

Department of Animal Nutrition

Research Activities

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/Ongoing)	Duration
1.	Assessment of mineral profile relationship of animals, soil, feeds and fodders in Maharashtra for improvement of livestock production	PI Dr. A. B. Kanduri Co-PI Dr. N. Z. Gaikwad	Govt. of Maharashtra	11.39 lacs	Extra-mural	Completed	2008-2012
2.	“Strengthening of Feed Testing Laboratory” at COVAS, Udgir	Dr. A. B. Kanduri Asst. Professor	Dept. of Animal Husbandry, Govt. of India, New Delhi	Rs.200 Lakhs	Extra-mural	Completed	2015-2016

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
1.	Comparative Efficacy of Herbal Amino Acid Supplements with Synthetic Amino Acid Supplements on Broiler Performance	PI Dr. A. B. Kanduri Co-PI Dr. V. K. Munde Dr. N. Z. Gaikwad Dr. G. R. Gangane Dr. S. S. Kokane	M/s. Ayurved Pvt. Ltd. Baddi	Rs.49,000/-	Extra-mural	Completed	2008-09
2.	Efficacy evaluation of herbal supplementation on serum and egg yolk cholesterol in layers.	PI Dr. A. B. Kanduri Co-PI Dr. V. K. Munde Dr. N. Z. Gaikwad Dr. S. J. Manwar Dr. S. S. Kokane	M/s. Ayurved Pvt. Ltd. Baddi	Rs.45,000/-	Extra-mural	Completed	2009-10
3.	Comparative efficacy of natural growth promoters with antibiotic supplements	PI Dr. A. B. Kanduri Co-PI Dr. V. K. Munde Dr. M. A. Khan Dr. P. N. Thakur	M/s. Ayurved Pvt. Ltd. Baddi	Rs.45,000/-	Extra-mural	Completed	2010-11

	on broiler performance.	Dr. S. S. Kokane					
4.	Effect of Herbal supplementation on Lean Meat production of Broiler chicken.	PI Dr. A. B. Kanduri Co-PI Dr. V. K. Munde Dr. M. A. Khan Dr. S. S. Kokane	M/s. Ayurved Pvt. Ltd. Baddi	Rs.45,000/-	Extra-mural	Completed	2011-12
5.	Evaluation of palatability of condensed molasses soluble (CMS) and its blend with cane molasses (50:50) supplemented to dairy cattle concentrate mixture	PI Dr. G. M. Gadegaonkar Co-PI Dr. G. R. Channa, Dr. L. S. Kokate, Dr. V. B. Dongre, Dr. P. V. Patil	M/s. Oriental Yeast India Private Limited	Rs.276192/-	Extra-mural	Completed	2024-25

3. Research Priorities:

Sr. No.	Research Area	Aim	Objective	Benefits of Farmers
1.	Effect of various feed supplements and additives on performance of broiler birds and ruminant animals	To assess the effect of various feed supplements and additives on performance of broiler birds and ruminant animals	To study the effect of various feed supplements and additives on the performance of poultry birds and ruminant animals in terms of growth performance, milk yield and its composition, feed efficiency, nutrient digestibility, blood biochemical profile and rumen fermentation pattern and economics of using supplements and additives. Such study will help in optimization of dose of supplements and additives in poultry birds and ruminant animals ration	Economic poultry and dairy farming
2.	Effect of inclusion of various unconventional feed stuffs on the performance of broiler birds and ruminant animals	To assess the effect of inclusion of various unconventional feed stuffs on the performance of broiler birds and	To study the effect of various unconventional feed stuffs on the performance of poultry birds and ruminant animals on	Economic poultry and dairy farming

		ruminant animals. Such study will also in minimizing the gap between availability and requirement of feedstuffs.	growth performance, milk yield and its composition , feed efficiency, nutrient digestibility, blood biochemical profile and rumen fermentation pattern and economics of using various unconventional feed stuffs. Such study will help in optimization of inclusion of various unconventional feed stuffs in poultry and ruminant animal ration	
3.	Effect of bypass/ protected nutrients on the performance of ruminant animals	To see the effect of various bypass/ protected nutrients on the performance of ruminant animals	To study the feeding bypass/ protected nutrients on the performance of ruminant animals on growth performance, milk yield and its composition , feed efficiency, nutrient digestibility, blood biochemical profile and rumen fermentation pattern and economics of using bypass nutrients. Such study will help in optimization of dose of bypass/ protected nutrients in ruminant ration	Economic poultry and dairy farming

