

DEPARTMENTAL ACTIVITIES

1. TEACHING

A. Undergraduate teaching: this department is involved in under graduate students teaching for the below mentioned courses

Sr. No.	Course No.	TITLE OF THE COURSE	No. of Credits/Week		
			Theory	Pract.	Total
1.	LPM-111	Livestock Production Management-1 (General Principle and Ruminants)	3	1	4
2.	LPM-121	Fodder Production & Grassland Management	1	1	2
3.	LPM-122	Livestock Production Management-II (Mono-gastric and Laboratory Animals)	1	1	2
4.	LPM-211	Avian Production Management	1	1	2
5.	LFP-211	Livestock Farm Practice (Non-Credit)	0	1	1
6.	LPM-221	Commercial Poultry Production and Hatchery Management	1	1	2
7.	LPM-222	Livestock Production Management-III (Regional interest)	1	1	2
8.	LFP-221	Livestock Farm Practice (Non-Credit)	0	1	1
9.	VPP-322, VMD-512 and VMD-513: in collaboration with pathology and medicine.				

In addition to these courses, this department is also involved in followings

A. Study circle modules (03):

- Livestock and livelihood
- Production systems
- Equine

Experiential learning modules (05)

- Broiler production
- Goat production
- Fish production

B. Post Graduate teaching: this department is concerned in postgraduate students teaching for the below mentioned courses

Sr. No.	Course No.	TITLE OF THE COURSE	No. of Credits/Week		
			Theory	Practical	Total
1.	LPM 601	Cattle and buffalo production and management	2	1	3

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2.	LPM 602	Sheep and goat production and management	2	1	3
3.	LPM 603	Swine production and management	1	1	2
4.	LPM 604	Laboratory animal production and management	1	1	2
5.	LPM605	Shelter management	1	1	2
6.	LPM 606	Principles of environmental hygiene and waste management	2	0	2
7.	LPM 607	Climatology and animal production	1	0	1
8.	LPM 608	Poultry farm and hatchery management	2	1	3
9.	LPM 609	Farm animal behavior	1	0	1
10.	LPM 610	Integrated livestock farming system	2	1	3
11.	LPM 611	Equine production and management	1	1	2
12.	LPM 612	Wild life management and conservation	2	0	2
13.	LPM 613	Livestock business management	1	1	2
14.	LPM 701	Advances in cattle and buffalo production And management	3	0	3
15.	LPM 702	Advances in sheep and goat production and Management	2	1	3
16.	LPM 703	Advances in swine production and management	2	1	3
17.	LPM 704	Advances in laboratory animal production and management	1	0	1
18.	LPM 705	Advances in poultry production management	2	1	3
19.	LPM 706	Advances in environmental management	1	1	2
20.	LPM 707	Advances in equine management	2	0	2

C. Post Graduate students enrolled (June, 2013)

Sl. No.	Name of Student	Degree	Status
1.	Dr. G. P. Sabapara	Ph. D. (In-service)	Completed
2.	Dr. Navin Patel	Ph. D. (In-service)	Completed
3.	Dr. L. M. Sorathiya	Ph. D. (In-service)	Completed
4.	Dr. Vijay S Prajapati	M.V. Sc.	Completed
5.	Dr. Piyush Dubey	M.V. Sc.	Completed

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6.	Dr. Vijay Kumar Yadav	M.V. Sc.	Completed
7.	Dr. Viral Gamit	M.V. Sc.	Completed
8.	Dr. Pranav Gamit	M.V. Sc.	Completed
9.	Komal Prjapati	M. V. Sc.	Completed
10.	Patel Ketan	M. V. Sc.	Continued
11.	Gamit Krishna C.	M. V. Sc.	Continued
12.	Damor Vinay	M. V. Sc.	Continued

2. RESEARCH

A. Research Projects

Completed		
Sl. No.	Title	PI
1.	Study on Dairy Husbandry Practices in Navsari Taluka of Navsari District	Dr. Rana Ranjeet Singh
2.	Study on Dairy Husbandry Practices in Jalalpore Taluka of Navsari District	Dr. G. P. Sabapara
3.	Influence of Body Condition Score on Performance and Blood Biochemical Profile in Surti Buffalo	Dr. Rana Ranjeet Singh
4.	Study on Milking Behaviour of Surti Buffalo	Dr. Rana Ranjeet Singh
5.	Study on Dairy Husbandry Practices in Chikhli Taluka of Navsari District	Dr. T. K. S. Rao

On-going		
1.	Study on behavioral facets of Surti buffaloes	Dr. Rana Ranjeet Singh
2.	Use of physical activity monitoring for estrus detection in Surti buffaloes	Dr. Rana Ranjeet Singh
3.	Effect of rubber mat bedding on the lying behavior, cleanliness and hoof and hock injuries in crossbred cows	Dr. N. B. Patel
4.	Study on suckling behavior and mothering ability Vis-à-vis production performance of Surti goat	Dr. T K S Rao

Associated projects		
1.	Evaluation of feeding & management practices of pet dogs in parts of South Gujarat region.	Department of Animal Nutrition
2.	To study diaphoretic pattern of Surti buffalo.	Department of Physiology & Bio-chemistry.

