

Department of Physiology

Research

1. List of Research Projects: Completed& Ongoing

Sr. No.	Title of the Project	Name of PI/ Major Advisor/ Research Worker	Funding Agency	Total Cost of the project (Rs in Lakh)	Extra-mural (Funding agency)/ Intra-mural	Status (Completed/On going)	Duration
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2. List of Private Agency Projects:

Sr. No.	Title of the Project	Name of PI/ Major Advisor/ Research Worker	Funding Agency	Total Cost of the project (Rs in Lakh)	Extra-mural (Funding agency)/ Intra-mural	Status (Completed/Ongoing)	Duration
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3. Research Priorities:

Sr. No.	Research Area	Aim	Objective	Benefits of Farmers

4. Thesis:

Master:

Name of Department: Veterinary Physiology				
Sr. No.	Name of the Student	Title of Thesis	Year of Completion	Name of the Advisor
Nil				

Doctoral:

Name of Department: Veterinary Physiology				
Sr. No.	Name of the Student	Title of Thesis	Year of Completion	Name of the Advisor
Nil				

5. Research Papers Published: **32**

List of Research Publications: As per list attached in PDF

Sr. No.	Authors	Year	Title of the Research Paper	Name of the Journal	Volume; Page Nos.	NAAS Rating, if any
1	<u>S. A. Dhenge</u> , R.N. Shirbhate, K.B. Bahiram, A.K. Wankar, V.N. Khandait and R.B. Patankar	2009	Haemato-biochemical profile of broilers supplemented with <i>Withania somnifera</i> (Ashwagandha) and <i>Andrographis paniculata</i> (Bhuineem)	Ind. J. Field Vet.	5(1):5-8	
2	A.K. Wankar, R.N. Shirbhate, K.B. Bahiram and <u>S.A. Dhenge</u>	2009	Effect of Neem (Azadirachta indica) leaf powder supplementation on haemato-biochemical parameters in broilers.	Ind. J. Field Vet.	4(4):43-45	

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3	Alok K. Wankar, R.N. Shirbhate, K.B. Bahiram and <u>S.A. Dhenge</u>	2009	Effect of Neem (Azadirachta indica) leaf powder supplementation on growth in broilers.	Vet. World	2(10):396-397	
4	V.N. Khandait, S.H. Gawande, A.C. Lohkare and <u>S.A. Dhenge</u>	2011	Adoption level and constraints in backyard poultry rearing practices at Bhandara District of Maharashtra	Res. J. Agr. Sci.	2(1):110-113	
5	P.S. Kuralkar, S. A. Dhenge and S.V. Kuralkar	2013	Haematological profile of Purnathadi strain of Nagpuri Buffalo.	Ind. J. Field Vet.	9(4):75-76.	
6	<u>S. A. Dhenge</u> , Kuralkar Prajakta and Nagre S.M.	2014	Physiological and haematological profile of male purnathadi buffalo calves during summer.	Ind. J. Field Vet.	10 (1):79-80	
7	Kuralkar Prajakta, <u>Dhenge S.A.</u> , Nagre S. M. and Kuralkar S. V.	2014	Physiological profile in neonate calves of Purnathadi buffalo.	Ind. J. Field Vet.	10 (1):45-47	
8	Prajakta Kuralkar, <u>S. A. Dhenge</u> and S.V. Kuralkar	2015	Study on haematological parameters in berari goat.	Ind. J. Vet. Sci. & Biotech.	11 (1):30-31	
9	<u>Dhenge, S.A.</u> , Shirbhate R., Wankar, A. and Khandait V.	2018	Effect of dietary supplementation of Ashwagandha (Withania somnifera) and Kalmegh (Andrographis paniculata) on growth performance and immune status in broilers.	Int. J. Agr. Sci.	10(24):7634-7636	
10	<u>Dhenge S.A.</u> , Gade N. E., Mishra O. P., Rawat N., Singh V. and Srivastva A.	2018	In vitro Cytotoxicity Analysis of Nitrogen Doped Graphene Oxide Hydroxyapatite Nanocomposite (N2-GO-HA NC) in Caprine Wharton's Jelly Derived Mesenchymal Stem Cells (WJ-MSCs) and Blood Cells.	Int. J. Agr. Sci.	10(12):6387-6391	
11	<u>Dhenge, S.</u> , Gade, N., Mishra, O. and Vinod Kumar	2018	Dose-dependent In Vitro Cytotoxic Effects of Phosphorus Doped Graphene Oxide Titanium Oxide Nanocomposite (P-GO-TiO2 NC) on Caprine Wharton's Jelly Derived Mesenchymal	Journal of Animal Research.	8(6):959-966	