4. Thesis:

Master:

Name of Department :				
Sr. No.	Name of the Student	Title of Thesis	Year of Completion	Name of the Advisor
1.	Mr. H. S. Narute	Effect of herbal combinations on performance of Osmanabadi goat kids.	2012	Dr.A.B. Kanduri
2.	Mr. S. M. Gacche	Utilization of Distillers Dried Grains with Solubles in Broiler Chicken Diet.	2013	Dr.A.B. Kanduri

3.	Mr.M.S. Rawekar	Partial replacement of Soybean meal with Distillers Dried Grains with Solubles and Azolla in Broiler chicken diet.	2014 -	Dr.A.B. Kanduri
4.	Mr. G. B. Shinde	Utilization of Tamarind (Tamarindus indica L.) pulp as feed supplement in broiler chicken.	2015	Dr.A.B. Kanduri
5.	Mr. P.B. Biradar	Utilization of Tamarind (Tamarindus indica L.) pulp as feed supplement in layer chicken.	2016	Dr.A.B. Kanduri
6.	Mr. A.B. Kuldipkar	Fatty acid profile of broiler chicken meat fed on various edible oil and tallow included diet	2017	Dr. A. B. Kanduri
7.	Miss. C. P. Shelke	Effect of dietary inclusion of Mulberry (Morus alba) leaf meal supplemented with multi-enzyme on performance of broiler chicken	2018	Dr.S.A. Amrutkar
8.	Mr. A.R. Arun kumar	Effect of dietary inclusion of hedge Lucerne (Desmanthus virgatus)leaf meal supplemented with multi-enzyme on performance of broiler chicken	2018	Dr.S.A. Amrutkar
9.	Mr. P.P. Devkate	Effect of dietary supplementation of a-Calcidiol on performance of broiler chicken	2019	Dr. S.M . Durge
10.	Miss. Banani Gantayat	Effect of dietary supplementation of short chain and medium chain fatty acids on performance of broiler chicken	2019	Dr. S.M . Durge
11.	Miss. M. O. Dhage	Dietary supplementation of soapnut shell powder on performance of broiler chicken	2021	Dr. S.M . Durge
12	Shri. D.S. Kuthar	Utilization of cnidoscolusaconiti folius leaf meal in concentrate mixture of growing osmanabadi goats	2021	Dr. S.M . Durge

13.	Miss. S.B. Raut	Effect of Dietary Supplementation of <i>Tinospora cordifolia</i> (Giloy) Powder on Performance of Broiler Chicken	2022	Dr. G.M. Gadegaonkar
14.	Shri S.Yerole	Effect of Supplementation of Microencapsulated Essential Oils on Performance of Growing Goats	2022	Dr. G.M. Gadegaonkar
15	Shri. M.V. Dhaygude	Effect of dietary supplementation of herbal choline on performance of broiler chicken	2023	Dr. G.M. Gadegaonkar
16.	Shri. S.S. Kawathe	Effect dietary supplementation of creatine monohydrate powder on performance of broiler chicken	2023	Dr. G.M. Gadegaonkar
17.	Shri. G. S. Gavhad	Effect supplementation of Oregano essential oil on performance of broiler chicken	2024	Dr. G.M. Gadegaonkar
18.	Shri. A. N. Sontakke	Effect dietary supplementation of glycerine polyethylene glycol recinoleate emulsifier on performance of broiler chicken fed low energy diet	2024	Dr. G.M. Gadegaonkar

Doctoral: NIL

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

5. Research Papers Published:

List of Research Publications:

Sr. No.	Authors	Year	Title of the Research Paper	Name of the Journal	Volume; Page Nos.	NAAS Rating, if any
1.	H. S. Narute, A. B. Kanduri, P. V. Patil & M. A. Khan	2015	Effect of Herbal combination on the hematological and serum Biochemical profile of Osmanabadi Goat kids.	The Indian Veterinary Journal	92 (7): 59-61,	4.99
2.	A. B. Kanduri, V. K. Munde, M.A. Khan, P. N. Thakur, M.J. Saxena, K.	2013	Study on the Comparative Efficacy of Natural Growth Promoter (AV/AGP/10) with	British Microbiology Research Journal	3(4):623-634,	5.14