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B. Publication:

i). Research papers/original research

Sr. no.	Details
1.	Rana Ranjeet Singh, Triveni Dutt, Amit Kumar and Mukesh Singh. Comparison of Sire Evaluation Methods for Milk Production in Vrindavani Cattle. <i>Indian Journal of Animal Sciences</i> 80 (5):448-450.
2.	G P Sabapara, P M Desai, V B Kharadi, L H Saiyed and Rana Ranjeet Singh. Housing and feeding management practices of dairy animals in the tribal area of south Gujarat. <i>Indian Journal of Animal Sciences</i> 80 (10):1022-1027.
3.	Rana Ranjeet Singh, Triveni Dutt, Amit Kumar, Mukesh Singh. Estimation of variances due to direct additive genetic and maternal effects for growth traits in Vrindavani cattle. <i>Journal of Applied Animal Research</i> 38 (2010): 145-148.
4.	G P Sabapara, P M Desai, Rana Ranjeet Singh and V B Kharadi. Breeding and health care management status of dairy animals in the tribal area of south Gujarat. <i>Indian Journal of Animal Sciences</i> 80(11): 92-95.
5.	Rana Ranjeet Singh, Triveni Dutt and Amit Kumar. Udder and teat dimensions and its association with milk production traits in Vrindavani cattle. <i>Indian Journal of Dairy Science</i> 63(6).
6.	Rana Ranjeet Singh, Triveni Dutt, Amit Kumar, A K S Tomar and Mukesh Singh. Evaluation of production and reproduction traits in Vrindavani cattle. <i>Indian Journal of Animal Sciences</i> 81 (3): 296-98.
7.	Rana Ranjeet Singh, Triveni Dutt, Amit Kumar, A K S Tomar and Mukesh Singh. On-farm characterization of Vrindavani cattle in India. <i>Indian Journal of Animal Sciences</i> 81 (3): 267-71.
8.	Rana Ranjeet Singh, Triveni Dutt, Amit Kumar. Genetic analysis of growth performance of Vrindavani cattle. <i>Indian Journal of Animal Sciences</i> 81 (5): 525-26.
9.	Rana Ranjeet Singh, Triveni Dutt, Amit Kumar. Prediction of body weights of Vrindavani cattle using morphometric measurements. <i>Indian veterinary Journal</i> 88 (9): 148-150.
10.	G P Sabapara, P M Desai, Rana Ranjeet Singh, and V B Kharadi. Constraints of tribal dairy animal owners of south Gujarat. <i>Indian Journal of Animal Sciences</i> 82 (5): 538-542.
11.	Thakur Krishna Shankar Rao, Mohanty.T.K, Gupta.A.K, Chauhan I.S., Singh M and Singh R.R. 2012. Assessment of the efficacy of filtration of low grade ejaculates using different columns on preservability and seminal characteristics of cross bred bull semen. <i>Indian Veterinary Journal</i> . 89(11): 44-45.
12.	N. B. Patel, L H Saiyed, T. K. S. Rao, Rana Ranjeet singh, R. J. Modi and G. P. Sabapara. Socio-economic status and managerial constraints faced by dairy farmers of tribal in Narmda district of South Gujarat region. <i>Animal Science Reporter Journal</i> . (In press, August, 2013).
13.	B.S. Divekar and L. H. Saiyed.2008. Constraints faced by professional Gir cattle

