published</b>	<b>Year</b>
1.	Theory Manual	LPM 4.1. (1+1=2) Principles of livestock production and management	College of Agriculture (B.Sc Hons.)	2015
2.	Theory Manual	LPM 5.2. (2+1=3) Dairy cattle and buffalo production and management	College of Agriculture (B.Sc Hons.)	2015
3.	Theory Manual	LPM 3.1. (1+1=2) Principles of livestock and poultry production	Polytechnic in Agriculture Third Semester	2014
4.	Theory Manual	LPM 4.2. (2+1=3) Dairy cattle and buffalo production and management	Polytechnic in Agriculture Fourth Semester	2014

**10. TRANSFER OF TECHNOLOGIES:**

1. Department staff is also actively participating in Krushi mela, Khedut Din, Khedut Shibir and Seminar time to time.
2. This department is also guiding farmers and general public through publishing research articles as well as popular articles in various international and national journals as well as in monthly and quarterly magazines on various aspects of animal husbandry practices.