	Ravikanth, A. Thakur and Shivi Maini		AntibioticSupplements on Overall Growth Performance and Intestinal Micrometry of Broiler Birds.			
3.	D. K. Verma, G. M. Gadegaonkar, B. N. Ramteke, S. Jaiswal, S. D.Jagadale and G. Darban	April-June 2022	Effect of supplementation of probiotics and rumen buffers on performance of lactating buffaloes	Buffalo Bulletin	Vol. 41 No.2, pg. 293-298.	6.2
4.	B.N. Ramteke, S. Jaiswal, G. M. adegaonkar, S. D. Jagadale and N. R. Karambele	October - Decemb er 2022	Effect of Zinc and vitamin E supplementation on production performance of lactating buffaloes	Buffalo Bulletin	Vol. 41 No.4, pg 555-560	6.2
5.	S. Khemlapure, B. N. Ramteke, G. M. Gadegaonkar, N. R.. Karambele and S D Jagadale	2022	Effect of supplementation of combination of prebiotics and acidifier on performance of broiler chicken	The Indian Journal of Veterinary Sciences & Biotechnolog y	18(3):11 2-114	5.25
6.	Kapale P. M. , A S Nagvekar, B N Ramteke, N R Dagli, S D Ingole and G. M.Gadegaonkar	2022	Effect of season on seminal plasma enzymes and testosterone concentration in Holstein Friesian X Gir crossbred bulls	The Pharma Innovation Journal	SP - 11(6): 1816-1819	
7.	A A. Rumne, B N Ramteke and G. M. Gadegaonkar	2022	Effect of supplementation of Bypass fat during pre and post parturient period on lactation in crossbred cows	Journal of KrishiVigyan ,	Vol. 10 Issue -2	4.95
8.	S.S. Kawathe, G.M. Gadegaonkar, R.C. Kulkarni, G. R. Channaand M. V. Dhaigude	2023	Effect of creatine monohydrate on performance of broiler chicken	Indian Journal of Animal Nutrition	40(2), 174-180	5.19
9.	M. M. Vaidya, S.V.Singh., S.A. Dhenge, V.B. Dongre and G.M. Gadegaonkar	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	4.53
10.	S.S. Gond, Channa GR, Pawankar KN, Gadegaonkar GM, Jadhav PV, Avhad SR, Madnurkar CI, Kawade SB and Karhale VV	2023	Studies on Socio-economic status of donkey owners and reproductive parameters of Jenets in Marathwada region of Maharashtra, India	International journal of Veterinary Science and Animal Husbandry	8(2), 88-92	4.61
11.	PM Kapale, GM Gadegaonkar, AS Nagvekar, SD Ingole, KN	2024	Effect of season on crossbred bull on semen characteristics and	International Journal of Research in Agronomy	SP-7(2), 40-43	5.20