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	owner of Anand district in Gujarat. <i>Indian Journal of Field veterinarian</i> 3(3):72
14.	B.S. Divekar and L. H. Saiyed.2008. Feeding practices followed by professional cattle owner of Anand district. <i>Indian Journal of Field veterinarian</i> 3(4):31
15.	B.S. Divekar and L. H. Saiyed.2010. Socio-economic and literacy status and milking practices followed in middle Gujarat by professional Gir cattle breeders. <i>Indian Journal of Field veterinarian</i> 4(4):50-54.
16.	B.S. Divekar and L. H. Saiyed.2010. Housing and breeding practices followed by professional Gir cattle owner of Anand district. <i>Indian Journal of Field veterinarian</i> 5(4):9
17.	S B Deshpande , P M Desai, V B Kharadi and G P Sabapara .2009. Phenotypic and Performance Characteristics of Surti Goats. <i>Indian journal of Small Ruminants</i> 15(1):108-112.
18.	S. B. Deshpande, G. P. Sabapara and V. B. Kharadi. 2009. A Study on Breeding and Healthcare Management Practices Followed by Goat Keepers in South Gujarat Region. <i>Indian Journal of Animal Research</i> 43(4): 259-262.
19.	S. B. Deshpande and G. P. Sabapara. 2010. Involvement of Women in Surti Goat Rearing. <i>Indian Journal of Animal Research</i> 44(1): 64-66.
20.	G. P. Sabapara and S. B. Deshpande. 2010. Mortality Pattern in Surti Goats under Field Condition. <i>Veterinary World</i> 3(4): 165-166.
21.	G P Sabapara, S B Deshpande , V B Kharadi and P K Malik.2010. Housing and feeding managemental practices for goat followed in South Gujarat. <i>Indian Journal of Animal Sciences</i> 80(4):385-387.
22.	S. B. Deshpande, G. P. Sabapara and V. B. Kharadi. 2010. Socio-economic Status of Goat Keepers in South Gujarat Region. <i>Indian journal of Small Ruminants</i> 16(1):92-96.
23.	S B Deshpande, G P Sabapara, P K Malik, D K Sadana, P K Singh, Gurmej Singh and B K Joshi.2010. Morpho-metric Characteristics of Surti Goats and Socio-economic Status of Surti Goat Keepers. <i>Indian Journal of Animal Sciences</i> 80(6):575-577.
24.	G. P. Sabapara, S. B. Deshpande, Gurmej Singh and B. K. Joshi. 2010. Reproduction and Production Performance of Surti Goats in Its Native Tract. <i>Indian journal of Small Ruminants</i> (In press).
25.	R. J. Modi, K. B. prajapati, N. B. Patel and H. D. Chauchan. (2010) Dairy animal housing pattern in rural area of milk shed og Gujarat. <i>Indian journal of dairy science</i> . Vol.63(1) 2010
26.	R. J. Modi and N. B. Patel. (2010)Breeding practices in dairy animal of rural area under milk shed of North Gujarat. <i>Indian Journal of Field Veterian</i> . Vol. 5 April-june (2010)
27.	S P Dixit, R A K Aggarwal, P S Dangi, N K Verma, M K Vyas, Jyoti Rana, Anurodh Sharma, V B Kharadi, G P Sabapara, S B Deshpande. 2013. Phenotypic characteristics, management, performance and genetic variability in Surti breed of goat. <i>Indian Journal of Animal Sciences</i> 83 (4): 423-427.
28.	Modi, R. J., Prajapati K.B. and Patel, N.B. (2010). Dairy animal housing pattern in rural area of milk shed of Gujarat. <i>Indian journal of dairy science</i> . 63 (1): 46-47.
29.	Modi, R. J.,Prajapati K.B. and Patel, N.B. (2010). Breeding practices in dairy animal

of rural area under milk shed of North Gujarat. *Indian Journal of Field Vet.* **5** (2):5-6.

30. **Patel, N.B.**, Patel, J. B., Fulsoundar, A. B., Rao, T. K. S. and Modi, R. J.(2014).Feeding management practices of dairy animals in Patan District of North Gujarat region. *Indian Journal of Animal production And Management.* **30**(3-4): 76-81.

31. **Patel, N. B.**, Saiyed, L. H., Rao, T. K. S., Rana Ranjeet Singh, Modi, R. J. and Sabapara, G. P.(2013). Status and Constraints of Dairying in The Tribal Households of Narmada Valley of Gujarat - India. *Animal Science Reporter.* **7**(3):83-89.

32. **Patel, N. B.**, Patel, J. B., Rao, T. K. S., Singh, R. R. and Modi, R. J. (2013). Housing management practices of dairy animal in Patan district of north Gujarat region. *Indo-Am. J. Agric. & Vet. Sci.*,**1**(1),31-37.

33. Rao, T. K. S., **Patel, N. B.**, Fulsoundar, A. B. and Gamit, V. K. (2013). Constraints limiting the livestock productivity of tribal community in high rain coastal region of India. *Research journal of animal husbandry and dairy science.***4**(2):42-46.

34. **Patel, N. B.**, Kavad, S. D. and Rao, T. K. S. (2014). Eco-friendly livestock management practices followed by tribal households of Narmada valley region of India. *Journal of Applied and Natural Science.* **6** (2): 512-518.

35. Rao, T. K. S., **Patel, N. B.** and Tyagi, K. K. (2015). Eco-friendly housing and feeding management of dairy animals in tribal area of high rain coastal India. *Research in Environment and life science.* **8** (1): 75-80.

ii). Popular articles

Sr. No.	Authors/Title/Journal/Magzine
1.	P. M. Desai, G. P. Sabapara and Rana Ranjeet Singh. 2009. Gunavatta sabhar dugdh utpadan. Kishi Mahotsava Parisamvad. Navsari Agricultural University, Navsari. Page no. 9-19.
2.	Rana Ranjeet Singh, G. P. Sabapara, P. M. Desai and V. B. Kharadi. 2010. Effects of climate change on livestock farming. <i>Indian Farming</i> , 60 (2): 30-32.
3.	G.P.Sabapara, Rana Ranjeet singh, L.H.Saiyed and K.Gediya.2010.Pashuaaharma hanikarak tatvothi thatiyeri asaro ane atkavavana upayo. Kishi Mahotsava Parisamvad.Nay, 2010. Navsari Agricultural University, Navsari. Page no. 50-55.
4.	G.P.Sabapara, Rana Ranjeet singh and L.H.Saiyed .2010.Pashu aahar ma lila ghash charanu mahatva.Smarnika, Krishi Mela-,2010. Navsari Agricultural University, Navsari. Page no. 484-485.