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			Stem Cells (WJ-MSCs) and Erythrocytes			
12	Prajakta Kuralkar, <u>S. A. Dhenge</u> and S.V. Kuralkar	2018	Age related changes in haematology and plasma biochemical profile in Purnathadi buffalo.	Buffalo Bulletin.	37(3):291-296.	
13	Rajwade N., Kumari Kiran, Gendley M. K., Dubey M., Gade N. E., <u>Dhenge S.A.</u> , Sahu D. and Yadav R.K.	2019	Effect of dietary supplementation of rumen protected methionine and lysine on haematological and blood biochemical profile in Sahiwal female calves.	Int. J. Agr. Sci.	11(8):8322-8324	
14	<u>Sandeep A. Dhenge</u> , Nitin E. Gade, Omprakash Mishra and Mangesh M. Vaidya	2019	In vitro cytotoxic effects of hybrid graphene oxide nanocomposites (hGO NCs) on cryopreserved caprine Wharton's jelly derived mesenchymal stem cells (WJ-MSCs).	Jou. of Expt. Biol. & Agri. Sci.,	7(3):335-342	
15	<u>S. A. Dhenge</u> , N.E. Gade, O.P. Mishra, Abinash Kumar and V.N. Khandait	2020	In vitro cytocompatibility assessment of nitrogen doped graphene oxide gold (N2-GO-Au) nanohybrid in caprine Wharton's jelly derived mesenchymal stem cells (WJ-MSCs) and erythrocytes.	Jou. of Entom. and Zool. Studies.	8(1):1608-1612	
16	Abinash Kumar, Nitin E Gade, O. P Mishra, J.R. Khan, <u>S. A. Dhenge</u> , S.K. Yadav and Anupam Soni	2020	Effects of graphene quantum dots on physiological characteristics of Caprine oocyte maturation.	Jou. of Entom. and Zool. Studies.	8(1):896-899	
17	Abinash Kumar, Nitin E Gade, O P Mishra, G K Dutta, <u>S A Dhenge</u> , S K Yadav, Anupam Soni and Shyamdeo Kumar	2020	Effects of graphene quantum dots on physiological characteristics of Caprine spermatocytes.	The Pharma Innov. Jou.	9(8):127-135	
18	V.N. Khandait, A.V. Tiple and <u>S.A. Dhenge</u>	2020	Assessment of relationship between personal and socio-economic characteristics with adoption of backyard poultry rearing practices in Bhandara district of Maharashtra.	Int. Jou. of Agri. Ext. & Social Devel.	3(1): 58-62	
19	<u>Dhenge, S. A.</u> , Gade, N.E., Mishra, O.P., Kumar, A. and Khandait, V.N.	2021	In vitro Cytotoxicity Analysis of Hybrid Graphene Oxide (hGO) Nano Structures in Caprine Wharton's Jelly	Ind. Jou. of Ani. Res.	55(5): 530-535	

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			Derived Mesenchymal Stem Cells (WJ-MSCs).			
20	<u>Dhenge S. A.</u> , Gade N.E., Mishra O.P., Abinash Kumar and Vaidya M.M.	2021	Analysis of hybrid graphene oxide nanocomposites (hGO NCs) in vitro hemolytic impact in caprine erythrocytes.	J. Ento. & Zool Stud.	9(6): 256-258	
22	M M Vaidya, V B <u>Dongre, S A Dhenge</u> , L S Kokate, V N Khandait and S V Singh	2022	Comparative efficacy of three different heat tolerance indices for thermo-adaptability during heat stress in bovines	Indian J Dairy Sci	75(5): 453-457	
23	<u>S. A. Dhenge</u> , M. M. Vaidya, V. B. Dongre, V. N. Khandait and S. V. Singh.	2023	An investigation on growth and adaptability of Marathwadi buffaloes in the native breeding tract.	Indian J Dairy Sci.	76(2): 188-190	
24	V.B. Dongre, V.N. Khandait, L.S. Kokate, M.M. Vaidya, G.R. Channa, <u>S.A. Dhenge</u> , A.D. Patil, G.M. Gadegaokar, S.B. Kale	2023	Application of mathematical equations to describe lactation curves in buffaloes	Journal of Livestock Sci.	14: 122-128	
25	Kature V.D., Channa G.R., Pawankar K.N., Avhad S.R., <u>Dhenge S.A.</u> , Chavan P. R., Karhale V.V. and Kawade S.B.	2023	Estimation of the water footprint in Osmanabadi goat	The Pharma Innovation Journal.	12(5):41 41-4145	
26	Vaidya, M. M., <u>Dhenge, S. A.</u> , Dongre, V.B. and Singh, S.V.	2023	Role of HSP and Leptin in Dairy Animals during Thermal Stress: A Review.	Agricultural Reviews	44(3): 370-374	
27	Vaidya, M. M., Singh, S.V., <u>Dhenge, S. A.</u> , Dongre, V. B. and Gadegaokar, G. M.	2023	Status of Plasma Heat Shock Protein-72 in Peri- parturient dairy cows during thermal and metabolic Stress.	Journal of Livestock Science,	14: 246-250	
28	<u>S A Dhenge</u> , M M Vaidya, V B Dongare, V N Khandait, G R Channa, P M Ghule and G M Gadegaonkar	2024	Analysis of correlations among biometrical traits and coefficients of adaptability of Deoni cattle	Int. Jou. of Vet. Sci. and Ani. Husb;	SP-9(2): 416-419	
29	P M Ghule, S B Lambate, M M Chudasama, S S Sole, R G Nimase, <u>S A Dhenge</u> , R C Kulkarni and S P Awandkar	2024	Histochemical study of the uterus during various phases of estrus cycle in buffalo (Bubalus bubalis)	Int. Jou. of Advanced Bioche. Res.	SP-8(5) 348-353	