	Pawankar, SY Shirale and PM Ghule		seminal plasma enzymes of fresh semen			
12.	PM Kapale, GM Gadegaonkar, AS Nagvekar, SD Ingole, SV Bharucha, KN Pawankar, SY Shirale and PM Ghule	2024	Influence of seasons on cow bull seminal plasma testosterone and proteins	International Journal of Veterinary Science and Animal Husbandry,	9(1), 1370- 1374	4.61
13.	SS Narale, GM Gadegaonkar, BN Ramteke, NR Karambele, PM Kapale, SY Shirale, AP Dhok and KN Pawankar	2024	Influence of bypass protein with or without fat on lactation performance of crossbred cows	International Journal of Veterinary Science and Animal Husbandry	9(1), 1169- 1172	4.61
14.	AS Awale, NR Karambele, BN Ramteke, KN Yadav, GM Gadegaonkar and SD Jagadale	2024	Effect of Supplementation of dried yeast and fungi on yield and quality of milk in crossbred cows	International Journal of Veterinary Science and Animal Husbandry	9(2),169- 172	4.61
15.	V. B. Dongre, V. N. Khandait, L.S. Kokate, M.M. Vaidya, G.R. Channa, S.A. DHenge, G.M. Gadegaonkar and S.B. Kale		Application of mathematical equations to describe lactation curves in buffaloes	Journal of Livestock Science	14, 122- 128	4.53
16.	A. Kumar, R.C. Kulkarni, S.P. Awandkar, N.Z. Gaikwad, N.V. Khode, S.G. Chavhan, G.M. Gadegaonkar	2024	Dietary addition of Betaine on the performance of broilers fed with dets with a reduction in methionine and choline	Journal of Advances in Biology and Biotechnolog y	27(6):95 5-967	
17.	S.G. Rane, B.N. Ramteke, G. M. Gadegaonkar, N.R. Karambele and S.D. Jagadale	2024	Effect of supplementation of herbal mixture on milk production and its composition in crossbred cows	International journal of Advanced Biochemistry Research	SP- 8(8):603- 607	5.29
18.	Mohammed Omair, G. M. Gadegaonkar, B.N. Ramteke, N.R. Karambele, S.D. Jagadale and M.M. Vaidya	2024	Effect of supplementation of herbal mixture on performance of growing goats	International journal of Advanced Biochemistry Research	SP- 9(1):138- 143	5.29

19.	K.L. Katenge, M.V. Khodke, N.Z. Gaikwad, M.J. Sanap, G. M. Gadegaonkar, R.K. Jadhav and M.M. Vaidya	2024	Serum mineral profile alterations in lactating and non-lactating Osmanabadi goats of Marathwada region	International Journal of Veterinary Sciences and Animal Husbandry	SP 9(6):06-08	4.61
20.	K.V. Shinde, P.M. Kapale, S.P. Waghmare, D.M. Badukale, S.W. Hajare, A.G. Ginode, G.M. Gadegaonkar and A.N. Solanke	2024	"Effect of cow urine distillate fortified with Curcuma amada extract therapy on subclinical mastitis in cows".	International Journal of Veterinary Sciences and Animal Husbandry	SP 9(4):215-219	4.61
21.	B.S. Dongare, R.C. Kulkarni, B. Vasanthi, S.P. Awandkar, N.Z. Gaikwad, G.M. Gadegaonkar, M. Raziuddin, A. More	2024	Effect of coated calcium feeding on growth performance, carcass traits, immunity, blood biochemistry and tibial bone morphometry in commercial broiler chicken	Tropical Animal health & Production	56:355	7.7
22.	M. Vaidya, S. Dhenge, V. Dongre, G. Gadegaonkar, S. Amrutkar, G.R. Channa, S.S. Ramteke, S.V. Singh	2025	Evaluating growth profiles and adaptability of Decani sheep: insights for summer season management	Journal of Livestock Science	16:136-143	6.40
23.	M. Vaidya, S. Dhenge, 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	Journal of Livestock Science	16:261-269	6.40

List of Marathi and Popular articles published:

Sr. No	Authors	Year	Title	Name of the Journal/Magazine	Volume: Page Nos.
1.	Dr. G. M. Gadegaonkar	5/4/2022	Tayar kara paushtik pashu khadya	Sakal Agrowon	12
2.	Dr. G. M. Gadegaonkar	2/8/2022	Kombdyan sathee poshak khadyache niyojan	Sakal Agrowon	12