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5.	Kore K.B., Patel V.R., Mirajkar, P.P. and Rana Ranjeet Singh. 2012. Role of Methionine in prevention and control of Aflatoxicosis in poultry. Poultry Line 12 (2): 34-36.
6.	Amit Kumar, S. B. Sudhakar, R. R. Singh and R B Rai. 2012. Rabbit farming as a source of self employment in Sub urban as well as rural areas. Livestock Technology, SR publication.
7.	G.P.Sabapara, Rana Ranjeet singh and L.H.Saiyed .2010.Pashu aahar ma lila ghash charanu mahatva.Smarnika, Krishi Mela
8.	G.P.Sabapara, Rana Ranjeet singh and L.H.Saiyed . 2010. Vodkione iucher ane mavjat .Smarnika, Krishi Mela
9.	G.P.Sabapara, Rana Ranjeet singh and L.H.Saiyed . 2010.Sagarbha ane vasukela gay bhaish ni mawjat ane khorak, Krishi Mela
10.	G. P. Sabapara, P. M. Desai, V. B. Kharadi and. S. B. Deshpande, 2008. Importance of Sheep Husbandry in Indian Economy. Navkrushak, N.M.C.A., Navsari Agricultural University, Navsari. 36:37
11.	P. D. Vihol, P. M. Desai, C. F. Chaudhary and G. P. Sabapara 2009. Daxin Gujarat ma jova malata Pranjanya Rogo. Kishi Mahotsava Parisamvad, 2009. Navsari Agricultural University, Navsari. Page no.20
12.	G. P. Sabapara and H. J. Derashri 2009. Pashu Prajanana Prashno ane tenu nivanan. Kishi Mahotsava Parisamvad, 2009. Navsari Agricultural University, Navsari. Page no.28
13.	G. P. Sabapara, S. B. Deshpande, V. B. Kharadi and P. M. Desai. 2009. Dudhala Pashuoni Mavajat. Kishi melo.
14.	G. P. Sabapara, V. B. Kharadi, S. B. Deshpande, and P. M. Desai. 2009. Pashupalannu agatyanu pashu: Pashu savardhan. Kishi melo
15.	G. P. Sabapara, S. B. Deshpande and V. B. Kharadi. 2009. Daxin Gujaratma pashuoma thata Krumijanya Rogo ane tenu Niyantran. Kishi melo
16.	K. P. Pandya, G. P. Sabapara and K. V. Gediya. 2010.Pashuyoma unchi prajanan chhamata jhalvava mate na upayo. Godarshan guide 4(2):17
17.	Prajapati K.B. and Patel N.B. (2006) <i>Safar Dudh vyvasay mate atlu karo</i> . An article published in Gujarati news paper “Krushi Sandes
18.	Brahmxatri K.G., Patel N.B.and patel K.S (2006) <i>Paramni poshanmulayata vadharvani uriya prakriya..</i> An article published in Gujarati news paper “Krushi Vishav, Gujarat Samachar”26, Oct.,2006.
19.	Manknojiya A.G., Modi S.K., Brahmxatri K.G.and Patel N.B. (2007) <i>Asvagandha aek arurvedic auashadh pashuchikistani drastie</i> . An article published in Gujarati magazine “Godarsan- Guide,”5, Jan.,2007(74).
20.	Patel N.B., Brahmxatri K.G.,and Manknojiya A.G.,(2007) <i>Silage banavasni prakriya..</i> An article published in Gujarati news paper “Krushi Vishav, Gujarat Samachar”30, jan.,2007.
21.	Patel N.B. (2007) <i>Padi Vachhardi ucher mate levati samaysar kargio</i> . An article published in Gujarati magazine “Godarsan- Guide,”5, Sept.,2007(13).
22.	Patel N.B., Tank U.N. and Dobariya K.D.(2008) <i>Pashupalanma saru chhaniyu khatar banavi khetine samrudh banavo</i> . An article published in Gujarati magazine “Godarsan- Guide,”5, July.,2008(16).