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30	A C Ghodake, S S Pitlawar, R V Suryawanshi, <u>S A Dhenge</u> , S G Chavhan, P M Ghule and A A Nirmale	2024	Study on evaluation of anaesthetic efficacy of diazepam-ketamine-guaifenesin combination for relieving esophageal obstruction in 12 buffaloes	Int. Jou. of Vet. Sci. and Ani. Husb..	9(3):503-506	
31	M.M. Vaidya, <u>S.A. Dhenge</u> , V.B. Dongre, G.M. Gadegaonkar, S.A. Amrutkar, G.R. Channa, S.S. Ramteke and S.V.Singh.	2025	Evaluating growth profiles and adaptability of Deccani sheep: insights for summer season management.	J. Livestock Sci.	16: 136-143	
32	M. Vaidya, <u>S. Dhenge</u> , V. Dongre, G. Chandra, S. Amrutkar, G. Gadegaonkar, S. Ramteke, S.V. Singh	2025	Assessing growth patterns and adaptability of Osmanabadi goats during summer season.	J. Livestock Sci.	16: 261-269	

List of Marathi and Popular articles published: As per list attached in PDF

Sr. No	Authors	Year	Title	Name of the Journal/Magazine	Volume : Page Nos.
1	Dr. Sandeep Dhenge, Dr. Prajakta Kuralkar and Dr. Dinesh Jagtap	Feb. 2010	Janavaranchya Khadyat Sukshma Khanij Dravanche Mahtva	Baliraja	58-59
2	Dr. Sandeep Dhenge, Dr. Prajakta Kuralkar and Dr. Dinesh Jagtap	Feb. 2010	Azola: Ek Paryaayi Prathinyukta Purak Khadya	Baliraja	74-75
3	Dr. Sandeep Dhenge and Prajakta Kuralkar	Dec. 2010	Dugdha Vyavasaayatil Ghatak Va Naphyavar Parinaam Karnarya Baabi	Godva sheticha	40-41
4	Dr. Sandeep Dhenge and Prajakta Kuralkar	Feb. 2012	Mhaispalan: Pashudhanat Mahtvapurna Yogdan	Baliraja	21-22
5	Dr. Sandeep Dhenge, Prajakta Kuralkar and Dr. Dinesh Jagtap	Feb. 2012	Mhaispalan Va Prajotpaadankriya samsya va Tyavaril Upay	Baliraja	107-108
6	Dr. Sandeep Dhenge and Prajakta Kuralkar	Mar. 2012	Parasbagetil Kombdipalan: Ek Faaydeshir Shetipurak Vyavasaay	Baliraja	21-23
7	Dr. Sandeep Dhenge and Prajakta Kuralkar	Sept. 2012	Mhasinche Prajanana: Samsya Va Upayyोजना	Shetimitra	17-18
8	Dr. Sandeep Dhenge	Nov. 2014	Vasaranmadhil Aajar Olkha aani Upchaar kara	Agrowon	12
9	Dr. Sandeep Dhenge	Nov. 2014	Janavarana Dya Pureshe Khadya	Agrowon	12