3.	Dr. G. M. Gadegaonkar	3/8/2022	Santulit Kombdy khady nirmitchiche tantr	Sakal Agrowon	10
4.	Dr. G. M. Gadegaonkar	8/8/2022	Yogya prajanan, dudh utpadanasathee samtol aahar mahatwacha	Sakal Agrowon	
5.	Dr. G. M. Gadegaonkar	9/8/2022	Pashu aaharat khaneej mishran, jiwansatve mahatwachee	Sakal Agrowon	10
6.	Dr. M. M. Vaidya, Dr.S. A. Dhenge, Dr. Ganesh Gadegaonkar and Dr.NarendraKhod e	Jan, 2023	Duskal Paristhitit Pashudhanachya Charyache Niyojan.	GODWA SHETICHA Marathi Masik	75-76
7.	Dr. Mangesh Vaidya, Dr. Sandeep Dhenge, Dr. G. M. Gadegaonkar & Dr. N.R. Khode	February 2023	Badaltya rutumananuser pashunhe khadya vyavasthapan	Godwaa sheticha Magazine	77-78
8.	Dr. Mangesh Vaidya, Dr. Sandeep Dhenge, Dr. G. M. Gadegaonkar & Dr. N.R. Khode	July 2023	Rutu badlacha janavaranche aarogya aani utpadanavar honar parinam	Godwaa sheticha Magazine	74-75
9.	Dr. Mangesh Vaidya, Dr. Sandeep Dhenge, Dr. G. M. Gadegaonkar & Dr. N.R. Khode	July 2023	Pavsalyatil pashudhanache vyavasthapan	Godwaa sheticha Magazine	80-81
10.	Dr. G. M. Gadegaonkar, Dr.S. A. Dhenge, Dr. M. M. Vaidya,	22/5/2023	Dudhatil snigdhanshavr parinam karnare ghatak	Sakal Agrowon	12
11.	Dr.S. A. Dhenge, Dr. M. M.	12/9/2023	Janavarachya sharirik kriyanche mojmap	Sakal Agrowon	10

	Vaidya, Dr. G. M. Gadegaonkar				
12.	Dr. A.S. Patil, Dr. G. M. Gadegaonkar, Dr.S. A. Dhenge,	26/9/2023	Tanta darjedar murghaas nirmittiche	Sakal Agrowon	10
13.	Dr. Ajit Patil, Dr. G.M. Gadegaonkar,	4/11/2023	Hirvya charysathee hydroponics tantra	Sakal Agrowon	12
14.	Dr. G. K. Shengepallu, Dr. G. M. Gadegaonkar, Dr.S. A. Dhenge	12/12/2023	Layer kombadyanche aahar vyavasthapan	Sakal Agrowon	12
15.	Dr. Ajit Patil, Dr. G.M. Gadegaonkar, S.A. Dhenge	30 January 2024	Darjedar azolla nirmittiche tantra	Sakal Agrowon	12
16.	Dr. Ajit Patil, Dr. G.M. Gadegaonkar, S.A. Dhenge	11 June 2024	Nikrusht charyachi paushtikta vadhavinyache tantra	Sakal Agrowon	12
17.	Dr. G.M. Gadegaonkar, Dr. S.A. Dhenge	16 July 2024	Pashu poshanasathi santulit aahar sankalpana	Sakal Agrowon	10
19.	Dr. M. V. Khodke, Dr. G.M. Gadegaonkar	24 Aug 2024	Pashu dhanamadhye rakt tapasniche mahatva	Sakal Agrowon	12

Research Recommendations

Sr. No.	1
Year	2024
Project Title	Effect of supplementation of Oregano essential oil on performance of broiler chicken
Investigators	G. S. Gavhad, G.M. Gadegaonkar, M.M. Vaidya, R.C. Kulkarni, S.G. Chavhan, S.P. awandkar and S.J. Komatwar
Recommendations	It is recommended to supplement oregano essential oil @400 mg/kg in broiler feed for improved growth performance, gut health and profitable broiler production

6. 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

Sr. No.	Research priorities/ Thematic areas
1.	Effect of various feed supplements and additives on performance of broiler birds and ruminant animals
2.	Effect of inclusion of various unconventional feed stuffs on the performance of broiler birds and ruminant animals
3.	Effect of bypass/ protected nutrients on the performance of ruminant animals

9. Significant Research Achievement:

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

Awards / Recognitions:

Sr. No.	Name of Student	Name of Award / Achievement	Place	Date	Awarding agency
1.	Dr. G.S. Gavhad	III Prize for poster presentation (Poultry & Monogastric animal nutrition)	NVC, Nagpur	22/01/2025	WANACON-2025 Conference organized by Department of Animal Nutrition, Nagpur Veterinary College, Nagpur & Animal Nutrition Association, Nagpur
2.	Dr. A. N. Sontakke	II Prize for Best paper Oral presentation (Novel feed supplementation)	NVC, Nagpur	22/01/2025	WANACON-2025 Conference organized by Department of Animal Nutrition, Nagpur Veterinary College, Nagpur & Animal Nutrition Association, Nagpur