23.	Patel, N.B. , Patel, J. M. and Vihol, Priti (2009). Safal pashupalan mateni chvio. An article published in Gujarati magazine “Godarsan- Guide,”5, December.,2009(19).
24.	Patel, J. M., Chauhan, N. M. and Patel, N.B. (2010). Adarsh Bakara Palan. An article published in Gujarati magazine “Krushigovidhya”,October.,2010(21).
25.	Patel, N.B. , Saiyed, L.H., Singh, Rana Ranjeet., Rao, T.K.S. and Sabapara, G.P. (2011). Adarsh pashupalan matena soneri suchano.Vibrant Taluka pashupalan Shibir Samarnika,Krushimahostave-2011,Vanbandhu College of Veterinary Science & A.H. Navsari Agricultural University, Navsari. Pp.11.
26.	Sabapara, G.P., Saiyed, L.H. and Patel, N.B. (2011). Vaikhananik dhabe dudhala pashuoni mavajat ane karhi.Vibrant Taluka pashupalan Shibir Samarnika,Krushimahostave-2011,Vanbandhu College of Veterinary Science & A.H. Navsari Agricultural University, Navsari. Pp.13.
27.	Patel, N.B. , Saiyed, L.H., Singh, Rana Ranjeet., Rao, T.K.S. and Sabapara, G.P. (2011). Bakarapalan.Vibrant Taluka pashupalan Shibir Samarnika,Krushimahostave-2011,Vanbandhu College of Veterinary Science & A.H. Navsari Agricultural University, Navsari. Pp.44.
28.	Singh, Rana Ranjeet., Saiyed, L.H., Sabapara, G.P. and Patel, N.B. (2011). Garmina tanavani pashu-utpadanne thathi asaro ane tenu nivaran..Vibrant Taluka pashupalan Shibir Samarnika,Krushimahostave-2011,Vanbandhu College of Veterinary Science & A.H. Navsari Agricultural University, Navsari. Pp.45.
29.	Patel, N.B. , Saiyed, L.H. and Sabapara, G.P. (2011). Lila gasscharanu sailage.Vibrant Taluka pashupalan Shibir Samarnika,Krushimahostave-2011,Vanbandhu College of Veterinary Science & A.H. Navsari Agricultural University, Navsari. Pp.49.
30.	Saiyed, L.H., Sabapara, G.P. and Patel, N.B. (2011). Sagarbha ane vashukela pashuni pashuni sarsabhal.Vibrant Taluka pashupalan Shibir Samarnika,Krushimahostave-2011,Vanbandhu College of Veterinary Science & A.H. Navsari Agricultural University, Navsari. Pp.53.

iii). Lead papers

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Sr. No.	Authors/Title
1.	Rana Ranjeet Singh, N H Kelawala, A B Fulsoundar, N B Patel and T K S Rao. 2013. Climate change and sustainable development of livestock sector. All India conference on livestock& dairy development held at Gandhinagar, Gujarat on 11 th June, 2013, pp 140-144.
2.	T K S Rao, N B Patel, R R Singh, G P sabapara and A B Fulsoundar. 2013. Strategies for sustainable milk production in livestock at farm and farmers doorstep. All India conference on livestock& dairy development held at Gandhinagar, Gujarat on 11 th June, 2013, pp 145-147.
3.	N B Patel, A B Fulsoundar, R R Singh, T K S Rao and G P sabapara. 2013. Problems and prospects of organic dairy farming in India. All India conference on livestock& dairy development held at Gandhinagar, Gujarat on 11 th June, 2013, pp 148-149.
4.	N H Kelawala and Rana Ranjeet Singh. 2011. Problems and prospects of dairy industry in India. A special publication on Agro-based industries in India, special lecture series organized by ASPEE Agribusiness Management Institute, NAU, Navsari on 23 rd -25 th May, 2011.
5.	P. M. Desai, V. B. Kharadi, G. P. Sabapara and Rana Ranjeet Singh. 2010. Organic milk production scenario in India (Lead paper). State level Seminar on Organic Farming held from 6-7 th March, 2010 at NAU, Navsari.
6.	N. H. Kelawala, P.M. Desai, Rana Ranjeet Singh, G.P. Sabapara and N Kumar. 2009. Impact of Climate Change on Livestock: Issues and Approach (Lead paper). National Seminar on Dimensions of climate change affecting education and research agenda for livestock health and production and national colloquy on quality deliverance of new under-graduate veterinary course curriculum held from September 24-25, 2009 at DUVASU, Mathura.
7.	Patel, N.B. , Fulsoundar, A.B., Singh, R.R., Rao, T.K.S. and Sabapara, G.P. 2013 Problems and Prospects of Organic Dairy Farming in India. Lead Paper published in All India conference on " Livestock & Dairy Development" held at Gandhinagar,Gujarat(148).
8.	Singh, R.R., Kelawala, N.H., Fulsoundar, A.B., Patel, N.B. and Rao, T.K.S. 2013. Climate Change and Sustainable Development of Livestock Sector. Lead Paper published in All India conference on " Livestock & Dairy Development" held at Gandhinagar,Gujarat(140).
9.	Rao, T.K.S., Patel, N.B. , Singh, R.R., Sabapara, G.P. and Fulsoundar, A.B. 2013. Strategies for sustainable milk production in livestock at farm and farmer doorstep. Lead Paper published in All India conference on " Livestock & Dairy Development" held at Gandhinagar,Gujarat(145).
10.	Fulsoundar, A.B., Rao, T.K.S., Patel, N.B. , Singh, R.R. and Gamit, V. 2014. Improving cow comfort in herd: a critical issue in climate change situation. Lead Paper published in The National Seminar on " New Dimensional Approaches for Livestock Productivity and Profitability Enhancement under Era of Climate Change"&XXI Annual Convention of Indian Society of Animal Production & Management 28-30 January, 2014 ,held at Anand Agri. University, Anand (237).
11.	Singh, R.R., Fulsoundar, A.B., Singh, V. K., Patel, N.B. , Sorathiya, L. M. and Rao,