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10	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Oct. 2019	Nar Redke: Masakarita Navin Shrot	Godva sheticha	69
11	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	April 2020	Yojak (Designer) Dugdh Utpaadan va Fayade	Baliraja	62-64
12	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	July 2020	Havaman Badlache Pashudhanavar Honare Parinam	Godwa sheticha	77-79
13	Dr. Sandeep Dhenge and Dr. Vivek Khandait	July 2020	Gayee-Manshiche Vyavsthapan	Agrowon	12
14	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Aug. 2020	Gayee- Masnshicya Vasranche Sangopan aani Poshan.	Baliraja	26-29
15	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Sept. 2020	Janavaratil Dhanurvati Rogachi Lakshnae va Upayyojana	Baliraja	31-33
16	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Oct. 2020	Faydeshir Shelipalan Vyavasaay	Agrotouch	30-33
17	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Nov. 2020	Shelanche Aajar Vyavasthapan	Baliraja	90-92
18	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Feb. 2021	Vanaushdhine Panshuchya Upchaar Paddhati	Shetkari	44-45
19	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	May 2021	Unhaalyat Pashudhanache Vyavasthapan	Shetkari	32-33
20	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	May 2021	Mhashiche Prajananan Vyavsthapan	Agrotouch	17-18
21	Dr. Sandeep Dhenge and Dr. Vivek Khandait	May 2021	Unhalyatil Manshiche Vyavasthapan	Agrowon	11
22	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	June 2021	Mansoonpurva Pashudhan Vyavasthapan	Shetkari	44-45
23	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	July 2021	Pawasalyatil Panshuche Rog aani Upaay	Shetkari	53-54
24	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Dec. 2021	Shelyanchya Jati Aani Vyavasthapan	Shetkari	51-52
25	Dr. Sandeep Dhenge	Feb. 2022	Panshuo Ki Garbhanal Ke Stem Cells Se Hoga Gambhir Bimari Ka Elaj	Haribhumi	06

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26	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Feb. 2022	Gayee-Mhashinche Chayapachayaache Vikar	Shetkari	46-48
27	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Mar. 2022	Vaasarnachya Martukiche Karne Aani Pratibandhatmak Upayyojana	Agrotouch	25-28
28	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Ram Kulkarni	June 2022	Kukkutpalan Prakshetrach Swacchta Aani Nirjantukikaran	Agrotouch	36-38
29	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Jan. 2023	Gayee-Mhashitil Dugdh Jwar (Milk Fever)	Agrotouch	39-40
30	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Vivek Khandait	Feb. 2023	Gir Gaay : Dudhakarita Shuddh Deshi Gowansh	Agrotouch	31-32
31	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Ganesh Gadegaonkar	May 2023	Unhalyat Pashunche Dainandin Aahar Vyavsthapan	Shetkari	50-51
32	Dr. Sandeep Dhenge	May 2023	Dubhatya Janavaranche Vyavsthapan	Agrowon	12
33	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Ganesh Gadegaonkar	July- Aug. 2023	Pawasalyatil Pashudhanache Rog Vyavsthapan	Agrotouch	38-40
34	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya, Dr. Ganesh Gadegaonkar and Dr. Gangaprakash Channa	Aug. 2023	Pawasalyat Ativrutidarmyan Pashadhanache Vyavsthapan	Shetkari	46-47
35	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Ganesh Gadegaonkar	Sept. 2023	Janavaranchya Sharirik Kriyanche Mojmaap	Agrowon	10
36	Dr. Sandeep Dhenge and Dr. Mangesh Vaidya	Oct. 2023	Janavaranchya Aajaravawar Upyukt Aaushdhi Vanspati	Agrowon	10
37	Dr. Sandeep Dhenge, Dr. Mangesh Vaidya and Dr. Gangaprakash Channa	Nov. -Dec. 2023	Dugdh aani Dugdhjanya Padarthamadhil Bheshlimule honare apaay aani Bheshal Olkhanychya Paddhati	Shetkari	66-68
38	Dr. Sandeep Dhenge and Dr. Mangesh Vaidya	May 2024	Vaadhatya Taapmanat Janavaranche Vyavsthapan	Agrowon	10
39	Dr. Sandeep Dhenge and Dr. Ganesh Gadegaonkar	May 2024	Kombdyamadhil Taanache Vyavsthapan	Agrowon	10

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40	Dr. Sandeep Dhenge and Dr. Mangesh Vaidya	May 2024	Janavaratil Chayapachayaache Aajar	Agrowon	10
41	Dr. Sandeep Dhenge, Dr. Prakash Ghule and Dr. Vivek Khandait	Jan. 2025	Dudhal Janavarantil Aajaranche Niyantaran..	Agrowon	10
42	Dr. Sandeep Dhenge and Dr. Prakash Ghule	April 2025	Taapmaan Vadhimadhe Janavaranche Vyavasthapan	Agrowon	10

6. Research Recommendations: Nil

Sr. No.	
Year	
Project Title	
Investigators	
Recommendations	

7. MOU signed by the Colleges

Sr. No.	MOUS Between	Date of signing	Place	Duration
	Party – I & Party - II			

8. Research Priorities / Thematic areas: Department Wise

9. Significant Research Achievement: Nil

Sr. No.	Achievements	Description
1	Patents Awarded	
2	Breed Registration	
3	IPR	
4	Copyright	
5	Trademark	