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T.K.S. 2014. Role of advance dairy technology options in augmenting livestock Productivity under global climate change. Lead Paper published in The National Seminar on " New Dimensional Approaches for Livestock Productivity and Profitability Enhancement under Era of Climate Change"&XXI Annual Convention of Indian Society of Animal Production & Management 28-30 January, 2014 ,held at Anand Agri. University, Anand (470).

12. Fulsoundar, A.B., Rao, T.K.S., **Patel, N.B.**, Singh, G.P. Sabapara, L.M. Sorathiya and K.C. Gamit. 2014. Protocol for assessment of welfare and biological process including bio-acoustical facts in cattles. Lead Paper published in The National Seminar on " Revisiting Management Policies and Practices for Indigenous Livestock & Poultry Breeds as Eco-friendly economic Producers." & Silver Jubilee Convention of Indian Society of Animal Production & Management 9-11 October, 2014 ,held at Navsari Agri. University, Navsari (274).

13. Fulsoundar, A.B., Rao, T.K.S., **Patel, N.B.**, Singh. R. R and V.V. Gamit. 2014. Mitigation of transition stress in springer cattle and buffaloes: big challenges and opportunites. Lead Paper published in The National Seminar on " Revisiting Management Policies and Practices for Indigenous Livestock & Poultry Breeds as Eco-friendly economic Producers." & Silver Jubilee Convention of Indian Society of Animal Production & Management 9-11 October, 2014 ,held at Navsari Agri. University, Navsari (401).

iv). Review papers

Sr. No	Details
1.	Rao TKS, Kumar N, Kumar P, Chaurasia S and Patel NB (2013) Heat detection techniques in cattle and buffalo, 6(6):363-369, doi:10.5455/vetworld.2013.363-369
2.	Rao TKS, Kumar N, Patel NB, Chauhan I and Chaurasia S (2013) Sperm selection techniques and antioxidant fortification in low grade semen of bulls: Review, Vet World 6(8): 579-585, doi:10.5455/vetworld.2013.579-585

v). Books/Booklets

Sr. No.	Title
1.	Farm animal management: Principles and practices.
2.	Narmada jillama pashupalanno vaigyanik abhigam.
3.	Prathmik pashu rog upchar ane niyantran.
4.	Pashupalan
5.	Surti goat: the pride of South Gujarat.
6.	Narmada jillani sarvangi krushi vikas mateni margdarshika-2010.
7.	Narmada jillama pashupalanano vaiknanik abhigam- 2011.

vi). Practical manuals

Sr. No.	Details
1.	Rana Ranjeet Singh and P. M. Desai. 2009. Practical manual of livestock production and management. Animal housing and sanitation (LPM-121). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
2.	Rana Ranjeet Singh, L. H. Saiyed, TKS Rao, N B Patel and G. P. Sabapara. 2012. Manual of practical's. General principles and ruminants (LPM-111). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
3.	G. P. Sabapara, A B Fulsoundar, N B Patel, T K S Rao and Rana Ranjeet Singh. 2012. Manual of practical's. Fodder Production & Grassland Management (LPM-121). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
4.	T K S Rao, A B Fulsoundar, Rana Ranjeet Singh, G. P. Sabapara and N B Patel. 2012. Manual of practical's. Livestock Production & Management-II (Monogastric and Laboratory Animals, LPM-122). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
5.	L. H. Saiyed, N B Patel, T K S Rao, Rana Ranjeet Singh and G. P. Sabapara. 2012. Practical manual for Avian production & management (LPM 211). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
6.	Rana Ranjeet Singh, G. P. Sabapara, T K S Rao and L. H. Saiyed. 2010. Practical manual for swine/camel/equine & yak production (LPM 311). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
7.	T K S Rao, Rana Ranjeet Singh, G. P. Sabapara and L. H. Saiyed. 2010. Practical manual On Wild and Zoo Animal Health Care and Management/Fish Production (LPM 312). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
8.	G. P. Sabapara, Rana Ranjeet Singh, T K S Rao and L. H. Saiyed. 2010. Practical manual on <i>Laboratory</i> Animal/Rabbit/Fur Animal Production & Management & Pet Animal Care (LPM 313). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
9.	N B Patel, A B Fulsoundar , T K S Rao, Rana Ranjeet Singh and G. P. Sabapara. 2012. Practical manual for Avian production & management (LPM 212). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari.
10.	T K S Rao, Rana Ranjeet Singh , A B Fulsoundar, N B Patel and G. P. Sabapara. 2012. Manual of practical's. Livestock Production & Management-III (commercial dairy farming and bio-energy, LPM-222). Department of livestock production and management. College of Veterinary Science and Animal Husbandry, Navsari

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vii). Training manuals

Sr. No.	Details	Participants	Year
1.	Training manual for VO and LI under ASCAD	VO & LI	2014-2015
2.	Advances in Livestock Production Management	VO	2013
3.	Pashudhan utpadan ane vyvastha	LI	2013
4.	Marghapalan	Rural youth	2013
5.	Recent advances in Livestock Production & Management	VO	2011
6.	Training manual for Livestock Inspectors	LI	2010
7.	Training manual for Livestock Inspectors	LI	2010

viii). Paper/ abstract presented in National Seminar/Symposium

1. Rana Ranjeet Singh, G.P. Sabapara, P.M. Desai and V.B. Kharadi. 11-13 December, 2009. Impact of climate change on animal rearing tribal communities. National Seminar on sustainable development of tribal areas through integrated and eco-friendly approaches held from 11-13 December, 2009 at Krishi Vigyan Kendra, Navsari agricultural University, Waghai (Dang), Gujarat.
2. Rana Ranjeet Singh, Triveni Dutt, A K S Tomar, Amit Kumar, Bharat Bhushan, V B Kharadi, P M Desai, L H Saiyed and G P Sabapara. 10-11 February, 2010. Phenotypic characterization and genetic evaluation of Vrindavani cattle. National Symposium on Challenges to domestic animal biodiversity & action plan for its management and utilization held from 10-11 February, 2010 at Anand Agricultural University, Anand, Gujarat.
3. G.P. Sabapara, V.B. Kharadi, Rana Ranjeet Singh and P.M. Desai. 2009. Feeding and Housing Management Practices of Dairy Animals in the Tribal Area of Navsari District. National Seminar on sustainable development of tribal areas through integrated and eco-friendly approaches held from 11-13 December, 2009 at Krishi Vigyan Kendra, Navsari agricultural University, Waghai (Dang), Gujarat (pp-166).
4. G.P. Sabapara, V.B. Kharadi, P.M. Desai and Rana Ranjeet Singh. 11-13 December, 2009. Breeding and Health Care Management Practices in the Tribal Area of South Gujarat. National Seminar on sustainable development of tribal areas through integrated and eco-friendly approaches held from 11-13 December, 2009 at Krishi Vigyan Kendra, Navsari agricultural University, Waghai (Dang), Gujarat (pp-165).
5. G.P. Sabapara, P.M. Desai, V.B. Kharadi, and Rana Ranjeet Singh. 11-13 December, 2009. Constraints in adoption of improved dairy animal husbandry practices in the tribal area of south Gujarat. National Seminar on sustainable development of tribal

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areas through integrated and eco-friendly approaches held from 11-13 December, 2009 at Krishi Vigyan Kendra, Navsari agricultural University, Waghai (Dang), Gujarat (pp-165-166).

ix). Abstracts published in National seminar: 30

x). Folder published: (Gujarati Language)

Si. No.	Topic of folder	Year of publication
1	“Lila gasscharanu sailage”	2009-10
2	“Bakarapalan”	2009-10
3	“Dudh utapadanma savastanu mahatave”	2009-10
4	“Ajani vacharadi kalni gay”	2009-10
5	“Sara dudhala janvaroni pasandagi”	2009-10
6	“Adarsh pashupalan matena soneri suchano”	2009-10
7.	“khanijsharonu pashuna svasthay, dudh utapadan ane prajananma mahatave”	2009-10

4. Other activities:

- Dr. N. B. Patel is In-charge Class room and generator of A- wing
- Dr. Rana Ranjeet Singh is Co-ordinator Study circle
- Dr. T. K. S. Rao is member of Press committee- Examination Cell
- Dr. T. K. S. Rao is Co-ordinator in Entrepreneurship training module
- Dr. T. K. S. Rao is member JRF tutorial class- Animal science group (P): ICAR
- Dr. Rana Ranjeet Singh and Dr. N. B. Patel is member of student representative council

4. Faculty Improvement programmes:

i). Training programmes attended

Summer school/advance training courses attended

Sr. No.	Name of the programme	Institute	Faculty
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1.	Nutritional Interventions for Clean and Green Livestock Production	CAFTAN, IVRI, Izatnagar, U.P. (03-23 February, 2011)	Dr. Rana Ranjeet Singh
2.	Summer school on Farmer`s Empowerment and Entrepreneurial Development through Livestock Farming	LPM Section, IVRI, Izatnagar, Bareilly, U.P. (May 14- June 03, 2012)	Dr. Rana Ranjeet Singh
3.	Summer school on “Advances Nutritional management	CIRG,MAKDOOM, MATHURA (4-24th August, 2009)	Dr. N B Patel
4.	Training programme on leadership & entrepreneurship development for professor and scientists.	NAU, Navsari (17-21, January, 2011).	Dr. T K S Rao
5.	Short course on Recent advances in crop residues based total mixed ratio for improving animal productivity.	AAU, Anand (15-24, February, 2012).	Dr. T K S Rao
6.	Winter school on current concept and frontier technologies for fertility management in farm animals	(5 th -25 th October, 2015) NDRI, Karnal	Dr. T K S Rao
7.	Short course on Prospect and retrospect in Assisted reproductive technologies	8 th to 28 th January 2016, IVRI Izatnagar	Dr. T. K. S. Rao
8.	CAFT course on Recent strategies and developments in diversified poultry production for augmenting rural economy of small and marginal farmers	3 rd to 23 rd February 2016, TANUVAS, Namakal	Dr. N. B. Patel

ii). Participated in seminar/symposium/conference/workshop/scientist meet

Sr. No.	SEMINAR/SYMPOSIUM/CONFERENCE
Seminar (11)	
1.	Technical Seminar on Measures to control economic losses in dairy animals held at Navsari agricultural University (March 13, 2009).
2.	National Seminar on Dimensions of climate change affecting education and research agenda for livestock health and production and national colloquy on quality deliverance of new under-graduate veterinary course curriculum held from September 24-25, 2009 at DUVASU, Mathura.
3.	State level seminar on Organic Farming held on 6-7 th , March, 2010 at NAU, Navsari, Gujarat.
4.	National Seminar on sustainable development of tribal areas through integrated and eco-friendly approaches held from 11-13 December, 2009 at Krishi Vigyan Kendra, Navsari agricultural University, Waghai (Dang), Gujarat.
5.	Technical Seminar on “Strategic control of Zoonotic Diseases in Livestock” held at

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	NAU, Navsari on 20th Nov,2010.
6.	Seminar cum-NRDC industry interaction meets on Agro, Agri Processing and Dairy Technologies on 16 th December, 2011 organized by NRDC& ASSOCHAM at Ahmadabad.
7.	Seminar on Importance of nutritional and animal health status to augment milk production held at Surat, 1 st , May, 2011.
8.	State level seminar on Role of veterinarians in containment of antimicrobial resistance on 28 th April, 2012, organized by vanbandhu college of Vety. Sci & Ani. Hus., NAU, Navsari, Gujarat.
9.	National Seminar on “Prospects of Livestock and Dairying in India under Changing Global Economic Era” held at AAU, Anand during 17-18 th January,2013.
10.	One Day Seminar on “Advances in Veterinary Practices for Sustainable Productivity and Health held at NAU, Navsari on 23rd February,2013.
11.	Seminar on Advance technology in dairy farming held SUMUL dairy Surat on 5 th May, 2013.
12.	National Seminar on New Dimensional Approaches for Livestock Productivity and Profitability Enhancement under Era of Climate Change”&XXI Annual Convention of Indian Society of Animal Production & Management 28-30 January “AAU, Anand, 2014.
13.	National Seminar on Revisiting management policies and practices for indigenous livestock & Poultry breeds as eco-friendly economic producers, 9-11 October, 2014
Symposium (03)	
1.	National symposium on emerging and exotic diseases of poultry held at IVRI during March 10-11, 2005.
2.	National Symposium on Challenges to domestic animal biodiversity & action plan for its management and utilization held from 10-11 February, 2010 at Anand Agricultural University, Anand, Gujarat.
3.	National Symposium on Physiological research in changing scenario for sustainable livestock and poultry production held at NAU, Navsari during 6-8 th November, 2012.
Conference (02)	
1.	International Conference on Global Warming: Agriculture, Sustainable Development and Public leadership held on 11-13 th , March, 2010 at Ahmadabad, Gujarat.
2.	All India conference on livestock& dairy development held at Gandhinagar, Gujarat on 11 th June, 2013.
Workshop	
1.	Workshop on “Application of PRA Tools in Agriculture Extension” by E.E.I., AAU At; NAU,Navsari during 8-10th July,2009.

C. Research Recommendation: Three

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D. Recognized guide for M. V. Sc. : Four

3. Extension:

- Expert lecture during Krushi mahotsav, exhibition and stall of Veterinary College
- Consultancy and guidance regarding housing and standard management practices for optimum production in livestock and starting new farm.

Training programmes organized

Sl. No.	Title	Duration
1.	Training Programme for Veterinary officers and LI in the field of Livestock production & Management under ASCAD-2014 & 2015 organized	Year 2014 & 15
2.	Training Programme for Veterinary officers in the field of Livestock production & Management under ASCAD-2013 Programme.	07-13 th , January 2013

5. Achievement:

Award:

- Dr. R. R. Singh received best poster award in National Seminar ISAPM, 9-11 October 2014 held at NAU, Navsari